The Body of Chinese Medicine and Contemporary Practice

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Certificate

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Mary Garvey
October, 2011

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Abstract

Chinese medicine is changing rapidly in response to scientific advances and technologies, and the biomedicalisation of its traditional practices has become a global trend. Australia seems likely to follow this trend for many reasons, not the least of which is a lack of access to traditional sources. The thesis argues that, to the extent that biomedicalisation by-passes Chinese medicine's traditional concepts and frameworks, it disrupts diagnostic reasoning and alters the clinician's therapeutic options. The argument assumes that Chinese medicine's traditional conceptions are the basis of its therapeutic reasoning and decision making, that traditional conceptions guide successful clinical practice, and that contemporary clinicians understand them.

However, the odds against today's English speaking clinicians understanding the Chinese medical tradition are high. Access to premodern primary sources is problematic for non-Chinese speakers, and Chinese medicine texts in English have removed the historical and cultural contexts and meanings of traditional concepts to 'scientise' their content. Conversely, historical and anthropological research into Chinese medicine investigates precisely this kind of contextual information, but without reference to its clinical relevance.

Rather than preserve the distinction between academic and clinical research, the thesis adopts a multidisciplinary approach to some of the issues facing Chinese medicine in Australia and the West. The significance of the study is threefold. First, it uses a broad range of English-language research and scholarship to re-imagine the traditional Chinese medical body. Second, its restoration of traditional perspectives draws out the internal intelligibility of premodern concepts and methods, and their relevance for contemporary clinical decision-making. Finally, its multidisciplinary and synthetic approach connects the interests of academic scholarship and clinical practice, and reinstates the traditional connections between Chinese medicine's conceptual frameworks and its clinical methods.

The thesis argues that it is possible for contemporary Westerners to maintain Chinese medicine's intelligibility as a system of medical practice. The decision to do so requires the careful restoration of traditional terms and concepts, and of the

medical gaze that privileges the living body's functional systems and activities. The restoration and re-imagining of Chinese medicine's traditional perspectives and methods connects contemporary Chinese medicine students and professionals to the complexity of this distinctive medical system. Our ability to recognise and understand the traditional Chinese medical body has ramifications for guiding diagnosis and therapeutic decisions, and fundamentally changes the clinical encounter.

While the thesis focuses on the reception and practice of Chinese medicine in contemporary Australia, I hope the issues and topics discussed will prove relevant for English speaking Chinese medicine professionals, educators, students and users in other parts of the world. Many of the topics and materials will be of interest to healthcare providers and users generally, and to anyone with an interest in socio-cultural, philosophical and clinical constructions of the body, health, illness and medical practice.

Introduction:

Background to the Study

Chinese medicine delivers almost forty per cent of total healthcare in present day China (Du 2005; Scheid 1999). In the early part of the twentieth century the Chinese government almost eradicated China's national medicine, but today it is fully institutionalized: the training, qualification and practice of traditional therapies are run by the state. Alongside modern biomedical healthcare, Chinese medical healthcare is government supported, and mainly hospital based.

The sheer size of the numbers represented by the forty per cent figure in China should raise questions here about relegating Chinese medicine (CM) to the 'alternative' health practices basket. While it is unlikely that Australia will adopt a policy to integrate biomedical and traditional Chinese medical practices similar to that in mainland China, Australians frequently turn to CM as their preferred option, or to experience a different approach, or because their biomedical options are unsuitable.

Inside China, the effects of its integrated medical system have been significant in terms of social policy and healthcare delivery. Outside China, Chinese medicine could have much to offer other healthcare systems if the rest of the world can be convinced of its efficacy through clinical trials and drug development. Many Chinese medical texts nowadays are written to this end, for clinicians and researchers who want to utilise Chinese medicine within a Western medical framework (Chang 1992; Chen 1994; Chen & Chen 2004; Hou 1995; Liu & Liu 1998; Zhang 2003).

'Western medicine' or 'biomedicine' is the contemporary, mainstream, scientific tradition of medical practice that developed in Europe from the late eighteenth century (Foucault 2003). Even though it has since been adopted internationally, the world's most easterly countries, including China and Australia, still refer to it as 'Western'. I will use the term biomedicine (BM) in place of Western medicine for two reasons. First, 'Western' seems inappropriate for contemporary, scientific medicine when institutions in Japan, China and Korea for example, research and

practice it rigorously and effectively. Second, although modernisation, scientisation and biomedicalisation may be accompanied by Westernisation, they are not the same thing.

Fundamental differences between CM and BM constitute the basis for ongoing intellectual and political tensions between the two, and to some extent within the integrated medical and healthcare industries in Taiwan and mainland China (Chi 1994). A more pluralistic model applies in Australia, and here, the education and practice of BM and CM are likely to co-exist independently for quite some time. In Australia, the training of CM clinicians moved from small private colleges into the government supported university system in 1992 in Melbourne, and 1994 in Sydney.

Theoretically at least, medical pluralism recognises the value of choice and does not encroach upon ‘mainstream’ or ‘alternative’ medical systems. In fact however, the present climate globally and locally favours a bio-scientific medical system validated by controlled experimentation (Kaptchuk & Miller 2005b; Parusnikova 2002). China’s integrated healthcare and education model trains its medical students in traditional Chinese and biomedical disciplines for a health system that supports both. Australia’s CM degree programs qualify their graduates to practice CM only, while the profession is negotiating for national registration and a place at the mainstream healthcare industry table (Baer 2007).

BM is the dominant medical discourse in healthcare systems worldwide and evidence based medicine is the determiner of safety and efficacy, and therefore of ethical practice. In the Australian setting, CM must prove itself to a sceptical biomedical industry while at the same time promoting its complementary approach to the practice of medicine. To help situate CM in China and Australia today, I will introduce a few key developments and features here and link them to relevant areas of the literature in English.

CM is used today for the treatment of a wide range of medical conditions. In Australia, we seek CM treatment for both acute and chronic illnesses and receive either Chinese herbal or acupuncture therapy — the two most important branches of CM (Bensoussan & Myers 1996). However our ability to study and practice CM in Australia is hampered by a number of factors that have occurred with the transmission of CM from its original context. Specifically, these factors are related

to CM's language and literature, its history and development, its philosophical and methodological assumptions, and its viability in the contemporary sociopolitical–medical setting.

The problems of language and translation that confront English speaking students of CM could conceivably be solved by learning and translating Chinese. To this end, CM students at the University of Technology, Sydney can combine their degree with an International Studies' Chinese language and culture degree, and every year a few students take up this option. The majority of students however do not: the combined degree increases their full-time undergraduate program from four to six years and entails a twelve months stay in the People's Republic of China (PRC).

China's early medical texts are notoriously compact and difficult in any case, even for native Chinese speakers. Consequently, an enormous number of editions, revisions, commentaries and interpretations have accumulated around them over the centuries, and unfortunately, the few English translations of these materials are of variable quality (Sivin 1993, p. 207). Nathan Sivin and Paul Unschuld are today's most published and respected historians of CM. In Unschuld's (1993, p. 24) words:

> More than 12,000 titles of premodern Chinese medical literature from a period of about 2,000 years are available in libraries in China and other countries today, but not even a handful of these texts have been translated into modern languages in a philologically serious way. Hence, only some very basic historical tenets of traditional CM are known in the West.

We might expect that Chinese reading / speaking Australians would have an advantage here but understanding the concepts in early medical texts is not just a matter of language or translation (Zhu 2004). Part of this difficulty, and one of CM's distinctive features, is its continuous, dynamic and complex cultural history, as evidenced by its responsive and diverse textual archive.

Throughout the history of CM its 'tradition' has been one of its most remarkable assets, producing a unique nexus of medical theory and practice. Yet this aspect of CM seems most at risk today because of its cultural and historical distance, the pervasive dominance of BM, and their irreconcilable philosophical differences.

Whatever the premodern medical texts actually say, the fact is that early Chinese medical perspectives do not conform to contemporary scientific medical perspectives. So while its age and apparent efficacy can be fascinating for Western clinicians and users, pragmatists argue that CM should jettison the traditional packaging and adapt its therapeutic techniques and medicinal substances to the biomedical paradigm (for more on this debate see Scheid 2007; Unschuld 1985).

In 2002 the integration of scientific medicine and traditional medicines became part of a global health strategy promoted by the World Health Organization (Holliday 2003). For the successful integration of CM with BM, a fairly seamless and coherent approach to health care is required and to that end an enormous effort to research and revise CM has been undertaken in China and East Asia. Incompatible assumptions regarding the nature of reality, being and knowing (onto–epistemics) have been de-emphasised and scientific research has been applied to 'correct' and modernise CM and to align its practices with BM. CM's contemporary textbooks reflect many of these changes.

However, some CM scholars and senior physicians fear that CM will be eradicated by modernisation and the removal of its cultural heritage (Fruehauf 2009a, 2009b). Paul Unschuld (1992, p. 46) agrees, arguing that CM's two thousand years of relative stability was due to its legitimizing context — Imperial China's sociopolitical environment — and that the social ideologies and systems supporting Imperial China are what constituted CM's 'epistemological root'. Consequently, with the removal of the root (the end of the Imperial era), the tree (CM) dies. On the one hand, the fundamental changes that have occurred to CM since the end of the Imperial era lend weight to Unschuld's assessment; but on the other hand of course, CM is not quite dead yet.

Whether traditional CM has already died, is about to die, or whether it will successfully transform itself into a scientific compliment to BM, Western students and clinicians want to be able to access 'the tradition'. Traditionalism and idealism aside, there are some practical reasons to study traditional discourses. With little knowledge of its historical trends and advances CM clinicians today are doomed either to re-invent the wheel, or to replace it with dissonant constructs. Conversely, with a firm grasp of the Chinese medical tradition the profession in Australia is in a better position to negotiate what we are learning, teaching, practicing and

integrating. By studying Chinese medical history and its classic texts, students and clinicians are able to expand our understanding of how health, disease and the medical body can be conceptualised. This connects us with the tradition and a textual archive that allows us to incorporate a raft of time-honoured clinical methods and techniques.

With no professional bias towards promoting its clinical efficacy or effectiveness, historians, sinologists and ethnographers agree that once divorced from its conceptual basis, CM can no longer be a system of medicine, only an assortment of empirically applied remedies (Croizier 1976; Zhang 2007b). They argue further that the CM tradition cannot be fully understood outside the course of history and its sociocultural circumstances. A brief overview of CM's sociopolitical history to date follows to supply some of CM's context and background.

The story so far

Chinese history can be roughly divided into three periods: the 'Ancient' or pre-Imperial period; the Imperial era from the Qin to the Qing dynasties; and post-Imperial China. 'Imperial China' refers to the period from the unification of China in the Qin dynasty (221–207 BCE) until the end of the Qing dynasty (1644–1911 CE). Before the Qin, 'Ancient' or 'Feudal' China comprised various kingdoms, and at the end of the Qing, the Republic of China (1912), and then the People's Republic of China (1949) were formed. Although these three historical divisions (before, during, and after the Imperial era) refer to sociopolitical periods, they do overlap with a broad sweep of Chinese medical history. In this study I shall refer to pre-twentieth century (Imperial) China as 'premodern', and from the twentieth century as 'contemporary China'.

During the Warring States period (475–221 BCE) more nature-based explanations of life and illness replaced the magico–religious medicine of Ancient (pre-Imperial) China. From around the fourth century BCE, medical thinking fused the physical and non-physical aspects of the living human organism, and 'made [气 *qi*] the source of each' (Harper 1998, p. 119). From the beginning of the Imperial era, and especially from the Han dynasty (206 BCE–220 CE), Confucian rationalism dominated the literate medical tradition (Agren 1982, p. 573), while naturalistic

conceptions from Daoism and the Yin–Yang School (fourth century BCE) formed the basis of its theoretical doctrines.

Throughout its Imperial and post-Imperial history, CM has been disseminated through its written texts. There are a few earlier sources and texts, but CM's classical literature really begins after the unification of the empire and during the Han dynasty with the *Yellow Emperor's Internal Canon* (黄帝内经 *Huangdi Neijing*, *c*. 100 BCE), the *Canon of Difficult Issues* (难经 *Nanjing c*. 100 CE) and the *Treatise on Cold Damage and Miscellaneous Disorders* (伤寒杂病论 *Shanghan Zabing Lun c*. 200 CE). All the important medical works since have embraced the principles contained in them, and before the twentieth century, China's medical classics were learnt by rote as the first step of a medical student's training.

So for the 'tradition' of CM, that is for classical or premodern CM, scholars past and present rely on the extant written legacy of the last two thousand years. Premodern CM also included illiterate pedlars and small family businesses with closely guarded medicinal recipes and little else by way of written materials (Unschuld 2000). With passing reference to these forms of practice, CM historians and scholars tend to concentrate on its famous textual tradition, a tradition influenced by sociopolitical changes and steeped in philosophical meaning.

In premodern China, the transmission of CM consisted of reading and memorising by rote its medical classics, many years of apprenticeship with a practitioner of repute, and / or the reception along familial lines of the symptomatic application of secret remedies (Hsu 1999). The longevity of China's scholarly medical tradition has involved complex, ongoing processes of theoretical discussion and clinical testing over time. It was (and still is) common for CM physicians and scholars to remind their students and readers that ideas from the classics should be tested and explored clinically.

Historically, information about CM began to arrive in the West during the sixteenth century. Much of the West's early exposure to CM came via Japan, and the sequence of translations from Chinese to Japanese to Dutch then Latin, and finally to English, corrupted the meaning and intent of its terms and concepts (Bivins 2000; Lo 2006). For the next few hundred years, this rather patchy history of transmission via European missionaries, merchants and other travellers, produced

all kinds of misunderstandings. While CM ideas occasionally survived the journey, its therapeutic techniques were more often severed from their native concepts because Chinese perspectives of the human body were seen as misguided and ignorant of anatomy. Chinese medical notions of process and transformation apparently neglected the body's material structures and mechanisms. For instance, the Chinese medical body includes a network of channels that circulate and integrate 气 *qi* influences and substances, but neither the channels nor their contents could be found by anatomical dissection.

Scepticism and misunderstanding in the West were based on the rejection, ignorance or idealisation of Chinese perspectives. In Linda Barnes' (2005b) view, the litany of sceptical misunderstandings stemmed from Western observers' lack of access to Chinese language sources combined with their Eurocentric frame of reference: Eurocentrism 'represented time as progress … humanness as whiteness, and religiosity as Christian'. Barnes observes that other more favourable misinterpretations arose from a tendency to idealise or intellectually colonize China — seizing ideas 'like artefacts, and ranging them alongside ideas from disparate settings' (pp. 219, 221).

Then, during the nineteenth century, CM in China came under fire from the proponents of scientific medicine. Andrew Cunningham and Bridie Andrews (1997) remind us of some developments that impact on the story of medicine and the encounter between East and West during that time. For example, European philosophical determinism and positivism gave science some 'precise new meanings'; scientific medicine followed suit and applied the new models of physics and chemistry to the systematic observations, post-mortem and experimental investigations that were carried out within two institutions that arose at that time, the hospital and the laboratory; science began to be exported by Europe to its colonies and other trading countries; and China was subject to the political and mercantile attentions of the French, British, Russians, Germans and Japanese. Cunningham and Andrews' investigation of the relation between 'Western medicine' and Western Imperialism reveals that the new scientific model was a purely European enterprise. Its alien form of medical knowledge and practice was imposed upon foreign countries in the quest for political domination and the search for markets abroad.

With China's military defeats in 1895 and 1905,[1] and the collapse of Imperial China in 1911, Western medicine became even more influential. While CM physicians already had a sophisticated and internally consistent medical body image, for Chinese Nationalists it was a symbol of the backward, superstitious and irrational aspects of traditional culture that had so weakened China (Croizier 1976, p. 342). Superstitious and corrupt elements were therefore expunged from CM and aspects of scientific medicine, such as anatomy and germ theory, were 'grafted' onto it. Although CM was almost legislated into oblivion during this time, Bridie Andrews (1996b) explains that the dissemination of modern bio-scientific medicine was far from absolute or inevitable. The Chinese response to Western medicine in fact was complex, and initially its uptake was partial and determined locally according to its perceived usefulness.

Even so, at the beginning of the twentieth century the survival of China's national medicine seemed doubtful. Soon after the founding of the Republic of China in 1912, CM was excluded from China's education system and by 1928, proposals to prohibit traditional medical practices were introduced (Zhao 1991). In the late 1950's however, when Mao Zedong (毛泽东 1893–1976, first Chairman of the newly established PRC) declared Chinese medicine 'a great treasure house', its continued existence was ensured. Bridie Andrews' thesis, *The Making of Modern Chinese Medicine, 1895–1937* (1996a), and Kim Taylor's book *Chinese Medicine in Early Communist China, 1945-63* (2005), deal comprehensively with these events.

China's revolutionary period (1949–) resuscitated CM and instigated an ideological wave of revisions. Taylor (2005) shows how CM changed dramatically during this time, and how its role in the new People's Republic was dictated by state (Maoist revolutionary) policies. The Communist government initiated the collection and reassessment of China's medical heritage. New editions of classical texts were produced and some ancient collections that had been unavailable for centuries were reprinted. There was a concerted effort to record the folk and family lineage

[1] China's military strength and sovereignty had been severely weakened after the Opium Wars in the nineteenth century. Its defeats in the Sino–Japanese War (1894–95) and the Russo–Japanese War (1904–05) were another major blow to China's standing in the region. At that time political dominance in East Asia shifted from China to Japan, where Western influenced modernisation had changed Japan's economic and political fortunes.

practices because it was felt that these texts and practices were the communal property of the Chinese people (Porkert 1976, p. 76).

From the early twentieth century, CM colleges and curricula had begun introducing greater uniformity in the teaching and practice of CM. The systematization and standardization of knowledge were explicitly valued because they were understood by the Chinese as necessary for a scientific approach (Andrews 1996a; Hinrichs 1998). CM colleges, hospitals, and clinics were first established on a nationwide scale in the late 1950s and early 1960s as government run work units (Hsu 2000, p. 207). From 1958 the highest levels of Chinese government initially pursued the unification of CM and Western medicine, and then their integration as 'national policy… backed by strong public support' (Cai 1988, p. 526).

Twentieth century changes systematised and integrated many of the disparate currents that comprised premodern CM. These changes were far-reaching but only the most recent development in a tradition that had lost most of its *Yellow Emperor* (黄帝 *Huangdi c*. 100 BCE) corpus after the Han (after 220 CE) and instigated many large scale revisions in the centuries since. The new, twentieth century CM retained traditional concepts such as *qi* (气), *yin–yang* (阴阳), and the channel system (经络 *jingluo*), and added some of its own. Recent developments such as basic theory (基础理论 *jichu lilun*), visceral manifestation theory (脏象学 *zangxiang xue*) and treatment determined by pattern identification (辩证论治 *bianzheng lunzhi*) are neither premodern nor bio-scientific concepts.

Before the 1960's, the study of CM did not involve training courses or textbooks, there was no 'basic theory' or standardised approaches to treatment. But in the aftermath of European colonialism, the collapse of the Imperial state, internal armed struggles and the wars with Japan, the new People's Republic of China needed an affordable health service for its population. Its traditional medicine had to be modernised, and its biomedical doctors had to learn traditional medicine (Croizier 1976; Taylor 2005, p. 64 ff). A revived and consolidated CM was needed for China's state run medical education and health delivery systems, and then from the 1980's, for its training courses for foreigners and for the CM foreign language publications industry (Scorzon 2002). The latter part of the twentieth century thus gave rise to one of the main instruments for implementing modernisation and integration, a centralised training curriculum with standardised teaching materials

(Hsu 1999; Taylor 2005). Areas of crossover between CM and BM were sought and textbooks formulating basic CM theory were produced for the first time.

In the 1970s and 80s, China's standardised teaching materials also became the precursors of the first English-language textbooks for Western students. For example, Manfred Porkert's *The Theoretical Foundations of Chinese Medicine* (1974) was based on the Nanjing College's *Outline of Traditional Chinese Medicine* (1958) and *Compendium of Traditional Chinese Medicine* (1959); the *Acupuncture: A Comprehensive Text* (Shanghai College of TCM 1981) was translated by John O'Connor and Dan Bensky from Shanghai's *Textbook of Acu-Moxi-Therapy* (1962, 1974); Nathan Sivin's *Traditional Medicine in Contemporary China* (1987) is a translation with extensive commentary on Beijing's *The Revised Outline of Traditional Chinese Medicine* (1972), which had been specifically produced for China's 'Western doctors studying Chinese medicine' project (Agren 1975a; Taylor 2005). During the 1970's and 1980's, these were most of the very few CM texts that were available in English.

In Australia, CM began to attract mainstream interest from the 1970's. In the mid-eighteen hundreds Chinese gold miners had begun to settle in Australia, and by 1887 'there were fifty Chinese herbal medicine practitioners on the Victorian goldfields … [B]y 1911 Chinese herbal remedies were available with English labels and directions' (Bensoussan & Myers 1996, p. 22; O'Neill 1994). But it was not until after the beginnings of acupuncture training in Sydney in 1969 and the opening of Australia's diplomatic relations with China the early 1970's that CM began to attract the attention of the Australian public.

Thus during the 1970's and early 80's, the few CM texts available in English (as well as the three listed above, available texts included Beijing College of TCM, Shanghai College of TCM & Nanjing College of TCM 1980; and Kaptchuk 1983) introduced Australians and other Westerners to the revised and modernised incarnation of CM known outside China as 'Traditional Chinese Medicine' (TCM). Today, TCM is the Chinese medical orthodoxy. While Westerners tend to think of 'TCM' as traditional or classical CM, Kim Taylor (2004, p. 102) nails its inception to 1958, and assesses the nature and origin of TCM as a modern 'distillation of ancient concepts according to the dictates of the twentieth century' (2005, p. 1).

TCM in the West

TCM textbooks of Chinese and Western origin today present structured frameworks for the learning and application of traditional medical theories that have been revised to suit the biomedical climate and contemporary reader. Recent revisions include the modernisation of Chinese medical language and technical terms because modern medical terms help to explain or maintain clinical relevance. However, these texts usually do not locate or contextualise traditional concepts or their revisions within the classical, biomedical or research literature, and translations, technical language and terminology to date have been largely interpretive, idiosyncratic and difficult to cross-reference (compare for example, Beinfield & Korngold 1991; Cheng 1999; Liu & Liu 1998; Luo 1987; Maciocia 1989; Mann 1962; Ni 1995; Rogers 1997; Veith 1972; Wu 1993 (originally *c*. 100 BCE); Wu & Wu 2005 (originally *c*. 100 BCE)).

The moves to standardise CM terminology in recent years have at last alerted Westerners to the breadth and complexity of its technical language, and highlight the generally simplified presentation of the discipline in the Western generated literature. Consequently, Chinese medical terminology and translation have become a hot issue focussing the arguments for standardisation, modernisation, scientisation, preservation and accuracy. Chinese speakers in the West complain that the Chinese are dismissive of Westerners' ability to understand premodern Chinese concepts, while influential proponents of biomedicalising CM, such as Xie Zhufan argue that CM will be acculturated in the West by means of biomedical infrastructures (Ergil & Ergil 2008; Wiseman & Feng 1998; Xie 2003). Meanwhile, medical philosophers, historians and anthropologists are publishing textual translations and analyses that are beginning to provide more contextual and clinical information, and studies of the content, meanings and interpretations of CM literature (for example, Chace & Zhang 1997; Furth 1999; Huangfu 1994; Liu 2001; Lo & Cullen 2005; Mitchell, Feng & Wiseman 1999; Scheid 2002a; Sivin 1995d; Sun 2009 (originally 652); Unschuld 2003).

The transmission of CM historically, and to countries outside China, has largely been possible due to the textual legacy that has recorded its conceptual and therapeutic developments. Alongside its literate tradition ran China's familial and master-apprentice style routes of transmission that the new, centralised, state run, medical training programs have not yet quite eradicated. Even today, the

transmission and practices of CM still include oral transmission, apprenticeship systems, and have always been much more diverse than its textual legacy portrays (Hsu 1999). Nonetheless, the continuity of CM, its concepts of the body and life, of medical theory and therapeutics, its current educational institutions, and this research project rely almost entirely on CM's textual resources and traditions.

The transmission of CM into the contemporary world and Western languages presents a significant challenge for its preservation as a distinct medical discipline and system of practice. This is because BM dominates our public institutions — educational, medical, research, political and professional — and the public mind. Even though the choice to experience Chinese acupuncture or herbalism is not supported by the government's public healthcare system in Australia, it is one of many health care options available to us courtesy of ideological pluralism and an open market economy. Pluralism, market economies, popular culture and accidents of political history may not be sufficient however to ensure the long-term availability of traditional CM in Australia. Today, the contrast between BM and CM places CM either as inferior, or as a resource that BM can selectively incorporate. Both these options raise issues that will be the focus of this research.

Chapter One:

The Research

At the heart of this project lies the broad question of how the body is perceived in CM, and the research will attempt to capture that on several levels, in particular, the philosophical, physiological and clinical issues that are unique to premodern Chinese medical theory–practice. The thesis will focus on China's early perspectives of the medical body to investigate how English speaking CM professionals can approach and engage with a more traditional field of study and practice. Assuming this is possible, the thesis will also have to address the reasons why we should be interested in doing so, and therefore will examine the relevance of traditional perspectives for healthcare practices today.

The significance of the study rests with its contribution to the growing body of CM literature available in English, its consolidation of related materials, and its synthetic approach that applies a practice focus to academic, bio-scientific and clinical research. The research methods will reflect and reconnect CM's historical intersection between philosophy / theory and therapeutic methods. To re-instate CM's theory–practice nexus the analysis will examine materials from CM's own literature (classical, premodern, contemporary and biomedical interpretations and clinical discussions), and borrow from the disciplines adjacent to the field. Relevant non-medical materials mainly comprise historical, philological, ethnographic and anthropological studies, and the thesis will identify their contributions to our understanding of the Chinese medical body.

The thesis' synthetic approach will connect the interests of academic scholarship, biomedical research and Chinese medical practice. Bio-scientific and socio-historical research publications rarely assist CM clinicians with issues of medical practice. However the analysis of multidisciplinary sources can add context and depth of field to traditional perspectives, and CM's traditional philosophy–practice nexus will be shown to support the internal intelligibility of its premodern conceptual frameworks, and their relevance for contemporary clinical decision-making.

The thesis will examine ‘the living body’ in CM, starting in Chapter Two with early Chinese assumptions about reality and being (ontology), their methods of investigating and knowing (epistemology), and the ramifications for Chinese medical theorising. Chapter Two will examine the assumptions and methods that underpin the ‘tradition’, its perspectives of the medical body, and the terms and concepts that feature in CM’s premodern discourses. Chapters Three to Seven select topics with particular conceptual difficulties for contemporary CM practitioners to contribute to the restoration of traditional concepts for the English speaking CM profession. Here in Chapter One it will be necessary first of all to identify the issues regarding contemporary representations of the Chinese medical body, and to set out the purpose and methods of the research.

Science, integration, and the medical body

The ways in which CM and BM each view the body distil the differences that remain strangely problematic for the smooth integration of biomedical and Chinese medical practices. This section will begin with an overview of their representations as they pertain to our assumptions about the body. Relevant themes touch on notions of efficacy, areas of the philosophy of science and medicine, terminology, standardisation, research methodology and clinical practice, as well as translation and cross-cultural transmission issues.

The general acceptance of the scientific approach today means that its methods and the knowledge produced are thought to be reliable and widely applicable (Foucault 1972) . Consequently, scientific medicine is not open to non-scientific views, and ‘to call a medical system “non-scientific” is virtually to damn it as arbitrary, irrational, unsystematic, misguided, ineffective and probably a danger to health’ (Cunningham & Andrews 1997, p. 7). This perception seems to have developed during the nineteenth century with the beginnings of the new sciences, including scientific medicine.

What was ‘new’ about the new sciences of the nineteenth century, were the impersonal, systematic and rational experimental models of scientific positivism and determinism that promised authoritative and objective findings. Influential thinkers such as Karl Marx (1818–1883) and Emile Durkheim (1858–1917) argued

that science set people free from superstition and religion and removed the culturally contingent elements from ideas (Kendall & Wickham 1999). So persuasive were the new scientific methods that, despite the acknowledged sociopolitical origins of science and scientists, the knowledge they produced seemed untainted because it was determined by empirical evidence from the material / physical world.

The new scientific methods of the nineteenth century were premised on 'scientific essentialism' — a belief that direct observation can avoid the unreliable and interpretive problems of representation. Philosophical developments of the last century however refute scientific essentialism: postmodernism has shown that everything we know is known through representation; and Thomas Kuhn (1922–1996) has demonstrated that there is no clear distinction between observation and theory. Kuhn found that, far from being unassailable, the sciences are historically specific, they do not have tight deductive structures or a methodological unity, and their concepts are not especially precise (Kendall & Wickham 1999).

Whilst anyone conversant with twentieth century philosophies of science might question scientific objectivity and its assessment of medical practices, the precision of biomedical technologies maintains a strong hold on the public mind. Even though we know scientific observations are imbued with theoretical interpretations, biomedical research methods still adhere to the positivist view that representation can be vanquished, and 'reality' discovered by scientific methods. On the whole, our current preference for biomedical concepts and methods slides quietly by these epistemic and methodological issues, though they raise a few problems for CM.

James Waldram (2000) notes the vulnerability of traditional medical systems to BM's political hegemony and its colonizing influence. He shows how the biomedicine-and-state 'body politic' defines efficacy and how to measure it. The logic is teleological: because biomedical practice 'is lawful, and therefore real, medical practice largely becomes practice provable by biomedicine to be effective in ways that biomedicine understands' (p. 618). According to Waldram, medical anthropology's lack of consensus around how best to understand efficacy has meant that medical anthropologists tend to accept BM's hegemony and 'often privilege the external, objective perspective' (p. 613) of its research. The global dominance and momentum of scientific medicine therefore means that the

integration of CM and BM is in fact a one-sided process that biomedicalises healthcare (Kaptchuk & Miller 2005a).

As well as biomedicalising CM, twentieth century revisions include a number of projects aimed at standardising theoretical principles and therapeutic content, for example its terminologies, their translation, acupoint locations, illness (病 *bing*) and pattern (证 *zheng*) analysis. On the positive side, standardising and biomedicalising CM content and categories create disease classification structures with clear lines of separation. Standardised terminologies and diagnostic criteria give the discipline a firm foundation for learning, and improve the inter-examiner reliability of CM practice and research.

Unfortunately, and particularly when guided by a biomedical agenda, standardisation also erases thousands of years of diversity and removes some of the tradition's inbuilt flexibility. As Judith Farquhar puts it,

> Chinese medicine has lately been engaged in fixing its elements in increasingly immutable signifying relations. … This arrangement would then be a suitable candidate to be epistemologically investigated along western … lines. But it would not much resemble the more processual, contingent, and pragmatic approaches to illness of an earlier Chinese medicine (1987, p. 1018).

On the standardisation of terminology for example, the uncritical translation of traditional-to-biomedical terminologies are fraught with Eurocentric biases and lead to a false sense that traditional CM is essentially similar to BM. The likely influence of Eurocentrism in Western generated materials is too recent to ignore in this context.

However, it would be erroneous to suppose that the Chinese were passively allowing BM to colonize a robust indigenous discipline rather than actively and selectively taking it up for their own purposes (see the discussion in Andrews 1996a). In fact last century's push to update old ideas is consistent with CM's textual history, which reveals periodic revisions, debates and reassessments designed to collect, order and standardise medical knowledge and methods and to eradicate dogma and superstition (Hanson 2003; Ping 1999). Even the *Huangdi Neijing*'s (*c*. 100 BCE) marked shift away from magico–religious medicine at the

beginning of the Imperial era was a major conceptual leap for Han dynasty scholars and physicians.

Broadly speaking, contemporary research into CM follows one of two main directions — bio-scientific and socio-historical — and rarely does either direction assist clinicians with issues of medical practice. The model for medical history research separated scholarship from practice in the nineteenth century, and historical, anthropological, ethnographic and textual researchers of China's medical traditions normally avoid discussing the implications of medical theorising for therapeutic interventions. There are some notable exceptions to this. Anthropologist and ethnographer Judith Farquhar (1994) found the separation of theory from clinical practice inadequate and unwieldy for her fieldwork, and recently practitioner–scholars such as Vivienne Lo and Volker Scheid have been developing new approaches to understanding CM (Hinrichs 1998; Lo 2001, 2005, 2007; Scheid 2001, 2002b, 2007).

The majority of non-scientific research into CM, while maintaining its distance from medical practice issues, does offer other insights. Historians of medicine and culture have demonstrated that the body is a social–political construct, rather than an objective, quantifiable entity (Foucault 2003; Kuriyama 1999; Lloyd & Sivin 2002; Sivin 1995b). Thus historians of CM often contest contemporary interpretations of early Chinese texts and concepts. In investigating the development of CM's conceptual frameworks, CM historians reveal sophisticated discourses built around a distinctive approach to knowing the world (Harper 1998, 1999; Sivin 1987, 1995d; Unschuld 1985, 1987).

Comparative studies such as Nathan Sivin's collaboration with Geoffrey Lloyd (2002) contrast ancient Greek and Chinese cosmologies, science and medicine. Their investigation of social, institutional and intellectual frameworks challenges our assumptions regarding the universal medical reality of the body. Similarly, Shigehisa Kuriyama (1999) takes the reader beyond medical theory to question our usual perceptions of the body, and even our perceptions of reality and being. His analysis of the language of early Greek and Chinese medicines maps out the beliefs, conceptions, practices and the medical gaze that for example ignores the channels transporting 气 *qi* (in the case of ancient Greek physicians), or muscle structures (the ancient Chinese).

Historians like Sivin, Kuriyama, Unschuld and Sabine Wilms (2009) do not attempt to modernise ancient ideas, and take pains to correct anachronistic interpretations and our tendency to scientise. Their analyses show how CM's traditional theories and practices have evolved from its ancient and continuous textual tradition. And they succeed in communicating inaccessible texts and difficult concepts to a contemporary audience while preserving their integrity. Historical and philological research has shown how CM's empirical methods and reasoning enabled growth and adaptive flexibility over time, and today, it may be that CM's proven ability to absorb ideas and influences will benefit its therapeutic competence in the contemporary world. That is, if Chinese medical traditions are not first abandoned by the global hegemony of BM.

Historically we know that Chinese medical methods have been trialled and consensus reached by repeatable results over two thousand years, but reports of repeatability and clinical success over time are no longer regarded as evidence. Today, a set of research protocols called 'evidence based medicine' (EBM) overrides all other criteria for therapeutic safety and efficacy and has become the determiner of best practice (Li et al. 2008; MacPherson 2005; Zhu, Carlton & Bensoussan 2009). Bio-scientific and evidence based research methods promise objective, factual information, and they investigate complex phenomena in a systematic way by isolating and testing their more simple parts or factors.

The methodological dissonance that occurs with the bio-scientific investigation of CM has led to several problems. Chinese medical methods are synthetic and subjective whereas biomedical research methods are reductive and objective. The bio-scientific investigation of CM often consists of unpacking a clinical event (which is itself a collection of complex processes) to systematically test an isolated factor — for example, measuring the effects on a biomedical disease of a single acupoint or a single active constituent derived from one of CM's medicinal substances. CM's traditional practice methods and therapies are largely incompatible with this kind of research (Bagshaw & Bellomo 2008; Bian & Moher 2008; Greenwood 2007).

The gold standard of EBM is the double-blind placebo controlled clinical trial (Hammerschlag 1998; Kaptchuk 2002; MacPherson 2005; Waldram 2000). To test a clinical intervention and to control for the placebo effect, participants and

clinicians are ‘blinded’ — they do not know whether they are receiving or giving the intervention or an inactive ‘non-treatment’ protocol. Blinding participants to an acupuncture intervention is not easy, and blinding the acupuncturist is not possible. The ‘blinding’ of participants and clinicians is derived from pharmacological research models and is a more realistic method for Chinese herbal medicines.

To reduce variables and ensure a measurable quality and dose, pharmacological methods isolate a single ‘active’ constituent from a naturally occurring substance (Chen & Chen 2004; Fong 2006; Lei 1999). Chinese herbal medicine preparations though are almost never based on a single herb: typically, they are preparations of a formula containing a number of medicinal substances in specific ratios. Methods that better reflect Chinese medical practice would have to encompass the complexities of prescription qualities and dynamics, and their interactions with human physiology (Bensky & Barolet 1990; Bian & Moher 2008; Brand 2010; Sionneau 1997).

The methodological constraints required by scientific research ignore CM’s diagnostic reasoning and basic principles of practice, alter traditional methods, standardise treatment protocols (to reduce variables for example), and remove CM’s flexibility and responsiveness to clinical changes and variations (Bian & Moher 2008; Fan 2003; Greenwood 2007; Kaptchuk 2002). Objectivity, for example, is not a requirement of traditional CM diagnostic methods. In fact, ordinary and subjective experiences — the patient’s bodily experiences and sensory perceptions, and the clinician’s observations and interpretations — were thought to be sufficient to understand the patho-mechanisms of illness and discern patterns of dysfunction.

Researcher bias, a common problem in all research fields, is also an issue for CM research. Research itself is increasingly motivated by economic considerations: the economic gains derived from the development of herbal products diverts research resources, and when considering the results of a research trial one must keep in mind the possible influence of its funding sources. Most disturbing for CM research is that researchers who are untrained or inadequately trained in CM are investigating and publishing their research in prestigious journals such as the *Lancet*, *American Journal of Kidney Diseases*, *Rheumatology*, *Annals of Internal Medicine*, *British Medical Journal* and others (see for example Depierreux et al. 1994; Linde et al. 2006; Scharf et al. 2006; Vanherweghem, Depierreux &

Tielemans 1993). The relevance of many of these publications and their research outcomes for clinical practice is often questionable, tenuous, or absent (for more on these issues see Bagshaw & Bellomo 2008; Birch 2004a, 2004b, 2007; Birch et al. 2004; Freedman 2010; Kaptchuk 2003; Scheid 2002c; White et al. 2002).

Advocates of scientisation argue that it must be possible to utilise and test CM from within a biomedical framework, and if scientisation means removing CM's traditional principles and concepts, then surely it could be made more efficient and more effective in the process. For the contemporary healthcare industry, this is a persuasive option for all the reasons stated above. These include CM's conservative historical legacy, its complex and disparate currents, its neglect of physical structures and mechanisms, its incompatible assumptions and methodological dissonance with BM.

However the thesis will argue that, for all the same reasons, the removal of CM's traditional principles and concepts is an uninformed and untried opinion. Traditional CM frameworks and therapies have been tested over a long period of time, and our local inexperience and misunderstanding of them is a poor excuse for the perceived expediency of discarding them. Perhaps it will be possible in the long-term to improve researcher qualifications, and to develop or adapt more appropriate research methods such as pragmatic studies, hybrid models, and whole systems research (Cardini et al. 2006; MacPherson 2004). In the meantime, building access to the tradition's primary sources can reveal internal principles and intelligibility that support and enable CM's methods of practice.

The depth of the CM tradition in China of course includes a kind of maturity that is lacking in Australia with only a few decades of marginalised practice, a very small senior practitioner population, difficult access to texts, and a relatively slight hold on the public mind. As a CM educator and clinician in Australia, the issues of maturity, access and transmission are personal, professional and pedagogic. As an educator I attempt to convey CM's 'traditions' and conceptual models accurately using the English-language materials available; and as a clinician I utilise CM's therapeutic methods in a contemporary Western setting. Big picture issues fan out from these: educational issues of transmission and content; professional concerns, such as reputation, efficacy and public confidence; and scientific and evidence based research questions and methods, and their relevance for clinical practice.

From its small beginnings in Australia in the 1970's the training of CM clinicians has moved into the university system (1992) and the profession will soon achieve national registration (in 2012). University settings provide more resources and opportunities for the profession but also align it with health and medical science programs and their research agendas. In China, CM has an established academic profile, a large base of reference and research, and the support of government policy and instruments. In Australia, it does not. In the Australian context CM is one small fish in a very big tertiary education and health services pond.

Australians who wish to practice traditional CM strive to gain an understanding of the discipline that corresponds to its intrinsic meanings and established protocols. But the changes and issues described above have compromised CM's traditional methods and caused misunderstandings for today's students and clinicians. Moreover, all these factors and forces are changing CM, locally and worldwide. Questions concerning the nature and relevance of the Chinese medical tradition, the modernising of CM, and the gulf that has developed between CM's basic theory and its clinical applications are some of the concerns facing the contemporary Chinese medical profession.

These developments affect the future of the CM tradition generally, and its transmission in Australia and the West more specifically. Clearly, it is possible to better inform the English speaking profession, and by all accounts the correct and deep understanding of the Chinese medical body is a key aspect of every stage of the clinical encounter and linked to the efficacy of its therapeutic interventions (Farquhar 1994; Zhou & Zhang 2005). On that basis alone traditional concepts and practices are worth investigating on their own terms, that is, without using BM as the scientific standard and interpretive filter.

Research purpose and method

The main goal of the project is to contribute to the accessibility of traditional conceptions of CM in English and to investigate their relevance for contemporary clinical healthcare. The examination of the conceptual frameworks that underpin traditional CM therefore will focus primarily on the medical body as the site of medical theorising and practice. A number of specific objectives will support the

main goal. The research will identify classical, premodern and contemporary CM textual information, as well as non-CM research and scholarship to contextualise traditional concepts and their revisions. This process will provide the basis for clarifying traditional conceptions, and re-imagining the traditional Chinese medical body, both of which will be examined for therapeutic intelligibility and relevance.

The thesis' multidisciplinary and synthetic approach borrows from disciplines that are adjacent to CM itself, such as medical history, philosophy and anthropology. Using methods of comparison and discourse analysis, the research will locate and explore the links and implications for medical theory and practice that are not explicit in the non-medical disciplines, and it will include examples of scientific research that offer a biomedical account or insight into traditional medical functions and entities.

The thesis' synthetic approach is a deliberate strategy to reflect, restore and demonstrate the clinical relevance of CM's epistemic methods as accurately as possible. Although the synthetic approach ignores the West's historical separation of academic scholarship and professional practice, the thesis' synthesis of scholarship and practice acknowledges the traditional connectedness between CM's theoretical constructs and its therapeutic interventions — its philosophy–practice nexus. Ultimately, medical knowledge is grounded in practice, and the literature of China's medical tradition serves to reproduce and transmit this knowledge.

In a work of this kind comparison is unavoidable and I am aware of the bias and partiality problems and the simplistic oppositions that can arise when comparing Chinese and biomedical perspectives. When the discussion draws comparisons between them, it does so to progress the investigation and to de-clutter our interpretations of Chinese concepts. The value in this approach is that the contrasts between CM and BM (and their occasional similarities) can serve to provoke and transform our accepted notions of the medical body (Geaney 2002, p. 5; Hinrichs 1998, p. 296; Jullien 1995, p. 20; Kasulis 1993, p. xiii).

An investigative method that examines textual discourses and entails the careful description of appearances and representations is appropriate here and corresponds, broadly speaking, to CM's premodern investigative methods (see Chapter Two below). Postmodernism offers a suitable starting place

methodologically insofar as it rejects ‘the customary historical stories of victorious modernisation’ and their moral subtext about the inherent superiority of contemporary sciences (Cunningham & Andrews 1997, p. 13; Foucault 1972). Because postmodern discourse analysis rejects the notion of ‘truth’ in any absolute or particular sense, it offers a useful approach for questioning our assumptions and interpretations, and for understanding the context and conditions influencing the current versions of our disciplinary knowledges.

While the physical body itself is a material, non-discursive entity, our representations of it ‘are always discursive’ (Kendall & Wickham 1999, p. 40). Scholarship explaining historical and medical perspectives of the body attests to this (Foucault 2003). By their very nature, written texts recontextualise knowledge and practice and in doing so they add evaluative and legitimating semantic layers, and knowledge is subtly altered (van Leeuwen 2008). Furthermore, discourses are known to reflect and perpetuate hegemonic social structures and values, and like all discourses, CM’s written texts are both socially shaped and socially shaping.

The main contribution to the analysis of textual discourses for this project is to deconstruct and reveal influences that may not be obvious, or on the other hand so pervasive as not to register as noteworthy, for example, accepted understandings or belief systems. Discourse analysis is not merely observational and descriptive. It can help to correct biases and inform debate, and possibly lead to changes in direction, practices and policies. Its success therefore can be measured by its relevance and contribution to change. The thesis will examine CM’s traditional concepts, their classical representations, their premodern developments and diversity, and their transmission off-shore and into the contemporary world. The value of discourse analysis for this project is its focus on language, meaning and historical change, and its application to written texts as attempts to negotiate unstable and changing sociocultural circumstances (Hodge 1995; Lupton 1992).

The investigation of Chinese medical texts, concepts and practices below will incorporate their historical, cultural and philosophical influences to contest the simplified and biomedicalised version of CM generally available in English speaking countries today. Familiarity with the historical and cultural contexts of premodern medical discourses will at least allow English speakers without Chinese language capacity to approach CM’s traditional perspectives (Hanson & Pham 2006, p. 351). The non-TCM literature does challenge us to investigate Chinese

medical language and history (for example) as integral to our professional discernment and evolution.

The Chinese medical literature in English, when it includes fields of research outside the TCM orthodoxy, highlights areas of theoretical difficulty and can provide insight into their resolution or displacement. The thesis' main contribution towards accessibility for the contemporary English speaking profession will be the discussions of areas of theoretical difficulty, and the investigation of their meaning and place in contemporary clinical practice. There are so many physiological and clinical issues that are unique to CM that the thesis must selectively deal with just a few topics.

The notions of 'a CM tradition' and its 'traditional theories' are so pervasive in today's English-language literature on CM that, before moving into the medical topics, Chapter Two will begin with the question of what constitutes 'the tradition'. The chapter will also investigate China's early medical onto–epistemics, its early perspectives on 'being' and 'reality' and their approach to 'knowing'. These will help contextualise the premodern discourses and the clinical aspects of the discussion in the chapters following. CM's epistemological assumptions and ontological interpretations were developed well before the *Huangdi Neijing* was compiled in *c.*100 BCE. They underpin the content of its treatises and all areas of the textual tradition since.

The perspectives and methods examined in Chapter Two inform the surviving archive of China's pre-scientific medicine and reveal its unique perspective of the body. Features of this perspective emphasise functional inter-relatedness, they contest our reliance on the principle of anatomical structures defining bodily functions, and guide the investigation of the topics in the following chapters. The question 'What happened to Chinese anatomy?' (in Chapter Two) may finally be dismissed as unhelpful for understanding the Chinese medical body, but in the meantime will serve as a starting point to approach the perspective and focus of its medical investigations.

By examining the Chinese medical body in Chapters Three to Seven, the thesis will explore the traditional Chinese 'medical gaze' and its preference for functional and processual information. The twentieth century architects of TCM have done a superb job of consolidating and systematising Chinese medical theory–practice

and yet some areas of the discipline still defy the objective gaze of scientific materialism. A few of these are selected for particular attention in Chapters Four to Seven, and these chapters will demonstrate some of the effects of modernisation. By re-naming Chinese medical entities according to bio-scientific criteria written texts tend to adopt and promote bio-scientific assumptions about them, and then to apply inappropriate research and therapeutic parameters to them. In fact, CM's investigations of bodily systems and substances bear little resemblance to bio-scientific anatomical data and methods.

Chapter Four's examination of the Chinese medical 'liver' takes up the methods of knowing and investigation explained in Chapter Two. Biomedical liver physiology for example, is complex and well understood, and the TCM perspective is well documented too. Using the liver *yin* visceral system and its 'coursing and discharge' functions to examine problems of translation, the chapter will show how terminological issues produce gaps in the contemporary clinician's understanding and their therapeutic options. Chapter Four will also create links with the topics and analyses in the chapters following.

The morphology and functions of the triple burner (三焦 *sanjiao*) in Chapter Five introduce a more difficult topic. The triple burner is a Chinese medical organ system that unlike the liver has no biomedical or physical counterpart. This has led to dispute and argument historically, and more recently to speculation that assigns misleading physicalist interpretations and structures. The 'structure-determining-function' premise of Western investigations faces an anomaly in this case where 'organ' functions relate not to material structures, but to spaces, cavities and textures.

Chapters Six and Seven take up medical topics and entities with even less structural physicality — emotions, desires, sensory perceptions and conscious awareness. Chapter Six examines some of the medical entities associated with physiological fire that receive little attention in TCM texts, such as the triple burner, pericardium (心包 *xinbao*), lifegate (命门 *mingmen*) and minister fire (相火 *xianghuo*). The problem for minister fire for example is that like the *sanjiao*, it is formless and immaterial, but unlike the liver and *sanjiao* systems minister fire is not an organ system. Nor is it a structure, tissue, space or substance. Yet, its physiological activities are essential for life.

Chapter Seven concludes with an examination of the Chinese medical body's spirits, senses, awareness and mentality. The traditional Chinese perspective on human mentality fundamentally challenges the Western mind–body split, and Chapter Seven examines what this means for Chinese medical practice. Here, and in the previous chapters, the inclusion of clinical examples helps draw together the chapter topics and concepts, and their therapeutic applications.

I have used simplified Chinese characters and the pinyin system of transliteration for Chinese terms where needed. Pinyin is the PRC's official system of transcribing Chinese characters. The older Wade–Giles system is still common in English-language texts, and in the interests of consistency I will substitute pinyin in square brackets when quoting them. Simple characters have only been officially in use in mainland China since 1964; complex characters are still in use in Hong Kong, Macau and Taiwan, and the World Health Organisation's standardised CM terminology (WHO 2007) has maintained them for that reason. The thesis' Chinese–English Glossary (Appendix A) contains simple characters and the pinyin, and its translation of Chinese terms follows Nigel Wiseman and Feng Ye's *Practical Dictionary of Chinese Medicine* (1998), except where otherwise noted. Appendix B lists the abbreviations used in the thesis, and Appendix C tabulates China's dynastic and republic periods with the Chinese medical texts, authors and physicians mentioned in the thesis.

It is not possible here to resolve all the issues confronting CM, and the project's examination of the Chinese medical body of course is far from complete. However the research will show how multidisciplinary sources can deepen our reading of TCM texts, and the examination of them in the following chapters reveals the coherence between CM's conceptual models, the clinical process and the logic guiding therapeutic decisions. The selected medical entities will provide more depth to the analysis of the tradition's onto-epistemics (discussed in Chapter Two). They will also highlight issues of terminology and translation (Chapters Three to Five), morphology and transformation (Chapters Five and Six), substances and functions, material and immaterial (Chapters Four to Seven). The sum of all these topics, entities, concepts and features begins to reveal and re-imagine the traditional Chinese medical body.

To whatever extent the research achieves or conveys a deeper understanding of the Chinese medical body and the tradition's unique philosophy–practice nexus, Australian (English speaking) educational, practice and professional outcomes will benefit. Greater precision with terminology and theoretical models will assist communication and exchange between CM professionals within Australia and internationally. CM researchers will be better able to take Chinese medical conceptions into account, and to construct appropriate methodologies and engage in scientific research from a position of scholarly rigor and clinical relevance. Too often a technique, substance or bodily response is tested by removing it from the clinical setting, meaning the unique clinical situation including the frameworks, rationale and relationships that contribute to the particular clinical instance or encounter. The thesis will show that the CM tradition is all about these features.

Chapter Two:

The Tradition

Since Traditional Chinese Medicine (post-1950s Chinese medicine) accepts its backwards-looking discipline with certain conditions, and Westerners are drawn to the 'alternative' methods of healthcare promised by its representations in popular literature, one needs to ask 'what is the Chinese medicine tradition?' To answer this question, Chapter Two will examine the notion of tradition within the field of Chinese medicine (pre- and post-1950's Chinese medicine).

The Chinese medicine (CM) 'tradition' is usually linked to the development of its early conceptual frameworks and medical terms, and because these are often a point of contention for the modernisation of CM, the chapter will discuss some of them in detail. Many historical–philosophical currents that have been influential for Chinese medical practice are not readily accessible via the transmission of Traditional Chinese Medicine (TCM) in English-language texts. Hence, the discussion in this chapter will require some historical and philosophical background to contextualise the evolution of early conceptual frameworks and terms and their meanings for medicine. To examine the relevance of the CM tradition for contemporary practice, Chapter Three will look at how early conceptions transferred to the medical body image, and the chapters following will take up specific issues regarding the body 'contents'.

How medical practitioners perceive the body determines to a large extent their interactions with it in the clinical setting. Though investigating the same human body, the differences in CM's and biomedicine's (BM's) reading of the body arise from the philosophical assumptions that underpin their methods and interpretations. In China, contemporary CM scholars and physicians see their profession as deeply rooted in 'ancient (*gudai* 古代) Chinese people's scientific practice and philosophical thinking' (Zhang 2007b, p. 4). This chapter's examination of China's early historical sociocultural influences will demonstrate their impact on premodern medical conceptions and the beginnings of the CM tradition.

Early Chinese life sciences generally investigated functional, relational and processual patterns and manifestations, and Han dynasty (206 BCE–221 CE) medical scholars applied the same methods of knowing (epistemic) to the body in health and illness. While early Chinese thinkers favoured a functional and relational perspective on being and reality (ontology), the rise of the new sciences in the nineteenth century led to a more concrete, measurable, substance-based perspective in the West. Thus current biomedical investigations favour a 'materialist' view of bodily structures. Philosophical materialism assumes that all phenomena are the result of physical / material substances and their interactions, and so biomedical methods rely on quantitative data to identify disease categories and develop therapeutic interventions.

The work of Michel Foucault (1926–1984) established some relevant facts about the West's scientific perspective on the body (Foucault 2003, first published in 1963). The scientific perspective first appeared in Europe with the 'Age of Enlightenment' in the eighteenth century, when rationality dispelled superstition and dogma, science gathered observable, measurable evidence, and medical science employed objective methods to investigate the physical body. Just like early Chinese representations of the medical body, modern European representations were constructed according to their favoured notions of reality and methods of knowing (and see Dissanayake 1993; Hsu 2005; Kendall & Wickham 1999; Ots 1991; Scheper-Hughes & Lock 1987).

In other words, as the object of medical research the body was also the effect or outcome of the research perspective and methods. Foucault's analyses show how disciplines such as medicine create an apparatus that codes their activities and the individuals carrying them out, and connects both to their sociopolitical institutions. Today, bio-scientific methods and evidence act as the organising structures for medical knowledge and as a mechanism to exclude some types of knowledge (Hirschauer 1991, p. 309; Holmes et al. 2006, p. 184).

Authors in non-scientific disciplines today recognise different bodies corresponding to different epistemologies. Medical anthropologists and social scientists Nancy Scheper-Hughes and Margaret M. Lock (1987) for example discern three: the individual body and the lived self (phenomenology); the social body (structuralism and symbolism); and the body politic (post-structuralism). According to Sabine

Wilms (2009), Scheper-Hughes and Lock's analysis is just the beginning for understanding the body.

When reading outside the TCM orthodoxy, it is easy to see the impact of early history and culture on China's methods of investigating the world, and how these early onto-epistemics guided conceptions of the body in the early medical classics. The Chinese medical body is not an objectively quantifiable body, and nor does CM have one single explanatory model for the body. In practice, CM deals with 'a complex and ever-changing combination of ideas, subjective experiences, and realities' (Wilms 2009, p. 42).

This chapter will examine the medical tradition starting in the next section with the notion of 'tradition'. CM's earliest medical classics were compiled during the Han dynasty and the discussion identifies some of the key features that characterised their early perspectives and methods. The second section examines traditional medical terms and concepts in the light of the twentieth century transmission of CM into the modern era and to English speaking countries. Both sections provide some historical, cultural and textual background to contextualise CM's developments from the Han to the present day.

The roots of the tree

The history of the CM tradition is premodern and pre-technological and spans the two thousand years that coincided with China's Imperial era. The twentieth century version of CM is known in the West as 'TCM' (Traditional Chinese Medicine) because it includes conceptual models from the *Yellow Emperor's Inner Canon* (黄帝内经 *Huangdi Neijing*, *c.* 100 BCE, hereafter, '*HDNJ*') and from many important texts and currents since. The main distinction to make between TCM and the CM tradition is that TCM is a twentieth century distillation and consensus of CM's ancient concepts and premodern discourses; whereas the tradition discussed here is the large and diverse body of Chinese medical theory–practice starting with the *HDNJ*.

In the context of CM and its related disciplines in the West, the notion of 'traditional' has 'emerged "as a counterpoint to modernity" [that is] laden with Eurocentric

cargo' (Barnes 2005a, p. 241). The opposition of dogmatic tradition and progressive modernity is one factor that tends to cast an unfavourable light on CM in contemporary Australia. Theo van Leeuwen (2008, p. 108) shows that the kind of authority that is grounded in traditional customs, beliefs, habits and practices is thought to produce a static, monolithic edifice.

However, the CM tradition is demonstrably innovative, dynamic, versatile and open to change, and Volker Scheid (2002a, 2002c, 2006, 2007) argues that we should reconceptualise our notion of tradition. The history of CM in fact describes an evolving, living tradition comprised of many diverse currents, and 'capable of assimilating even the most modern technologies and scientific theories' (2006, p. 64). Scheid's research reveals that, far from dead and anachronistic, CM has always been immensely diverse, heterogeneous, adaptive and evolving. He depicts CM as a thriving and flexible medical system in a continual state of becoming, one that has formed an organic continuity over time (Ernst & Lo 2005).

If the CM tradition is not a single or fixed tradition, then what is the nature of its organic continuity? What is the gel that keeps its diverse currents distinctively 'CM'? Historians such as Paul Unschuld (1985, pp. 250-251) point out that the 'illusion' of CM as a 'unified, coherent system' was created in response to threats to abolish it in the early twentieth century. At the same time, he argues that CM consists of a 'durable paradigmatic core' and a more adaptable 'coating of therapeutic methods' (Unschuld 1985, pp. 7-8), a characterisation that relies on the separation of theoretical principles and clinical practice (Zhan 2009). Social scientists have suggested that a tradition is formed in a culture's historical infancy, or at least that the 'personality' of the tradition is established then (Ames 1993a, p. 158). So to identify the CM tradition the discussion will highlight the early historical texts and content that reveal the culture, continuity, perspectives and personality of the CM tradition.

The formation of China's medical tradition was set in train during the Han dynasty (206 BCE–220 CE), and any discussion of the tradition must begin with the Han's medical 'classics'. In the Introduction to his translation of the Confucian *Analects* (*c*. 500 BCE), Simon Leys (1997, pp. xvii-xviii) characterises 'a classic' text as one that is 'open-ended in the sense that it lends itself constantly to new developments, new commentaries, [and] different interpretations' that accrue over time. It can be deformed, and enriched, but it keeps growing and somehow 'retains its core

identity, even if its original shape cannot be fully retrieved anymore'. In the case of CM, the Han dynasty classic texts (经 *jing*) are the first of the living threads that weave through many centuries of practice, theorising, development and evolution that comprise the Chinese medical tradition.

Even before the Han, some authors point to two non-medical ancient classics, the *Book of Changes* (易经 *Yijing c*. 700 BCE) and the *Daodejing* (道德经 *c*. 460 BCE), as the original source texts of CM (Fruehauf 1995, p. 21). Both are ancient classics, not of medicine but of the study of nature and Daoism respectively. It is generally agreed that the *Book of Changes* is the philosophical root of Confucianism, Daoism and medicine in China (Qu & Garvey 2008), and Yun Tieqiao (恽铁樵 1878–1935) points out that the study of nature was the common basis of both the *Book of Changes* and the *HDNJ* (*c*. 100 BCE) (Zhao 1991, p. 33).

The beginning, foundation and character of China's medical tradition however are generally traced to the Han and the medical texts that were compiled during that period. Only three are extant: the *HDNJ* (*c.* 100 BCE), the *Classic of Difficult Issues* (难经 *Nanjing*, *c*. 100 CE) and the *Treatise on Cold Damage and Miscellaneous Disorders* (伤寒杂病论 *Shanghan Zabing Lun*, *c*. 200 CE). Furthermore, the surviving texts documenting the history of CM's therapeutic success repeatedly emphasised the importance of deep study and familiarity with its classical literature.

For the time, the *HDNJ*'s explanations of the body in health and illness are remarkable for their nature-based models and the absence of magico–religious thinking. Explanations of illness may still include the malevolent influences of magic, demons and angry ghosts even today, and not only in China. But the Han dynasty classics document a major conceptual shift away from what we know of ancient China's magico–demonological medicine to expound concepts of health and illness that are linked to natural phenomena such as worms, wind, cold and dampness, and to environmental cycles of change such as the seasonal and diurnal cycles.

The Han medical classics, including the *HDNJ*, contain early Chinese perspectives on philosophy and cosmology. In them the reader finds, not a homogenous system of medicine, but a cluster of conceptual frameworks and practices characterised by numerology, resonance and models of correlative thinking. For the next two

thousand years China's medical literature documented 'an eclectic system which constantly borrowed and adapted grassroots ritual and medical ideas' (Furth 1986, p. 44). CM's textual archive was thoroughly revised during the Song (960–1278), systematised during the Ming (1368–1644), and then reconstructed during the twentieth century. Even so, right up to the end of the Qing dynasty (1644–1912 CE), CM's theoretical developments did not discard the concepts and frameworks contained in the Han medical classics so much as expand and accumulate around them.

The *HDNJ*'s original contents were compiled around 100 BCE and include earlier materials from about 800–700 BCE (Unschuld 1986, p. 4). The earliest extant version of the text is in two parts, each with eighty-one treatises. The first part, the 'Simple Questions' (素问 *Suwen*), discusses the principles of human health and disorder. The second part, the 'Divine Pivot' (灵枢 *Lingshu*), shares many similar ideas but is more concerned with acupuncture therapies. The *Suwen*, and probably the *Lingshu*, were edited by Wang Bing (王冰) in 762 CE. The Song dynasty's (960–1279) version of Wang Bing's text is the earliest surviving version of the *HDNJ* that is available to us today (Kong 2010).

The authors of the *HDNJ* texts are unknown, and the various currents of medical theorising that may be discerned in the corpus were not always in agreement. Most of the treatises were written in the form of a dialogue: as well as Huangdi (黄帝, the so-called 'Yellow Emperor') himself, the texts recorded five interlocutors and Keiji Yamada (1991, p. 48) postulates that each of Huangdi's respondents corresponds to five distinct sub-groups within the Huangdi corpus or 'school'.[2]

The unknown author of the *Classic of Difficult Issues* (难经 *Nanjing*, *c*.100 CE) achieved a more systematic discussion of the medical applications of *yin–yang* and the five phases. Its eighty-one chapters or 'issues' extend the theoretical and practical basis of pulse-taking, the organs and channels and acupuncture treatment, and deal with many aspects of health and illness.

[2] Huangdi was a mythological figure, said to have reigned from 2697–2597 BCE. He was 'euhemerized during the Warring States period as an archaic founder of civilization, [and] was regarded as ancestral patron of medical and various occult arts (including alchemy) by the third century [BCE]' (Harper 1990, p. 21).

The *Treatise on Cold Damage*, written by Zhang Zhongjing (张仲景 150–219 CE) in the latter part of the Eastern Han (25–220CE), is CM's oldest and most respected text on externally contracted illness. Zhang's original text, the *Treatise on Cold Damage and Miscellaneous Diseases,* did not survive the upheavals of the Three Kingdoms period (220–265 CE), and Wang Shuhe (王叔和 210–285) collected and reorganised its surviving fragments into two texts — the *Treatise on Cold Damage* (伤寒论 *Shanghan Lun*) and *Essential Prescriptions of the Golden Cabinet* (金匮要略 *Jingui Yaolue*). Unlike the *Nanjing*, the *Treatise on Cold Damage* and *The Golden Cabinet* are herbal texts, and are far more practice based than the *HDNJ*.

Although the CM tradition is not a monolithic or homogenous medical system, from the *HDNJ* and *Nanjing* in particular came a persistent set of conceptual models, 气 *qi*, 阴阳 *yin-yang* and 五行 *wuxing* (more on these below). All appear in non-medical texts before and since the *HDNJ*, and deeply influenced Chinese medical theorising throughout the Imperial era. Even today's TCM basic textbooks still begin with these three 'theories'. Their original meanings and the concepts that have built up around them over time make them difficult or impossible to translate and, with the exception perhaps of *wuxing*-five phases, they are usually left in the pinyin in English texts.

Diverse as they are, the Han dynasty medical classics collectively espouse a number of [some] enduring features that characterise CM's conceptual models and their medical applications. These same features characterise CM's representations of the body and the seven selected for mention here will recur frequently in the chapters following. The first is the application of systems of correlative thinking. Paul Unschuld (1985), the author of many publications on Chinese medical history, has dealt with China's early correlative systems in detail. He calls these ways of knowing the world 'systematic correspondence', and shows how they are based on the idea that all phenomena can be categorised as manifestations of certain underlying principles. The main ones follow China's early twofold (*yin–yang*) and fivefold (five phase) models.

Systematic correspondences, the correlative frameworks in the *HDNJ* and *Nanjing* texts, were used to categorise phenomena, and to describe the relationships between them including the dynamic relationships of change and transformation. Models like *yin–yang* and the five phases tell us a great deal about early Chinese

cosmology and life sciences. For example, both models were associated with the techniques of calculation that governed China's early astro-calendrical traditions — calendar making, movement of the planets, setting of ritual occasions and auspicious times (Lo 2006). The empirical observation of patterns of correspondence set up the earliest versions of relational categories, and the idea of resonance (應 *ying*) supported the correspondences and the organising principles ('natural laws') connecting macrocosmic and microcosmic phenomena. (For examples of some medical categories and relationships, see Tables 5.1, 5.2, 5.3, 6.2, 6.3, and Diagram 5.1 in Chapters Five and Six.)

Tables 2.1: Numerical models a, b and c

一 **One**:

一 ***yi***	a unifying principle of interrelatedness
道 ***dao***	the Way
太极 ***taiji***	the Great Ultimate
气 ***qi***	vapour, influences

二 **Two**:

yin 阴	***yang*** 阳
cold	heat
night	day
body interior	body surface
organs	channels
blood	*qi*

三 **Three**:

Powers 三才	**Treasures** 三宝	**3 Burners** 三焦
天 heaven	神 spirit	上焦 upper
人 human	气 *qi*	中焦 middle
地 earth	精 essence	下焦 lower

A second key feature of Han dynasty classical medicine is the numerical significances of the above models and other numerical sets (see Tables 2.1 a–e). Some of the main numeric categories for medicine such as 'one' (signifying the 道 *dao*, the 'way', and 气 *qi*), 'two' (for *yin–yang*), 'three' (for the 天地人 *tian di ren*, the Heaven–Earth–Humanity triad), 'five' (*wuxing*, the five phases) and 'six' (六气 *liuqi*, and 六经 *liujing*, the six *qi* and the six channels), will be discussed in detail below (see p. 45 ff). The models served to categorise macrocosmic (heaven–earth) and microcosmic (human) phenomena into meaningful groups. Phenomena so categorised were related by similar qualities — the 應 *ying*-resonance idea. Their numerical significances linked these

Tables 2.1: Numerical models d and e

五 **Five**:

phases 五行	***yin* organs** 五脏	**colours** 五色
wood	liver	green
fire	heart	red
earth	spleen	yellow
metal	lungs	white
water	kidneys	black

六 **Six**:

channels 六经	***qi*** 六气
greater *yang*	wind
lesser *yang*	dryness
yang brightness	heat
greater *yin*	dampness
lesser *yin*	fire
reverting *yin*	cold

conceptual models to broader philosophical themes, and supported the correlative models (*yin–yang* and five phases) that represented the relationships between phenomena and their cycles of change and transformation.

The third feature of the early classics is the variety of schools or currents of theory–practice and, despite sometimes conflicting perspectives, the tendency to accept the value of each of them. The *yin–yang* and five phase 'currents', for example, arose from competing perspectives of reality and were originally incompatible models. Early Chinese thinking tended to build upon earlier achievements rather than discard them in favour of new ideas. Unschuld (1986, p. 7, 1992, p. 58) calls this 'patterned knowledge': rather than replacing the old with the new, Chinese ways of knowing were marked by an 'expansion of knowledge'. Chinese thinkers' acceptance of differing patterns of knowing was possible because of an overriding 'concept of truth that reveals itself through its usefulness'.

A fourth feature of premodern CM is its focus on clusters of illness manifestations or 'manifestation types' (证 *zheng*), rather than symptoms (症 *zheng*) or illnesses (病 *bing*) (Agren 1986). Symptoms (症 *zheng*) are the experience or phenomena of an illness (病) that are reported by the patient. Originally 证 *zheng* (manifestation types) meant the 'manifestations on the outside' and is nowadays translated as 'pattern' or 'syndrome'. *Zheng*-manifestation patterns are clinically meaningful collections of observable signs and reported symptoms — their grouping is a result of the medical gaze that organises clinical information. It was Zhang Zhongjing (张

仲景 150–219 CE) who first grouped illness manifestations and changes (the signs and symptoms of illness) in clinically logical sets and matched them with representative herbal formulas in his *Treatise on Cold Damage and Miscellaneous Disorders* (originally *c*. 200 CE) (Mitchell, Feng & Wiseman 1999).

Since the 1940s and 1950s, the core method of TCM diagnostic practice has been 'identify pattern to determine treatment' (辩证论治 *bianzheng lunzhi*) (Farquhar 1994; Scheid 2007). While Zhang Zhongjing scholars point to his use of manifestation clusters as the origin of 'identify pattern to determine treatment', TCM's identifying pattern method was conceived to encompass the variety of diagnostic models that had arisen from diverse currents over the centuries since the Han. It established a common starting point that was relevant for many of them and 'allowed the incorporation of Western disease categories into Chinese medical practice' (Hinrichs 1998, p. 302). Thus, TCM diagnostic procedure today begins with 'identifying the disease' (辩病 *bianbing*), and within disease categories, 'identifying patterns' (辩证 *bianzheng*).

A fifth feature of the Han dynasty texts is their discussion of external (non-body) disease causing agents, which shows how Chinese medical conceptions favoured a perspective based on natural phenomena and cycles. According to Han physicians, illness arose when normal functions, transformations and movements were disrupted. For example, the six environmental *qi* (六气 *liuqi*, that is, wind, cold, heat, dryness, dampness and fire) could become noxious or evil influences (邪气 *xieqi*, such as wind-evil, cold-evil, damp-evil, and so on) should they 'attack' the body surface and disrupt 'correct' or healthy *qi* (正气 *zhengqi*).

The *Treatise on Cold Damage* used *yin–yang* and the six channels (六经 *liujing*) to frame its analysis of 'cold damage'. Although the term 'cold damage' refers specifically to an illness caused by cold environmental influences, the text covers many kinds of 'external' illnesses, not only those caused by cold. The *Treatise on Cold Damage* presents a structured analysis and begins with the initial 'attack' on the most superficial aspect of the body (the 'greater *yang* channel', 太阳经 *taiyang jing*). The analysis records the stages, changes and clinical manifestations as the interactions between 'evil *qi*' and 'correct *qi*' transform and evolve the illnesses.

Before the Han dynasty, disease-causing agents exterior to the body were ghosts and ancestors. Han re-conceptualisations of external disease-causing agents identified extreme or unusual environmental factors and changes. They described how external cold evils, for example, first attack the body exterior ('cold damage'), where they obstructed the *qi* at the surface (the greater *yang* channel). The resulting cluster of manifestations — fever and chills, muscle aches and headaches, neck stiffness, a sore throat and floating pulse — typify the illness pattern. An example of the initial phases of cold damage today is catching a cold or 'flu. As the pathogenic *qi* affecting the body surface changes and worsens, the disturbance was observed to move more deeply into the body through a sequence of levels or stages.

The 'stages' described in the *Treatise on Cold Damage* correspond to the depth and location of the disorder, however the *Treatise on Cold Damage*'s six channel (六经 *liujing*) analysis differentiates 'degrees of internality of a disease process without reference to a measurable depth inside the body' (Farquhar 1994, p. 73). In the *HDNJ*, the six channels are the pathways transporting *qi* around the body; in the *Treatise on Cold Damage* they are 'levels' from the surface to the interior of the body, or more correctly, they are stages in the transformations of externally contracted illness. The six channels' 'levels' or 'stages' are on a continuum from the most *yang* exterior level or stage (the greater *yang*) to the most *yin* interior (the reverting *yin*) (see Table 2.1 e). The *Treatise on Cold Damage*'s analysis includes many detailed variations in presentation and changes that consider the person's constitution, possible worsening or resolution scenarios, and complications associated with treatments and mis-treatments.

Han dynasty discussions of the body surface and internal environment signal a sixth feature of early medical theorising. Classic Chinese medical perspectives included some detailed conceptions of the body's interior and exterior environments and of the interface between them, the body surface. The health of the body interior relied on the abundant supply of the basic physiological substances — *qi* (气), blood (血 *xue*), fluids (津液 *jinye*), and essence (精 *jing*) — and their orderly movement and distribution throughout the body. In some parts of the *HDNJ*, the body exterior functioned as 'a permeable, indefinite boundary' between the person and their circumstances and environment, giving 'an impression of the human body as virtually indistinguishable from nature' (Chiu

1986, pp. 60-61). In other sections of the *HDNJ* the body surface is more clearly distinguished as a kind of border that defended the person against external evil *qi*.

The internal body image that was elaborated most clearly in the *HDNJ* and the *Nanjing*, was derived from a much older tradition of 'cultivating life' (养生 *yangsheng*). *Yangsheng* practice regimes for breathing, physical training and dietetics were thought to maintain youthful vitality and protect the body from illness causing influences (Lo 2001; Lo & Cullen 2005). According to early cultivating life discourses, the disruptive influence of external factors relied mainly or to some extent on the state of the body's internal environment. Early medical texts used both explanations (external factors and internal harmony) independently, and more frequently they linked them to explain how internal imbalances, especially the depletion of *qi*-substances, allowed external and other illness causing influences to injure the body (Kuriyama 1993; Unschuld 1993).

Depletion (虚 *xu*) refers to a depletion of the body's correct *qi* (正气 *zhengqi*) that can occur through excess work or exercise, lack of sleep or nourishment, and other conditions. Repletion (实 *shi*) refers to the repletion of evil *qi* (邪气 *xieqi*). 'Repletion' is a term for illness causing factors from outside or from within the body, and for pathological products, such as phlegm and stagnant blood resulting from interior pathological changes. All such factors injure the internal environment and disrupt healthy life processes. The depletion–repletion dialectic emerged from and combined with the much earlier traditions of magico–religious beliefs and cultivating life practices. It allowed for the continuation of the internal- and external-body distinction with its rhetoric of attack and defence. It also allowed for the increasing importance in CM theorising of the internal environment's dynamic balance and harmonious distribution of 气 *qi*-influences and substances, and the conceptions of disease as their depletion or disrupted distribution (Kuriyama 1993).

In cultivating life and medical discourses the channels and the 气 *qi* circulating in them accounted for the human being's experience of their body from within. The notion of *qi* was related to one's sensory and subjective bodily experience: the experience of one's *qi* is felt, for example, as bodily warmth, activity, flexibility, strength; or the experience of depleted *qi* is felt as a lack of warmth, weakness, lethargy, and so on. The subjective experience of one's *qi* also included the

dynamics of internal disorders and their manifestations, such as pain, fever, bloating, ringing in the ears, stiffness or numbness.

The link between *qi* and a person's inner life experience introduces the notion of subjectivity and a seventh feature of early theorising. Although subjectivity is not unique to the CM tradition, its continuing relevance for CM practice does contrast sharply with the objective methods and standards of bio-science. CM's diagnostic methods do not discard symptoms (the patient's subjective experience of illness) in favour of signs (observable or objective data); they give equal value to both (Ots 1991). There will be more on *qi* below and throughout the following chapters, and the discussion will return to subjectivity again in Chapters Six and Seven.

To sum up the discussion so far: nature's macrocosmic and microcosmic phenomena, their fine textures and subtleties, were the subject of pragmatic investigation in China before recorded history (Sivin 1995c). The *HDNJ*'s *qi*, *yin–yang* and five phase models described dynamic systems of transformation that encompassed macrocosmic (for example, seasonal and environmental *qi*) and microcosmic (for example, the process events of human physiology) phenomena and their changes over time. Hence the ancient Chinese preference for patterns of manifestation, influence and change (rather than for data or items of knowledge); and in the context of CM's regard for relational principles, early concepts always pertain to specific phenomena in a larger context or system.

From the Han until the end of the nineteenth century China's premodern medical texts expanded upon classical models and methods by incorporating new information and insights. Thus, instead of a Kuhnian dialectic of scientific progress and obsolescence, a tradition emerged. It was a relatively holistic tradition, incorporating diet, lifestyle, mental, emotional and physical patterns and responses, and the appropriateness of them for leading a life that harmoniously suited ones macrocosmic influences such as the cycles of nature and other environmental and social circumstances.

Terms and concepts

In the previous chapter, it was shown how processes of modernisation, institutionalisation and scientisation profoundly influenced the transmission of CM

within and outside China during the twentieth century. Biomedical interpretations of CM afforded some conceptual connections for clinicians working in an integrated or biomedical practice environment, and for researchers carrying out evidence based medical research. TCM textbook writing committees integrated those interpretations with the distilled version of CM's various schools, currents and historical eras to produce a more standardised system of medicine. However, TCM's simplification and biomedicalisation of premodern terms and concepts have disrupted their connections to the tradition and its textual archive for English speakers. The discussion of terms and concepts in this section will begin with some of the English-language materials that attempt to preserve or restore those connections.

In his *Theoretical Foundations of Chinese Medicine* (1974), Manfred Porkert purposefully avoided interpretive translation in favour of linguistic transparency. For English-language readers, his was the first text to successfully convey the depth and complexity of CM (Ergil & Ergil 2008, p. 313). Some of his other publications (Porkert 1975, 1976, 1988) argued that efforts to adapt CM for contemporary practice should start from an integrated comprehension of its concepts from within their original logical and historical settings. His excellent efforts unfortunately were foiled by an unwieldy translation choice: latinisation.

More recently, Nigel Wiseman and his collaborators (1998, 2000; 1996; 1998, 2002) have been the first to develop a systematic, source-oriented glossary of Chinese medical terminology. The Wiseman *et al*'s dictionary and glossary tools allow translators to preserve original terms and concepts and to formulate source-oriented translations that are suitable for more traditional CM perspectives and practices (see Table 2.2).

Terms pertain to clinical issues in a fundamental way. Chapter One argued that biomedical interpretations (such as those summarised by Xie Zhufan's glossaries: 2002, 2003) tend to decouple current theory–practice from traditional concepts and methods. In contrast, source-oriented translations track and evolve the tradition. Because they reflect the original understanding of medical terms and concepts, source-oriented translations can reveal the continuity of medical thought over long periods (Wiseman 2009, pp. vii-viii).

Nevertheless, whether translators adopt biomedical or source-oriented terms, there is a problem with standardised, single term equivalents in that they tend to convey one-dimensional conceptions. Experienced CM physicians today encourage a more multi-levelled and diverse appreciation of terms to deepen understanding. There are so many terms and arguments about them that terminologies and their translations will feature throughout these chapters, beginning here with the notion of 'theory' in CM.

Table 2.2: Terms and translations

Terms	Pinyin	Porkert	Wiseman and Feng	Xie Zhufan
气	*qi*	energy / energetic configurations	*qi*	*qi*
五行	*wuxing*	five evolutive phases	five phases	five elements
经络	*jingluo*	sinarteriae	channels and network vessels	meridians
脏腑	*zangfu*	orbes horreales, orbes aulici	viscera and bowels	organs
命门	*mingmen*	porta fortunae	life gate	life gate
肝	*gan*	orbis hepaticus	liver	Liver
三焦	*sanjiao*	orbis tricalorii	triple burner	triple energizer
脏象	*zangxiang*	orbisconography	visceral manifestation	visceral manifestation
证	*zheng*	—	pattern	syndrome
风火眼	*fenghuoyan*	—	wind-fire eye	conjunctivitis
消渴	*xiaoke*	—	wasting thirst	diabetes

Today, early China's conceptual models are often called 'theories' or 'natural laws', though they are not laws in the sense of fixed or absolute rules, and unlike theories,

they do not account for collections of objective data. By the time *qi*, *yin–yang*, and five phases appear in the *HDNJ* they were already centuries old and fully developed expressions of Chinese cosmology and philosophy. In that sense it may be more convincing to talk about them as philosophical points of view rather than theories. But as textbooks replaced the study of classical medical texts in the mid twentieth century, the idea of 'principles' (理 *li*), which were derived from the classics, gave way to 'basic theory' (理论 *lilun*). Literally, *lilun* means a 'discussed opinion about observed patterns / principles', and 理论基础 *lilun jichu* is the term for CM's fundamental concepts as they appear in today's TCM textbooks.

The English versions of those texts use 'theory' for *lilun*. Paul Unschuld (2006, p. 15) considers the 'doctrines' of systematic correspondences (*yin–yang* and five phases) early China's version of the natural sciences, but neither he nor Nathan Sivin use 'theory' for the concepts discussed. Other contemporary authors and commentators call them 'theories' anyway, but also 'models', 'traditions', 'schools', 'ideologies', 'concepts', 'schema' and 'dialectics' (see for example Cheng 1999; Clavey 2003; Hicks, Hicks & Mole 2004; Hsu 1999; Kuriyama 1999; Liu & Liu 1998; Maciocia 2005; Shanghai College of TCM 1981).

The Chinese terms themselves help explain the shift from principles to theories, and the problems with using 'theories' as the translation for CM's traditional concepts and models. 理 *Li*-principle was at once the cause, pattern and essence of things. Historically, it corresponded to cosmic order, and in 'its most ancient meaning, [*li*] signified the pattern in things, the markings in jade or the fibres in muscle; as a verb it meant to cut things according to their natural grain or divisions' (Needham 1962, p. 558). The early notion of *li*-pattern referred to the patterned regularity of existence (Scheid 2007, p. 43).

理 *Li* became an even more important philosophical concept during the Song dynasty (960–1278), when it acquired the meaning of principle. Song neo-Confucianism thought of *li* as 'a kind of four-dimensional pattern in the universe' (Needham 1962, p. 446): it was always observed in relation to a larger context as a kind of organising principle. All phenomena and the myriad beings were seen as manifestations of *li*, or the 道 *dao*: all phenomena were brought from *dao*-potentiality to actuality according to its *li*-principles.

Before the Song, lineage and itinerant doctors seem to have mainly applied treatments and formulas symptomatically. It was the Song's Confucian physicians (儒医 *ruyi*) who developed the notion of tailoring herbal formulas to a person's manifestations and circumstances. Guided by the neo-Confucian concept of 理 *li* as innate patterns or principles, Song scholar physicians sought to match the known *qi*-patterns of medicinal substances and formula recipes with the specific *li*-patterns of individual patients (Hinrichs 1998, pp. 299-300). The clinical sections in Chapters Four and Six include a few examples of this kind of therapeutic approach.

The neo-Confucian notion of 理 *li*-principle emphasised a kind of internal coherence that lent itself to a 'new concept of "logical tendency" [理势 *lishi*]' (Jullien 1995, p. 231). 势 *Shi* means 'position', 'circumstances', 'propensity' and 'potential', and the notion of *shi*-propensity referred to the potentials inherent within the configuration and disposition of things. The neo-Confucian notion of logical tendency assumed that all phenomena, and the processes of reality itself, arose spontaneously as a result of their tendencies and propensities.

The early Chinese investigation of relatedness and interaction led to an abiding interest in the 'disposition' of things. The changes and movements of phenomena were not thought to be 'caused' so much as immanent within their *shi*-propensities (Ames 1993a; Jullien 1995). Movement and changes were not usually explained using a cause–effect dynamic because the Chinese focussed instead on the configurations of forces, on the potentials and tendencies of a situation. A thing's *shi*-propensities spontaneously oriented its processes and effects in particular directions and was regarded as the regulatory influence within reality.

As the translation for CM's traditional concepts and doctrines (理论 *lilun*), 'theory' does not capture the premodern connotations of immanence, logical tendency and the disposition of things. The meanings for *li*-patterns and principles and *lilun*-doctrines are more formal and time-honoured than theories. Furthermore, CM's *lilun* are very closely connected to practice, whereas philosophy and common English-language use 'theory' for abstract knowledge or speculation, and as an antonym for practice.

TCM's 'basic theory' is a twentieth century construct that achieved two evolutionary changes for CM. First, it effectively re-framed traditional concepts so

that they seemed more aligned with bio-scientific methods (Ochs 2005, p. 21). Second, it shifted the teaching / learning of CM towards rules of practice and away from developing the student's ability to deal with the ever-changing manifestations of illness using their understanding of principles.

Both changes echo Judith Farquar's observations regarding standardisation in the previous chapter: the standardisation of CM's signifying relations removes their diversity and flexibility, which in turn affects CM's contingent and pragmatic approach to illness (Farquhar 1987). Elizabeth Hsu's ethnographic fieldwork (1999) explores how these changes and standardisation processes have affected the transmission of CM. Her research shows that as they gave rise to 'basic theory' they led 'to an ever increasing gap between theory and practice' (p. 166). Vivienne Lo (2006) and Cinzia Scorzon (2002) characterise the fixed structures of TCM's basic theory textbooks as the skeleton upon which the rest of CM, including its practical applications, can hang. The thesis chapters below will investigate this gap to reinstate the connection between Chinese medical philosophy and practice and to flesh out the basic theory skeleton.

The distinction between *lilun* and 'theory' serves to recap two points made above. First, Chinese 'theories' do not account for collections of objective data because their epistemic methods embrace subjective practice and experience. Second, early Chinese medical 'theories' are not objective or normative principles but relational patterns that pertain to phenomena within a larger context or system. The numeric significances we find in China's ancient classics, including CM's classic texts, help explain these relational patterns. Early conceptual models often incorporated numeric sets that categorised phenomena into relational groups. Tables 2.1 a–e above note some of the relevant categories, which will be explored below and in the chapters following.

In Han dynasty writings, the two most important constructs or ideas associated with the number 'one' are 道 *dao* (the way, or potential) and 气 *qi* (influences). *Dao* and *qi* had similar characteristics insofar as the number 'one' represented a kind of unified force and process. The original meaning of *dao* is 'way' or 'road', and it is used by philosophers to mean the right way to do something, or the ethical way, or the way of nature (Nivison 1999, pp. 750-751). Philosophical discussion using the *dao* as an ultimate organising principle in nature and society had become quite

sophisticated by the Warring States period (475–221 BCE). The *dao* was an all-embracing reality and life force that both transcended the concrete, spatial world, and acted upon it. Thus while objects are spatial and defined by their physical limits they cannot be understood without knowledge of the *dao* underlying them (Harper 1990, p. 213; Wilhelm 1968, p. 323).

For ancient Chinese perspectives on being and knowing, the *dao* was one of the four greats noted in Chapter 25 of the *Daode Jing* (*c*. 460 BCE). Chapter 25 stated that the *dao* follows or models itself on nature (自然 *ziran*). In early Chinese philosophy *ziran* meant 'that which is so of itself'. *Ran* is 'something that exists or is the case,' and *zi* means 'without something else causing it'. *Ziran* is the one thing that does not depend on other things for its existence, and in contemporary texts, nature is frequently given as the translation (Lao-Tzu 1993; Lloyd & Sivin 2002). These ideas are all related to the notion of 'one' in early Chinese philosophy — the 'one', the 'great ultimate' (太極 *taiji*), was the undifferentiated source of all phenomena (Zhang 2002, p. 107).

The other entity associated with 'one' is 气 *qi. Qi* is a concept that bridges the distinction between matter and energy, and is very difficult to translate into English: energetic configurations (Porkert 1979), influences, finest matter (Unschuld 1985), vapour (Harper 1998), physiological structure (Hsu 2001b). Macrocosmically, *qi* was a broad unifying force during the Qin and Han dynasties (221–206 BCE and 206 BCE–220 CE). Microcosmically, *qi* was a multifaceted concept that organised bodily phenomena into qualitative and directional influences and substances that were linked to therapies (Felt 2008, p. 307).

In early CM, the notion of *qi* established a model that explained illness as dysfunction (Harper 1990, p. 216). The correct and free movement of *qi* influences and substances enlivened and integrated the whole body. The *HDNJ* explained the movement and circulation of *qi* by means of a network of channels and collaterals (经络 *jingluo*) whose pathways and branches reached every part of the body. CM's analysis of *qi* movement is summarised by the *qi* dynamic (the orderly ascending–descending and floating–sinking *qi* movements) and the orderly circulation of *qi* through the channel system (the main channels and their network branches).

For a long time the channel system was seen 'to constitute the essential physiological structure around which the other constituents of the body were organized' (Harper 2001, p. 99). The *HDNJ*'s detailed descriptions of channel pathways showed how they connected the body surface and its interior, the upper and lower body, its left and right sides, its *yin* and *yang* visceral systems (脏腑 *zangfu*). The channel network enabled physiological integration and exchange by circulating *qi* and other substances, and connecting the visceral systems with one another and with specific areas, structures, tissues and senses, integrating the whole body. The notion of *qi*, its movements and transformations, unified CM's channel and organ systems and linked its diagnostic categories to its treatment strategies.

The singular, unified idea of *qi*, 'the one *qi* running through heaven and earth', acquires more complexity in the fully differentiated postnatal human form. The living body's visceral systems and channels were assigned *yin–yang* and five phase attributes according to their qualitative and locational influences, their dynamic relationships and directional tendencies, their propensities for transformation and process. In early Chinese thinking, the many configurations of *qi*, *yin* and *yang*, and the five phases are encompassed by the larger process that is the *dao*.

In the Warring States period, 气 *qi* became the source of physical and non-physical life activities (see Harper 1998, and p. 5 above). The Song's neo-Confucian image of the living body explained its *qi*-patterns as a manifestation of *li*-principle or the *dao*. These notions were revised again by late Ming (1368–1644) and Qing dynasty (1644–1911) thinkers, who considered 气 *qi* the fundamental stuff of the universe, out of which tangible and physical things (器 *qi*) arose. From the seventeenth century, the Chinese medical gaze observed a synthesis of *qi*-functions that included bodily processes, sensory perceptions, desires and emotions. On-Cho Ng (1993) calls this ontological perspective 'vitalism' — a philosophy that stressed the vivid, immediate, concrete, dynamic and visible evidence of life.

The most important concept associated with the number 'two' is 阴阳 *yin–yang*. The ancient Chinese conceived of reality as continually evolving from the interactions and transformations of *yin* and *yang*. *Yin–yang* interdependence and

intertransformation were thought to orient the process of reality and its unfolding, and the principles of their interaction were thought to guide the actualisation of *qi*-influences (Jullien 1995, p. 251).

In the *HDNJ*, the *yin–yang* model is applied to human life and to the connections between macrocosmic (nature) and microcosmic (human life) phenomena. For example, the title of the *HDNJ Suwen* Treatise Five is 'The Great Treatise on the Interactions and Manifestations of *Yin* and *Yang'* (阴阳应象大论 *Yin Yang Ying Xiang Da Lun*). The text explains the comprehensiveness of *yin* and *yang* for cosmology, the environment, human physiology, diet, emotions, illness, aging, and so on. The *yin–yang* dualism of Chinese cosmology has many representations in the microcosm, the living body, such as inside–outside, lower body–upper body, organs–channels, *yin* organs–*yang* organs, blood–*qi*.

The application of *yin–yang* to the analysis of illness identified for example the location (internal / external) and the character (depletion / repletion) of the disorder. These two pairs of terms (and many other *yin–yang* pairs) still feature in TCM diagnostic methods. TCM applies classic *yin–yang* analysis to illness factors: the depletion of *qi* substances and life functions corresponded to internal depletion patterns; and external and environmental evils such as parasites and worms, wind, dampness, cold, heat and dryness, as well as the internally generated evils such as phlegm and static blood corresponded to external and internal repletion patterns.

CM applied numerically significant sets or models to describe categories of *qi* and to analyse its processes and manifestations. Its three treasures are 气 *qi*, 精 *jing*-essence (a refined concentrate of *qi*) and 神 *shen*-spirit / mind. *Jing–qi–shen* refer to the relationships between the individual's mental resources and activities (the heavenly *qi*, the *shen*-spirit / mind) and their physiological substrate (earthly *qi*, the *jing*-essence) (Harper 1990, p. 224), and the intersection between the two, the *qi*-influences and substances of daily life. The number five is associated with movement; and the number six is associated with three-dimensional space, especially relating to the body or person (Fruehauf 2006, p. 6).

In short, CM's early models and numeric sets were conceptual constructs that explained their observations of nature. In the *HDNJ*, *qi*, *yin–yang*, the three

treasures, five phases, six *qi* and six channels concepts provided detailed explanations of macrocosmic and microcosmic phenomena that included their relationships of interaction.

Summary

By the end of the Han dynasty, the character of the CM tradition and many of its enduring features were fully formed. It had absorbed the dynamic perspective of China's ancient philosophical investigations that were based on the observance of transformative processes and the continuous flow of events. Ancient Chinese philosophical and medical reasoning employed the same language — *dao, qi, yin–yang, wuxing* — a language that frames the basic conceptual structures of both ancient and contemporary CM. From the Han onwards the CM tradition displayed more than a simple, if extra-long, continuity with the historic past.

Even though the history and development of CM over the next two thousand years produced many currents of philosophy–practice and an enormously diverse textual archive, the CM 'tradition' can be identified with certain enduring conceptual models and features. From the Han, medical theorising shifted away from magical and ancestor–spirit influences in favour of the observation of nature, its phenomena and their interrelationships, its cycles, changes, transformations and process events. Thus, classical CM was based on 'the laws of nature', and 'natural law' was described in relational and functional terms.

CM's textual tradition applied natural law to the living body and to its environment; it applied the concepts and terms devised by early thinkers to categorise all phenomena. Early Chinese life sciences and medicine applied numerically significant concepts and frameworks such as the *yin–yang* and five phase correlative models to observe, describe and analyse human life, and the body in health and illness. CM's concepts and models reflected its ontological assumptions about the interrelatedness of 'the heaven–earth world' and the human individual. Numerical significances linked medical concepts to broader philosophical themes, and gave its correlative methods an organisational framework.

From the Han, medical perspectives understood that the body and its environment were subject to the same natural processes of change and transformation. The

internal harmony of body systems, the dynamic balance of *qi* influences, substances, movements and transformations, produced life and maintained health. CM's analysis of external (non-body) illness causing factors, such as cold, heat, wind and other external environmental phenomena and changes, matched its analysis of the *qi* influences, movements and transformations of the living body's internal environment. In their discussions of illness, CM's early classic texts still included an earlier conflict model where the body is invaded by evil influences. But the *HDNJ* and *Nanjing*'s application of *qi*, *yin–yang* and five phase concepts, and the *Treatise On Cold Damage*'s *yin–yang* and six channel analysis, produced a more nature-based and relational view of the body in health and illness.

CM employed a diagnostic focus that identified clusters or patterns of illness manifestations. Its methods accepted the validity of subjective experience and sensory perceptions for diagnostic information gathering (the patient's experience of their illness) and decision-making (the physician's observations and interpretations of their illness manifestations). Patterns of manifestations suited CM's early conceptions of illness, which attended to the notion of 'disorder'. When compared to the specificity of contemporary disease analysis, a term like 'disorder' seems vague and simplistic. However in the context of the CM tradition it is a notion that implies disorderly *qi* movement or distribution that disrupts the dynamic balance of bodily substances and physiological activities.

Its grounding in China's early philosophies and life sciences is what gives CM its sense of continuity and tradition. All these features were supported by the notion of resonance linking macrocosmic and microcosmic phenomena. Classical CM was based on observations of 'the laws of nature' as they applied to the living body — its *qi* movements and transformations, life patterns and habits, constitution and environment — and by the end of the Han dynasty, classical representations of the Chinese medical body were also fully formed. The next chapter will draw together the concepts and terms discussed here to reconstruct early perspectives of the medical body, and to show the position and perceptions of the medical 'gaze' that observed and investigated it.

Chapter Three:

The Body

Why were China's early correlative and numerically symbolic models such enduring concepts for interpreting the medical body? Why were they so much more important for Chinese physicians than anatomical structures and mechanisms? Although it may not be possible to fully answer these questions, asking them calls our attention to the philosophical assumptions behind early perceptions of the body and self.

Early China's Confucian, Daoist and medical texts developed various images of the body. Confucian and Daoist philosophers of the Warring States period (475–221 BCE) saw the body as 'the dynamic product of experience, [that was] continually shaped and reshaped by how one was living and had lived' (Kuriyama 1993, p. 53). These and other Confucian and Daoist images — the body as a microcosm of the state, or of the cosmos, or the body as a portion or allotment of the cosmos — are clearly evident in the *HDNJ* (*c*. 100 BCE).

From its infancy in the Han dynasty, CM's body image privileged a systemic and dynamic perspective of process and change. The *HDNJ* texts contain a number of descriptions of bodily systems, and functional areas of association and governance. They categorised the body's entities and life processes in terms of its internal visceral systems, spirit / mind resources, physiological substances, tissues and structures. All these were closely integrated and the body itself was unified by early notions of interrelatedness and 'the one 气 *qi*' flowing through all of creation.

The *HDNJ*'s various descriptions of the body all share the notion that it is formed by the correct disposition of material and immaterial structures and influences. For example, in the *Suwen* Treatise 62, the five *zang* visceral systems and their responsibilities for storing the spirit / mind and will, the *qi*, blood and flesh, are what constitute the body form (形 *xing*).

> The heart stores the spirit (神 *shen*), the lung stores the *qi* (气), the liver stores the blood (血 *xue*), the spleen stores the flesh (肉 *rou*), and the kidneys store the will (志 *zhi*). Thus is the body [形 *xing*] formed (translated in Larre & Rochat de la Vallee 1995, p. 43).

To examine CM's traditional perspectives of the body this chapter will match the historical and textual context begun in Chapters One and Two with some of the philosophical context that underpins its conceptual models and methods. Early perspectives of reality (ontology) and methods of investigating and knowing (epistemology) have clear implications for Chinese medical theorising. The examination of traditional conceptions in this chapter begins in the next section with an overview of the medical body, an overview that identifies some of the basic features that are common to both the *HDNJ* texts and TCM basic theory.

The section following examines the *Book of Changes*' (易经 *Yijing c*. 700 BCE) analysis of potentials and manifestations to explore CM's early onto-epistemics more closely. The *Book of Changes* is the earliest record of China's ancient and premodern interest in 'continuity through changes'. Its methods and interpretations were based on careful observation over time of the manifestations arising from the *dao* (道 the Way) and its potentials. When early physicians applied the *Book of Changes*' methods to the medical body, they found the body's potentials and propensities were the observable physical and non-physical features of human life processes and transformations (气 *qi*). While the *Book of Changes* established an approach to philosophical and proto-scientific issues that deeply influenced the early development of CM, its content is quite difficult to comprehend for contemporary English speakers, so the discussion will clarify some of its perspectives and influences for medical theorising, and contribute towards our understanding of this influential text.

The next section turns to the story of anatomy in China and addresses some of the reasons for CM's overall indifference towards anatomy. Because CM was concerned with the dynamic states of life from earliest times, it favoured the complexities of transformation and change over the investigation of physical structures and mechanisms. As this interest transfers to the medical body, the thesis introduces a number of terms regarding the body 'contents' and processes. Specifically, traditional CM's organ systems are the five *yin* viscera (五脏 *wuzang*);

their associated *yang* organs or bowels (六腑 *liufu*); the twelve main channel systems (十二经络 *shi er jingluo*); the five sense organs (五官 *wuguan*) and body tissues (五体 *wuti*); the five spirits / minds (五神 *wushen*) and dispositions / minds (五志 *wuzhi*).

The final section, Embodiment, examines some of the Chinese terms that are translated as 'body' in English-language texts. Terms such as 身 *shen*, 形 *xing*, and 体用 *tiyong* actually refer to the disposition and configuration of human life processes and *qi* influences, and the visible shape of becoming. China's early terms for the body include the person, their sense of self, and their social and subjective lived experience.

The body as microcosm

Philosophical and self cultivation texts from the late Warring States period signal the beginnings of Chinese theorising about the body. Fourth century self cultivation texts described the body as 'the source of virtue and ritual order', an idea that had been anticipated in the Confucian *Analects* (论语 *Lun Yu c*. 500 BCE) (Lewis 2006, p. 14). The 气 *qi* that formed each individual human being was the same *qi* that formed the cosmos, heaven and earth. After birth, the body's postnatal *qi* was derived from eating, drinking and breathing, and the processes of life were both spontaneous and ordered according to 'natural law', such as the daily and seasonal cycles.

The body as a microcosmic portion of the cosmos functioned in accordance with it. 'Heavenly' (more refined) *qi* intermingled with 'earthly' (more substantial) kinds of *qi* to produce life. As a microcosm of the heaven–earth world, the medical body combined 'cognitive ingredients, social ideals, physical data, and sensual self-awareness' (Lloyd & Sivin 2002, p. 218). As a microcosm of the state, the medical body was organised according to Chinese social ideals. Its contents were represented by the social order of the empire — its organs, processes and senses as institutions, goods and offices with particular areas of governance and functional influence (Despeux 2007a, p. 637; Unschuld 1985, 2009). So, rather than document the structural properties of the body's internal visceral systems,

Han dynasty (206 BCE–220 CE) medical discourses articulated their duties or governance (主 *zhu*).

Overall, the ancient and premodern Chinese body image was indistinguishable from the person as a whole, and the person was 'essentially interdependent with others' (Lai 2006, p. 10). Early texts saw the body surface as an interface of exchange. It was permeable and extendable, **'**Like state frontiers, these were not fixed limits, but rather flexible zones that extended outward when the inner realm was well regulated, and collapsed inward when it was not' (Lewis 2006, p. 61). *Qi*-influences from the environment and body surface moved in to the body interior, and interior influences and substances moved out to the body surface offering signs that could be read diagnostically, and a site for therapeutic interventions such as acupuncture and other 'external' therapies.

To produce life and maintain health, the body's *qi*-influences and substances moved freely throughout the body integrating the organ–channel systems, their processes and basic physiological substances. The movements and transformations of the body's *qi*, blood and fluids, and the activities of the organ–channel systems maintained a dynamic physiological balance; and the correlative models that were applied to them explained their qualities and relationships. The channels circulated CM's *qi*-influences and substances throughout the body, connecting and integrating all its systems and structures. These concepts, entities, influences and relationships are the basis of the traditional Chinese medical science of the self and the living body.

Early models and concepts were images of a dynamic unity, represented by the notion of 气 *qi*. Chinese thinkers saw reality as continuously produced out of the unitary state of *qi* that was called the 道 *dao* (the 'way' of nature). According to this worldview, the human body was inseparable from the *dao* and the cosmos, because they shared the flowing course of nature through the 'one *qi*' (Mitukuni 1973, p. 78; Zhang 1999).

After conception, the one *qi*, the source of life, begins to differentiate according to *yin–yang* and five phase 'natural law'. The medical analysis of postnatal life categorises CM's internal 'organs' according to their *yin–yang* and five phase qualities and relationships, as shown in Table 3.1. The five *yin* viscera (脏 *zang*)

are the heart, spleen, lungs, kidneys and liver. The six *yang* bowels (腑 *fu*) are the stomach, small intestine, large intestine, bladder, gallbladder and triple burner. The *zang* and *fu* are paired in relationships of association, for example, the *yin* and *yang* of the water phase are the kidney and bladder, the *yin* and *yang* of the wood phase are the liver and gallbladder.

Table 3.1: the *zangfu*'s *yin–yang* and five phase correspondences

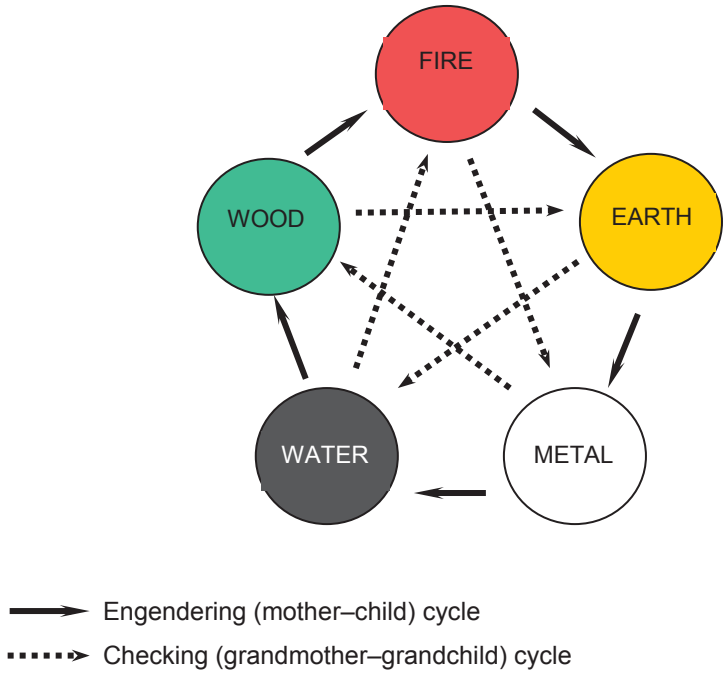
	wood	**fire**	**earth**	**metal**	**water**
zang / ***yin*** visceral systems	liver	heart	spleen	lung	kidney
fu / ***yang*** bowels	gall bladder	small intestine / triple burner	stomach	large intestine	bladder

Yin–yang and five phase 'natural law' guides the Chinese medical gaze and its analysis of association, intertransformation and interdependence. Diagram 3.1 below illustrates two examples using the five phase model. In the five phases engendering (生 *sheng*) cycle, *qi* moves and transforms from one phase to the next (black arrows). In the controlling (克 *ke*) or checking cycle, *qi* flows and transforms to every second phase (dotted arrows). Their combined influence ensures harmonious movement and transformation between body systems, their *qi* activities and areas of influence.

So, for example, the *yin* and *yangqi* of water corresponds to the *qi* of the kidneys and bladder respectively, and water engenders wood (the liver and gallbladder); water exerts a controlling influence on fire (corresponding to the *yin* and *yangqi* of the heart and small intestine); wood (corresponding to the liver and gallbladder) engenders fire (heart and small intestine); and wood controls earth (the spleen and stomach).

In the medical context, *qi* refers to life functions and processes, and to the 'basic physiological substances' including their inter-transformations and movements. The viscera and bowels (脏腑 *zangfu*) produce and transform the *qi*-substances, namely the *qi* (气) itself, the blood (血 *xue*), fluids (津液 *jinye*), and essence (精 *jing*). *Qi*-substances are formed from the food and drink ingested and from the breath. The spleen and stomach digest food and fluids; the lungs draw air into the body and circulate the *qi* through the channels. The kidneys store the finest parts of these acquired *qi* influences and substances as essence (精 *jing*).

Diagram 3.1: Five phases — 'engendering' and 'checking' cycles



Medical analysis of the body interior describes each of the *zangfu* systems in terms of their *qi*, meaning their activities, influences and associations with certain structures and functional areas. The *qi* of each visceral system travels throughout the body via the channels (经络 *jingluo*), and the channel system connects the *zang* and *fu*, the upper and lower body, its interior and exterior, thus unifying and integrating the *qi*-substances, processes and transformations of the human form (TCM basic theory conveys much of this section's information: see for example Cheng 1999; Deadman, Al-Khafaji & Baker 1998; Fruehauf 2008; Kaptchuk 2000;

Liu & Liu 1998; Maciocia 2005; Porkert 1979; Sivin 1987; Wang & Robertson 2008; Wiseman & Ellis 1996; Wu 2002).

Potentials and manifestations

The Chinese interest in 'continuity through changes' can be seen as early as the *Book of Changes* (易经 *Yijing*, *c*. 700 BCE), the oldest and most famous of China's ancient classics. Although the *Book of Changes* is not a medical classic, its methods and interpretations deeply influenced China's philosophical and scientific traditions including medicine. The *Book of Changes* records an epistemic based on the manifestations and images arising from the *dao* and its potentials. Its methods of knowing the world guided China's early medical investigations: they help to explain CM's focus on the dynamic states of human life, and why anatomical investigation methods did not feature in its representations of the medical body.

Chinese medical texts often point to the importance of the *Book of Changes* for medicine. Historically, Sun Simiao (孫思邈 581–682) and Zhang Jiebin (張介賓 1560–1639) emphasised the close relationship between medicine (医 *yi*) and *The Changes* (易 *yi*) and claimed it was impossible to practice medicine without understanding them (Qu & Garvey 2008). References to the *Book of Changes* in English-language TCM textbooks however are infrequent, and its connections with the medical tradition are not explained and inaccessible (see Farquhar 1996; Maciocia 2005; Yang 1998). Nevertheless, the *Book of Changes* is often invoked to characterize the assumptions that underpin China's early methods of investigating and interpreting reality.

Scholars such as Cheng Chungying (2003, 2006b) acknowledge how difficult it is for contemporary English speakers to understand the impact and influence of the *Book of Changes* for Chinese thinking. Cheng's (2003, p. 309) description of the *Book of Changes* notes its use of symbols and metaphors to represent the principles governing the cosmos, life and all phenomena. He describes its approach as naturalistic, organic and relational, and explains the sagely process of observation whereby the contemplation of reality and of nature's material and immaterial phenomena are carefully and comprehensively studied (观 *guan*) over time. The *Book of Changes* achieves its 'penetrating syntheses' of life phenomena,

categories, changes and natural law by the application of its *yin–yang* analysis, and Cheng attributes the *Book of Changes*' ontological unity to this approach.

From the *Book of Changes*, Chinese thinkers saw that *yin* and *yang* encompassed and connected all phenomena because they were thought to 'contain' the *dao*. In other words, *yin* and *yang* were thought to represent 'natural law'. Judith Farquhar (1994, p. 32ff) alludes to this in her discussion of 'Sources and Manifestations', explaining that *yin–yang* duality mediates 'a general movement from a unitary source … to the myriad manifestations'. The *dao*'s potentials unfold according to *yin–yang* principles and patterns of manifestation. So, as *qi* flows from the *dao*, it undergoes a process of *yin–yang* differentiation and emerges as the myriad beings. The myriad beings are the manifestations of specific patterns of *qi* and, according to Farquhar (1994, p. 33), CM's intellectual coherence begins with this cosmogenic assumption: 'The cosmic order encompasses … the body order, which is then an important specification of cosmogenesis'.

An individual human organism emerges from the undifferentiated source *qi* that flows from the *dao*. The *Book of Changes* represented the movements and changes from the *dao* to concrete reality using its *yin–yang* method, and it represented them using the notion of manifestations, images and forms. Movements and changes emerging from the *dao* follow *yin–yang* natural law; when *yin–yang* is produced, then form (形 *xing*) and propensity (势 *shi*) emerge (Hay 1994, p. 19). To take form, a new human life undergoes the process of *yin–yang* differentiation that begins with conception. As the new individual develops *in-utero*, the *yin* and *yang* organ–channel systems differentiate and take form, not just form but also movement; and with form and movement, *qi* influences consolidate and take on qualitative, locational and directional characteristics.

The *Book of Changes* used the idea of 'image' or 'manifestation' to demonstrate how observable appearances and process-events arise from the *dao*'s governing potentials. It was the *Book of Change*'s 'Great Commentary' that explained this notion of reality in terms of its 'way–image–vessel' (道象器 *dao–xiang–qi*) triad: the way, image and vessel represent abstract principles, emergent manifestations, and concrete objects respectively. The *dao* (道 way) stands for abstract principles — it is before time and without form or substance; the *qi* (器 vessel, tool or container) is subsequent in time, it has form and substance; the emergence and appearance of

phenomena is called *xiang* (象manifestation, image or symbol) (Qu & Garvey 2008).

TCM's visceral manifestations theory (脏象学 *zangxiang xue*) has its roots in the *Book of Change*'s focus on the observable manifestations of the *dao* and its potentials, its *dao–xiang* perspective. (An examination of visceral manifestation theory follows in Chapter Four.) *Xiang*-manifestations are the interface between the *dao* (immaterial, potential) and 器 *qi* (material object, the physical body). In fact, the term 'visceral manifestations' does not appear in the classical medical literature, and visceral manifestations theory has been a matter of TCM orthodoxy only since the latter part of the twentieth century. Even so, CM's other premodern texts clearly document the development of the *zangxiang* method (Unschuld 2003, p. 129). (The *HDNJ* used only the complex character for *zang* (臟) without the flesh radical (藏), which suggests that the Han dynasty medical gaze focussed on functional manifestations rather than physical structures. When discussing the *zangfu* (脏服), some TCM textbooks retain 藏 for their explanations of visceral manifestation theory (藏象学) (Liu & Liu 1998; Tessenow & Unschuld 2008).)

'Manifestations' are observable process events and transformations in and out of the *dao*, and they are produced when the changes and transformations of *yin* and *yang* become apparent. In early Chinese discourses, the 'heaven–earth world' (天地 *tiandi*) is the universe, and in the *Book of Changes*, heaven and earth are associated with two kinds of manifestations: 'images' or 'symbols' (象 *xiang*) belong to heaven, and 'forms' (形 *xing*) belong to earth. 'In heaven perfecting symbols; on earth perfecting forms: change and transformation become apparent' ('The Great Commentary', cited in Zhang 2002, p. 210).

In the medical context, 形 *xing*-form is one of the terms that English-language texts translate as 'body'. It is clear however from the philosophical–cultural context above that the term (形 *xing*) does not refer to the anatomical body. Nor does it refer only to a thing's shape, but to its innate properties and propensities. So while 气 *qi* was considered life influences, movements, substances and transformations, 形 *xing* referred to the form it assumed, to embodiment.

Premodern Chinese medical investigations relied on the systematic observation of human life manifestations. The bodily structures, substances, systems and functions identified by CM investigations are concerned with *dao*-potentials, they account for 器 *qi*-physicality, and their focus is on *xiang*-manifestations. *Xiang*-manifestations reflected the functional (physiological) and dysfunctional (pathophysiological) activities of the body's interior organ systems, and gave rise to traditional CM's visceral manifestations perspective.

The *Book of Changes*' potentials and manifestations (*dao*–*xiang*) perspective also supports CM's source–manifestation logic and has meant that, from earliest times, its investigations of health and illness focused on the living body and resulted in a more functional and processual ontology. From point of view of the *Book of Changes'* way–image–vessel (道象器 *dao*–*xiang*–*qi*) triad, the biomedical investigation of material, quantifiable structures and mechanisms could be identified with a visceral structure (脏器 *zangqi*) perspective. Appropriate methods for the *zangqi* perspective would need to analyse material structures and phenomena. Certainly, the evolution of the biomedical body image has been guided by the investigation of physical structures and objective data. Its methods can be traced to assumptions about reality and methods of knowing (onto-epistemics) that favoured the more concrete realm of anatomical dissection.

The story of Chinese anatomy

The Chinese medical body contains a number of structures that appear to have an easy correlation with anatomical equivalents — the heart, stomach, kidneys, bones, uterus and so on. We know the Chinese performed detailed anatomical dissections from very early on because the physical weights, capacities and measurements of the internal organs and other structures were recorded in the *HDNJ Lingshu*, Treatises 14, 17, 31 and 32 (*c.* 100 BCE), and in the *Nanjing*, Issue 42 (*c.* 100 CE).

The measurements recorded in the *Lingshu* and *Nanjing* are so similar to those we observe today that they could only have been obtained through dissection. The *Lingshu* Treatise Twelve apparently coined the term 解剖 *jiepou* (literally: 'cut open'), and because surgery was rare in the Han dynasty, scholars today interpret *jiepou* to mean anatomical dissection — 解剖学 *jiepouxue* in modern Chinese

(Despeux 2007b, p. 636; Hsu 2005, p. 9; Kong 2010, p. 121). Alongside these records of the body contents and their physical measurements, Han dynasty medical texts also documented non-anatomical information regarding the five *yin* visceral systems such as their association with the five dispositions / minds (五志 *wuzhi*) (Hay 1983; Yamada 1991).

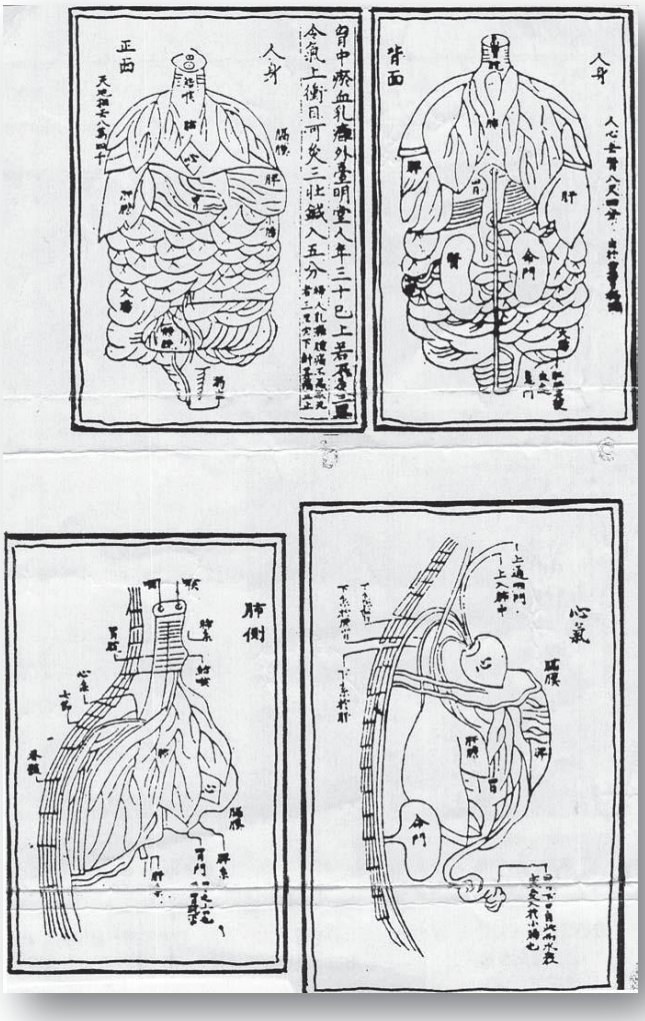
The first recorded Chinese dissections were carried out in 1045 on an executed rebel and fifty-five of his party (Hay 1983, p. 95). The anatomical drawings made from the dissections were compiled in 1113 and widely circulated for a long period of time (see Figure 3.1). Song Ci (宋慈 1186–1249), a Song dynasty medical expert, applied the information from them to the earliest known system of forensic investigation, authoring the world's first book on forensic medicine, *The Washing Away of Wrongs* (洗冤錄 *Xiyuan lu*) (Sung 1981 (originally 1247)). Fourteenth century Persian texts are known to have closely reproduced the 1113 Chinese anatomical drawings, but scholars have not been able to trace the westward flow of Chinese anatomy beyond the Muslim world (Miyasita 1977, p. 202).

One wonders why the Chinese did not pursue anatomical methods of investigating the medical or forensic body more fully. Even when the Jesuits began translating Western anatomical texts into Chinese from the sixteenth century, they seemed to attract only mild curiosity from the locals. Bridie Andrews (1996b) has shown how premodern Chinese physicians did selectively modify their tradition and assimilate a few aspects of Western anatomy because of their perceived usefulness. But on the whole, Chinese physicians already had their own, self-contained and consistent body image and before the military defeats of 1895 and 1905, the acquisition of Western learning seemed largely unnecessary.

Of course, China did have its anatomy advocates: Wang Qingren (王清任, 1768–1831) for example, deplored classical CM's representations of the internal body. In 1797, he passed through a town in the grip of an epidemic that killed eight or nine out of ten children. Their bodies were buried shallowly according to local custom, and thanks to scavenging dogs, Wang was able to observe their internal body structures without the need of deliberate dissection (Andrews 1991; Fu 2008). On the basis of his observations Wang Qingren reinterpreted traditional concepts, and in his *Correcting the Errors In the Forest of Medicine* (医林改错 *Yilin Gaicuo*, 1830) he criticised the *HDNJ* and *Nanjing* for their unreliable and self-contradictory

accounts of the body interior (Wang 2007 (originally 1830)).

Figure 3.1: Images believed to be derived from the dissections in 1045 (Fu 2008, p. 1053)



Wang Qingren and his adherents began an ongoing debate that started with anatomy and touched on all the issues of modernisation that confronted medicine in China at the end of the Qing dynasty (1644–1911). He famously rejected non-visible medical entities such as the channels (经络 *jingluo*), triple burner (三焦 *sanjiao*), and lifegate (命门 *mingmen*), even though he seems never to have questioned their main 'contents': 气 *qi*.

While Song Ci's text on forensic examinations paid a great deal of attention to the human skeleton, Wang Qingren ignored the body's bones and muscles. However

he may have been the first Chinese physician to think of the internal visceral systems (脏服 *zangfu*) as physical organs rather than functional areas and systems of influence (Andrews 1991, 1996b, p. 152; Sivin 1987, p. 140). Figure 3.2 shows some of his drawings.

Figure 3.2: Wang Qingren's views of the internal organs (Fu 2008, p. 1056)

Although Wang Qingren used his observations of anatomy to argue against the classical body image, it may be that his call for medical revisions was not based solely on his own observations of the bodies of epidemic victims. Andrews (1996a, p. 37) finds some evidence of indirect Western influence in the *Correcting the Errors In the Forest of Medicine*, and she judges that Wang's work reflected the move towards 'evidential research' (考证 *kaozheng*) that was current at the time. His scepticism of traditional doctrines moreover, matched a late Ming (1368–1644) and early Qing trend that was critical of classical systems and their numerical correspondences.

So why didn't Chinese physicians more actively develop their anatomical investigations or apply anatomical information to their medical investigations?

Western writers have frequently approached and refined these questions. It has been suggested for example, that China's sociopolitical structures stymied technological and scientific innovation to some extent, that traditions respecting one's ancestors and parents meant that one's body should not be dismembered or dissected, and that anatomy itself is an anomaly in the histories of medical sciences (Kuriyama 1999; Needham 1962, 1981).

In addition, it can be argued that, the *Book of Changes* established significant guiding principles for China's early medical perspectives and interpretations — its investigations of 'reality' and its methods of 'knowing' (Qu & Garvey 2008). As far as the CM tradition was concerned, the problem with anatomical research was that it provided knowledge of physical structures without life phenomena. The structural understanding of dead bodies simply could not contribute to CM's *dao–xiang* perspective and its investigation of *xiang*-manifestations — the *qi* movements and transformations — of human life processes. The inner organs of dissected cadavers have lost the observable manifestations and changes of their *qi*-influences and functions, because their physiological life activities have ceased. This fact makes corpses and their contents essentially irrelevant for a medical system concerned with the dynamic states of human life.

The irrelevance of anatomical data for CM is illustrated in Lu Maoxiu's (陆懋修 1818–1886) famous rebuttal of Wang's *Correcting the Errors In the Forest of Medicine*. Lu decried the moral turpitude and medical irrelevance of direct anatomical investigations. He argued, 'This teaches people to study the way of medicine [医道 *yidao*] from rotting corpses …' (cited in Andrews Minehan 2007, p. viii; and Barnes 2005b, p. 250). From the premodern perspective, anatomical dissections investigated a body whose essence (精 *jing*) is exhausted, and *qi* movement (气机 *qiji*) has ceased, whose body form and spirit (形神 *xingshen*) and *yin–yang* have separated. Wang was widely criticized for his investigations of body structures devoid of life — how could one learn about medicine and human life from dismembered corpses?

Wang Qingren's version of anatomy clearly did not employ Western methods of dissection, and from a biomedical viewpoint, his study of anatomy mixed paradigms and misinterpreted data. From a Chinese medical viewpoint the value of his text today lies, not with his criticisms of CM's classical body image, but with

his elaboration of the herbal response to blood stasis patterns. Today, the success of Wang Qingren's contribution rests with the clinical efficacy of his formulas, which in fact conform to classical perspectives and rely on traditional therapeutic strategies and rationales (Zhao 1991).

In the early twentieth century things began to change for CM: although China's medical licensing exams still required candidates to be familiar with large chunks of the medical classics in 1909, they also had to demonstrate considerable knowledge of Western medicine including anatomy (Andrews 1996a, p. 122, 1996b, p. 152). Yet, even the early twentieth century advocates for integrating Chinese and Western medicine, such as Yun Tieqiao (恽铁樵 1878–1935), observed that 'the physiology of Western medicine is based on anatomy ... and the physiology of Chinese medicine originated from the inner Classics is based on transformation of *qi*' (Zhang 2007b, p. 83). So, despite the ideological overhaul last century, today's TCM textbooks do not include anatomical or physical descriptions of the body or its contents, and the TCM body image is not anatomical. Instead, TCM's visceral systems imagery systematises the functional and dysfunctional manifestations of health and illness (Sivin 1987, pp. 120-121).

Embodiment

In the West, the investigation of body structures had promised to reveal the mechanisms of bodily activities and the objective physical changes corresponding to functional problems. To that extent, anatomical investigations were closely associated with the development of Western medical sciences, even though for a long time physicians were unable to find any therapeutic applications for the data collected from human dissections (Sivin 2000). Appropriate as it was for scientific materialism, anatomy alone could not investigate bodily function and process and in the nineteenth century, the science of physiology was born (Canguilhem 1978). As a science of function and process, physiology is arguably a more CM-friendly discipline. However, as an extension of anatomy's physicalist determinism, biomedical physiology does not correspond very well to CM's view of the living body.

The Chinese terms we translate as ‘body’ help demonstrate why. The three most common Chinese terms are 身 *shen*, 体 *ti* and 形 *xing*. Nigel Wiseman and Feng Ye (2002, p. 104) have glossed them: 身 *shen* — the person and body; 体 *ti* — the body as an organic whole; and 形 *xing* — the shape or form of the visible body. None of these conform to biomedical notions of the body, and their representations in early Chinese texts only confirm the semantic differences.

In early texts, the body was seen as the shape or disposition of the human process (Ames 1993a, p. 165). The term 形 *xing*-form applies to a configuration of *qi*-influences that takes shape and can be seen. From the Warring States period (475–221 BCE), *xing*-form was often paired with 势 *shi*-potentiality, the external shape of manifested process with its configuration of influences (Hay 1994). So a thing’s potential or propensity was implied by the physical and non-physical features of its *xing*-form, and the binome 形势 *xingshi*, referred to the visible shape of becoming, process and movement. It was a thing’s *shi*-propensities that mediated between formlessness and form, between the non-visible and visible; and *shi*-propensities were observable in ‘the disposition of things’ (Hay 1983, p. 94; Jullien 1995, 2004).

While there are passages in the early Chinese texts where the term 身 *shen* does denote ‘body’, it was not only the body as a physical entity. It was one's ‘lived body seen from within’, and its meaning included one’s ‘person’, ‘self’, ‘life’, and ‘lifetime’ (Ames 1993a, p. 165; Elvin 1993, p. 219). The *HDNJ*’s use of 身 *shen* frequently denoted the human body and the person as a whole including their life, abilities and mental state. In early Chinese language 身体 *shenti* referred to the whole body, and in contemporary Chinese, 身体 *shenti* is used to denote ‘body’ or ‘bodily’. Yet, *shenti* today also implies ‘a person or self with all the connotations of the physical, social, and mindful’ (Chiu 1986, p. 54 ff; Zhang 2007b, p. 35).

Nor should we think of the Chinese term 体 *ti* as a purely physical entity. Roger Ames (1993a, p. 172) interprets *ti* as ‘a physical rendering of meaning and value’. The rendering of meaning and value here refers to the way that ritual actions and other practices cultivate the self, one’s person. For example, Daoist and Confucian practitioners enacted their self cultivation practices and rituals to realise their real or true being. Catherine Despeux’s (2005, p. 50) study of graphic representations

(圖 *tu*) of the Daoist body notes that body images include the internal alchemical and transformative processes that accompanied these practices and realisations. The Daoist *tu* are not photo-realist representations of the physical body, they are the true form of the symbolic body, 'the true image (*xiang*) or icon of the body'.

The Chinese term 体用 *tiyong*, 'structure and function', is sometimes cited as a parallel for Western anatomy's investigation of the intersection between bodily structures and functions. While it is a term that expresses the relation between a physical form and its intrinsic activities, the Chinese use of *tiyong* did not refer to the physiology of anatomical structures. The pairing of *ti* with *yong* did not ignore the body's physicality, but emphasised the body as process, as a 'state of manifestation out of potentiality' (Hay 1994, p. 17). *Tiyong* expressed the notion of embodiment — the human body form was linked to the person's lived experience and ethical conduct.

During the Warring States period (475–265 BCE), *tiyong* meant 'embodiment' and 'application'. Then, after the Tang (618–907), neo-Confucian philosophers developed the notion of *tiyong* as 'essence put into action' (Barnes 2005b, p. 86). Linda Barnes (2005b) describes the meaning of *ti*-embodiment as one's self and body, *and* their 'core substance or essence' (p.85). *Ti* signified the intrinsic qualities of a thing, and 用 *yong* referred to its extrinsic manifestations and applications — the action of using something, and 'the *use* to which something could be put'. *Tiyong*-embodiment articulated the relation 'between the fundamental metaphysical nature of a thing and its expression, between moral principles and their being carried out by individuals' (Zhang 2002, p. 240).

Neo-Confucian representations of the 'body as process' were influential for CM. It was Confucian ethics that had tied the idea of 'human nature' to the 'core substance' of human beings, and essential human qualities 'combined compassion, benevolence, and human-heartedness' (Barnes 2005b, pp. 85-86). Thus, while *ti* indicated the inner value of humanity (仁 *ren*-benevolence), *yong* stood for its functions and practice (义 *yi*-righteousness) (Zhang 1999, p. 58).

It was Zhu Xi (朱熹 1130–1200) who paired 理 *li*-principle with 气 *qi*-influence, and in the Song (960–1278), the investigation of patterns and influence (理气 *liqi*) became the basis of the neo-Confucian perspective on being and reality (Mitukuni

1973, p. 81). The neo-Confucian interest in potential and principle (道理 *daoli*), and in the principles guiding *qi*-influences (理气 *liqi*), gave way in the seventeenth century to a less metaphysical, more evidential perspective on the nature of reality and being. For the remaining several centuries of the Imperial era, the evidence for Chinese life sciences was provided by the concrete and dynamic experiences of human life, including subjective experiences, perceptions and feelings, and 'expressed in terms of [气 *qi*] (material force) and [器 *qi*] (concrete things and implements)' (Ng 1993, pp. 37, 53).

Ancient and premodern notions of the body encompassed ethical behaviour and the effects of conduct and intentions on the human form, and this perspective took account of the lived body as seen from within. Some commentators have linked the Chinese interest in subjectivity with the early appearance and development of the concept of 气 *qi* (vitality, influences). In particular, Vivienne Lo (2001, 2005), a researcher in the early history of Asian medicine, has found that self cultivation or 'nurturing life' (养生 *yangsheng*) texts developed a detailed language to describe the body and the subjective experiences of 气 *qi*. Her work shows how these texts and practices have informed the body image found in the *HDNJ*.

Consequently, from earliest times the CM physician attended to their patients' subjective experiences, and relevant diagnostic information included the person's inner experience of disorder such as pain, discomfort, stiffness and dizziness. Diagnostically the physician relied on their own sensory perceptions to observe their patients' form and manifestations. The physician ascertained movements and qualities of their patient's *qi* by visual observation, and by palpation of the channels, the abdomen, the pulse, the tone and texture of the skin and flesh. These observations took note of qualities and changes that were impossible to detect using anatomical dissection and the inspection of corpses.

The ancient Chinese observed a cosmos of continuously changing, interacting phenomena, and early Chinese philosophical and medical investigations focussed on the processes and continuity of change. Their understanding of reality emphasised relationship, change and process, and oriented their investigations towards context and environment. The part/s had to be understood in relation to the whole, and to the complexities of the entire 'field' (Lai 2006, pp. 176-177; Nisbett 2003, p. 21).

The Chinese image of the body is therefore tied to the notion of one's 'self' or 'person', and according to Karen Lai (2006), this notion assumed an interdependent and embedded self from very early times. The same correlative and symbolic models that applied to the dynamic balance of the body's *qi* physiology also applied to its behaviours, practices, senses, mental activities and emotional responses. A number of ethical concepts such as 'cooperation, interdependence, responsibility, mutuality, sensitivity and responsiveness' (Lai 2006, p. 59), arose from this early Chinese body image. The free and orderly movement of *qi* therefore maintained not only one's physical health, but the clarity of sensory perceptions and the balance of one's inner life. The remainder of the thesis will select specific topics to examine these aspects of the Chinese medical body in more detail.

Summary

The *HDNJ Lingshu*, Treatises 32 and 62, characterised healthy human life in terms of orderly *qi* movement (气机 *qiji*), stable visceral (脏腑 *zangfu*) functions, unimpeded blood (血 *xue*), and the essential *qi* of food and drink that produced vitality (精气 *jingqi*) and the spirit / mind (神 *shen*). To maintain life and health, all the body's systems and life processes should be well-integrated, and all aspects of *qi* movement, including the five phase relationships of engendering (生 *sheng*) and restraining (克 *ke*), should be appropriate and orderly. Orderly *qi* movement harmonised *yin–yang* interactions and unified the body form and spirit / mind (形神 *xingshen*).

While it is not difficult to find accounts of anatomical investigations in the premodern Chinese literature, many of the principal entities of the Chinese medical body were not observable using these methods. This is because ancient and premodern Chinese investigations of nature, reality, being or bodies, favoured the forms and manifestations of process and transformation. They found that the organizing principles governing life were observable and relational links between heaven and earth, *dao* and manifestation.

The Chinese view of being and reality can be traced to its ancient classics and historically, the *Book of Changes* guided Chinese methods of knowing the world. The *Book of Changes'* epistemic methods were applied to the investigation of material and immaterial reality. Its analysis of categories, changes and transformations resulted in a sophisticated synthesis, or natural law, that applied to all phenomena. Nature's subtle, minute, large and overt phenomena were not observed for the sake of intellectual knowledge, but for life practice and action. The 'knowing' of natural patterns and principles relied more on embodying nature, than 'knowing about' it using abstraction and objectivity. It was personal, social and political action that was important, and 'Insight was valued insofar as it led to successful action' (Harbsmeier 1993, p. 14).

From ancient times, China's medical theories were practical and empirical, and they were concerned with whole systems and their dynamic complexity over time. Early investigations of the medical body adopted the *Book of Changes*' focus on the manifestations of *dao*-potentials and the *xing*-form's innate properties and propensities, and followed its *yin*–*yang* methods. Medical observations of human life incorporated subjective information and took particular account of the point of emergence (象 *xiang*) between the invisible potential (道 *dao*) and concrete object (器 *qi*) aspects of reality, and assumed the connectedness and interaction of all things. Behind the assumptions of connectedness lay China's early concepts of being and knowing. These proposed the *dao* as the undifferentiated potential behind all of creation, *yin* and *yang* as the expression of the *dao* in nature, and *qi* as transformative vitality and matter.

From the *HDNJ* onwards the strength of early CM lay in its preference for nature-based explanations and its sophisticated analysis of functional and relational data incorporating physical, emotional, environmental and social influences. The living body's process–systems depended on orderly *qi* movement, the harmonious interaction of *qi* and blood, and the dynamic balance of *yin* and *yang*. In those circumstances the body form and spirit / mind (形神 *xingshen*) are unified, the essence–*qi*–spirit / mind (精气神 *jing qi shen*) are strong and well integrated, the five phase (五行 *wuxing*) relationships are orderly, and human life unfolds.

CM's doctrine of visceral manifestations systematically observes the emergent manifestations of human life. It applies to CM's living organ systems, their

influences, structures and substances, to their associated sensory organs and other body tissues, consciousness, perceptions, movements and transformations. In other words, it applies to the living body and whole person. The practice of medicine, the clinician's perceptions, reasoning and decision making, are guided by learned perceptions of the body, the site of therapeutic interventions. The more specific and clinical ramifications of these learned perceptions, the Chinese medical body and its internal environment, are the subject of the next four chapters.

Chapter Four:

Coursing and Discharge

The Western medical gaze developed a structure–function epistemic method that supported a physicalist view of the body. Its investigations assumed that physical anomalies corresponded to mechanisms of dysfunction and sought to identify morphological changes with functional changes. The Chinese medical gaze understood that observable manifestations indicated interior processes: 'Governing viscera and governed parts, the vital inner core and the expressive surface — all these are related in the same way that roots and stem are related to the leaves and blossoms' (Kuriyama 1999, p. 187). The implications for the Chinese medical body were developed with the repeated testing of ideas and interventions over time.

When China's early medical scholars and physicians investigated the living body, they identified its fundamental components as the basic physiological substances, the channels that circulated them, and the internal visceral systems that transformed and protected them. The *HDNJ* (*Suwen* Treatise Five) says that the density of the body interior is maintained by the inward movement of *yinqi* (阴气), while the interior's functional activities contribute to the outward movement of *yangqi* (阳气) to the body surface. The clear *yangqi* effuses outward (发 *fa*) to permeate and fill the spaces in the skin and muscles and strengthen the four limbs, while unclear *yinqi* returns (归 *gui*) to the *zang* and *fu* organ systems. The *yin*'s inward movement brings about a convergence of essential *qi* that creates substance (Rochat de la Vallee 2006, p. 70).

By observing their manifestations at the body surface, CM's model of organ–channel systems incorporated relationships of 'governance' (主 *zhu*) that connected organs, senses, emotions, tissues, structures, regions, substances and process events. Thus, kidney depletion can manifest in lumbar pain or hair loss, and liver disorder can manifest in blurring vision or thickening of the nails. These relationships are not discernable by dissection but have been confirmed time and again by clinical observation and therapeutic intervention. With every clinical

encounter, classical and premodern conceptual models and textual information are deployed to address a specific and individual instance of disorder.

To examine the clinical relevance of these concepts and constructs today, the next four chapters turn to their textual representations and deployment in practice — the medical perspectives and methods that guide the physician's clinical perceptions and therapeutic decisions. Chapters Four to Seven will discuss specific entities associated with the Chinese medical body, the application of its traditional interpretations, and CM's theory–practice discourses in more detail. Their main purpose is to contribute to the accessibility and practical application of traditional conceptions in English. They begin with CM's representations of the interior *yin* and *yang* organs: Chapters Four and Five will focus on an example of each, the liver *zang* in this chapter, and the triple burner *fu* in the next.

This chapter focuses on the liver's governance of 'coursing and discharge'. Rather than attempt a comprehensive discussion of the Chinese medical liver, a specific focus will allow the investigation of three areas of interest for contemporary clinicians. The chapter explores an example of the Chinese medical gaze with regard to the internal organ systems; it demonstrates the flexibility of Chinese medical conceptions that have adapted to incorporate recent clinical research outcomes; and it explores an example of the kind of terminological and transmission issues that beset English-language students of the discipline. The chapter's examination of the liver's so-called 'free coursing' function will restore some of the depth and scope of the liver's traditional influences and associations.

The first section takes up Chapter Three's explanation of CM's visceral manifestations (脏象 *zangxiang*) epistemic to introduce CM's traditional diagnostic methods. At the heart of CM's internal intelligibility lies the source–manifestation logic of its potentials and manifestations (道象 *daoxiang*) perspective on reality, and the first section will help to locate the application of early China's worldview to diagnostic thinking. In the clinical setting, manifestations range from subjective sensations, responses and emotions to clinically observable information to reveal the 'source' — the nature or pattern of disorder. The clinical interpretation of manifestations is based on the clinician's understanding of the body, its *qi*-influences and substances, and the mechanisms of disorder. Diagnosis organises manifestations into medically meaningful information (证 *zheng*-patterns), and

therapy responds to the specific manifestations of each individual patient, to the *zheng*-pattern/s identified (辩证论治 *bianzheng lunzhi*).

The second section introduces the liver *zang* and uses this one example of CM's *yin* visceral systems to explore how its visceral manifestations method has produced reliable, repeatable data concerning the liver system's processes and relationships. Traditionally, the liver's associations and functions include its governance of the sinews, nails, vision, rational thinking and planning, its storage of blood and the sentient soul (魂 *hun*). The discussion however will focus on a single aspect of liver governance, its coursing and discharge (疏泻 *shuxie*) *qi*-functions.

Orderly liver 'coursing and discharge' maintains unobstructed circulation, the harmony of *qi* and blood, and normal *zangfu* activities. The discussion will reveal the absence of *xie*-discharge functions in the English literature and reinstate its meanings and interpretations. It will demonstrate how the broad influences of this one aspect of liver *qi*-function (*shuxie*) have an intermediary effect on a very large range of physiological processes, substances, tissues and structures.

The chapter's examination of classical, contemporary and research materials restores some crucial features of the Chinese medical liver. The importance of traditional conceptions is that they connect the clinician to CM's textual archive; and in this case the chapter analysis will show how they help link unrelated areas of CM in English — TCM basic theory content, and Chinese medical practice discussions, with biomedical perspectives and research. Using English-language sources alone, it is not easy to extend TCM's basic theory textbook content for the liver *zang* to the unpredictable manifestations encountered in clinical practice. It is even more difficult to connect them with biomedical perspectives or with bio-scientific research into CM.

The third section's examination of terms and clinical applications will show how CM's premodern perspectives concerning the liver can indeed lend support for some of the interpretations developed in recent times by TCM authors and researchers. The chapter will highlight relevant terms, their traditional conceptions, and their clinical relevance with reference to three types of publications. TCM's basic theory texts cover the fundamental information that guides student learning;

the case records of China's famous physicians attempt to convey the subtlety and finesse of experienced medical practice (for example Chace & Zhang 1997; Fu 1996 (originally, 1826); Jiao 2006; Qian 2006; Yue 2007). Basic theory and case discussion publications respectively, interpret and apply classical information for medical practice. A third type of CM discourse comprises recent bio-scientific research that tests traditional therapies to develop links with the biomedical perspective. Broadly speaking, students of CM rely on the first, clinicians move on to the second, and researchers are inclined to prefer the third, and overlook the other two.

Visceral manifestations theory

In the ancient medical classics the living body's inner processes produce the body form and its manifestations. CM's inference of orderly and disorderly *qi* processes from observable manifestations follows the source–manifestation logic of China's early *dao*–*xiang*–*qi* onto-epistemic (discussed in Chapter Three). In Chinese medical ontology 'there was no … mediating device between absolute truth and perceived reality' (Hay 1994, p. 18). The CM clinician gathers signs and symptoms, the manifestations of functional disturbance, directly from the patient.

Visceral manifestations theory is the systematic articulation of the human body's *qi*-influences, substances and activities, and is generally agreed to be a key methodological component of the Chinese medical tradition and its practice today. Nathan Sivin (1987, p. 112) traces the origins of visceral manifestation theory to the Northern Song (960–1127). Paul Unschuld (2003, p. 129) argues that, although the early Chinese texts that document the development of *zangxiang* are clearly established, the *zangxiang xue* doctrine itself was only so named in recent decades.

TCM's visceral manifestation theory (藏象学 *zangxiang xue*) is an empirical method whereby the activities of the internal organ systems are inferred from observable external signs. The theory or method evolved from CM's history of clinical observations and the correspondences found between interior systems and functions (the 藏 / 脏 *zang*), and their exterior manifestations (the 象 *xiang*) (Jiang 2005, p. 561; Zhang 2007b, p. 61). The *HDNJ* urged physicians to research 'the

principles of activities' of the living body, and Liu Changlin (刘長林 1960–), author of *The Philosophy of the Inner Cannon and the Methods of Chinese Medicine* (1982), shows how the *HDNJ* used *zangxiang* for its study of the body's *qi* physiology and pathophysiology. Interior *qi* activities are inferred by their observable manifestations, and *xiang*-manifestations define the relationship between surface images and inner organs (cited in Farquhar 1994, p. 94).

CM scholars and commentators all agree that *zangxiang* is relevant only for a medicine of human life and its dynamic states, and has nothing to say about physical structures without life. Liu Changlin's discussion for example quotes two of the *HDNJ*'s most famous commentators on this point, Wang Bing (王冰 *c*. 710–805) and Zhang Jiebin (张介宾 1563–1640). The *zangxiang* focus 'is much discussed as a fundamental characteristic' of CM in contemporary theoretical discourses in the PRC (Farquhar 1994, p. 65). So today, as well as the seven characteristic features of premodern medical theorising identified in Chapter Two, TCM's visceral manifestations theory is an eighth defining feature of the contemporary tradition.

TCM's Basic Theory textbooks introduce the organ systems immediately after their explanation of the basic conceptual frameworks (namely, 气 *qi*, 阴阳 *yin–yang*, 五行 *wuxing*). The internal 'organs' (脏腑 *zangfu*) are presented one by one but Chinese medical doctrines strongly emphasise the relationships between them. Western generated textbooks and Chinese textbooks in translation use 'Internal Organs' or 'Zangfu' as the heading for their chapters on the internal organ systems. Only occasionally is the term 'Visceral Manifestations Theory' used (compare for example, Cheng 1999; Kaptchuk 2000; Liu 1988; Liu & Liu 1998; Maciocia 2005; Sivin 1987; Wu 2002). The heading in the English version of a Chinese textbook for first year students in China's medical schools is titled 'The Bowels and Viscera'. The first sentence begins:

> All knowledge concerning the organs is embodied in visceral manifestation theory, which includes not only the organs' anatomy, physiology, and pathology, but also the identification of disease patterns and their treatment. …Disturbance of normal mental and emotional activity may affect … the organs causing physical illness; similarly disease of the organs may affect normal mental and emotional activity (Wiseman & Ellis 1996, pp. 51-52)

Chinese TCM texts in English frequently apply bio-scientific terms in questionable ways — the inclusion of 'anatomy' and the mind–body demarcation in the quotation above for example. Even though visceral manifestation theory does not utilise anatomical data and the West's mind–body conundrum has never applied to CM's analysis of human life, contemporary TCM texts seem obliged to mention them. Perhaps this is to conform to the scientisation of CM or to accommodate twentieth century and twenty-first century reader expectations. In the above quote, linear causational logic is used to connect the physical and mental aspects of the living body. In Chapters Six and Seven, premodern body–mind representations will be shown to be more synthetic and relational due to CM's *qi* based analyses.

While CM's notion of the interior viscera and bowels include their physical structures, Chinese medical theory–practice pays little attention to anatomical information. Instead it emphasises their functions and areas of influence that extend throughout the living body. In premodern texts and in TCM textbooks, each organ system has multi-functional influences and associations. The liver *zang* for instance influences the movement of *qi*, the storage of blood, the external genitals and medial aspect of the legs, the top of the head, the nourishment of the eyes, sinews and nails, and much more.

Because each of the body's functional systems are associated with specific senses, substances, tissues, mental–emotional abilities and responses, a disturbance affecting the visceral interior could be observed from changes in their associated functional areas. To observe such manifestations medical diagnosis relies on the 'four methods' or 'four examinations' (四诊 *sizhen*): to gather information about the patient's condition the practitioner uses looking, smelling and listening, asking and feeling (望闻问切 *wang wen wen qie*) (Deng 1999; Unschuld 2005, p. 133). The 'four methods' were established as a systematic approach to diagnosis only towards the end of the Qing dynasty (1616–1911). But as for visceral manifestations theory, the four methods are based on the approach first formulated in CM's early classical literature.

In the medical classics it is clear that the purpose of diagnosis is not to name the disease, but to determine its manifestations. Traditional diagnosis organises clinical manifestations into 证 *zheng*-patterns, which reflect the *qi* manifestations and processes that are the illness (Jiang 2005). Illness manifestations reveal what

functions are disordered, and 'the dynamic character of pathological changes under way' (Sivin 1987, p. 173).

The '*zheng*' label is given to a cluster or pattern of 'signs and symptoms' that is known to clinicians because it occurs frequently in practice and in the clinical literature. For this reason perhaps, 'syndrome', is a common translation for 证 *zheng* (see for example Xie 2002; and Yang & Meng 1998). A 'syndrome' is a biomedical term for a complex of symptoms and signs that indicate a particular disease or inherited abnormality. *Zheng*-patterns do not actually refer to a specific disease or even to a physical state so much as a pattern of manifestations, or 'manifestation type' (Agren 1986, p. 215).

CM is concerned with the person's overall functional / dysfunctional state. A diagnostic pattern is like a summary of their specific *qi*-functional state at the time of consultation. TCM's diagnostic protocol today incorporates biomedical disease entities. So the first step for diagnosis in today's clinics is to identify the disease name (the biomedical disease category) and then to identify dysfunctional states, the *zheng*-pattern/s of disorder. This means that any single 'disease' will have a number of manifestation patterns and mixed patterns, each of which reveals distinctive illness mechanisms and requires specific treatment strategies.

The importance of pattern identification for CM today lies with the principle that 'pattern identification determines treatment method/s' (辨证论治 *bianzheng lunzhi*). Judith Farquhar (1994, p. 55) says this logical moment 'is thought of as the crux of therapeutic intervention in Chinese medicine'. Here she does not distinguish between CM and TCM, which perhaps allows the reader to suppose that *bianzheng lunzhi* is a key feature of the historical tradition, and in a sense it is. Though strictly speaking, 'treatment based on pattern identification' is a twentieth century pedagogic development (Scheid 2007).

Traditional medical practice requires an understanding of the manifestations and processes of illness, and of the influence of its therapeutic interventions. Preceding the clinician's understanding of the manifestations and processes of illness and the influences of therapies, lies another requirement for diagnosis and practice — a detailed image or conception of the living body. In the early classics, an

understanding of the movements and inter-transformations of *yin* and *yang* was sufficient to explain the body's structures and life functions.

The inward–outward movements of *qi* are an example of *yin*–*yang* transformations between the body interior and exterior. The inward–outward movement of *qi* accounts for the dispersed nature of internal visceral activities and responsibilities, and the appearance of functional (and dysfunctional) manifestations externally. John Hay (1983, p. 84) and Manfred Porkert (1979, p. 126) use the idea of 'unfolding' in relation to the influence of interior organ functions. The notion of 'unfoldments' represents the body core as relatively dense and its peripheries as more dispersed, a body image 'that is very suggestive for medicine' (Farquhar 1994, p. 96).

Hay and Porkert's 'unfolding' of interior visceral influences is a translation of 主 *zhu*-governance — CM's observed relationships of governance or unfoldment account for its visceral associations, influences and manifestations. For example, *zhu*-governance links the liver system with the liver and gallbladder organs; the eyes, nails and sinews, the inner aspect of the legs; with the free movement of *qi*, blood and fluids; with planning, insight and decision making; and with the ease and clarity of mental–emotional activities and responses.

CM's *zang*-visceral systems 'govern' and administer certain associated body tissues, sense organs, and *qi*-substances, and the notion of governance evokes a sociopolitical configuration of officials and their duties that bound together the parts and processes of the living human form. For the term 主 *zhu*, common language dictionaries note meanings such as 'govern', 'host', and 'head of a family'. TCM textbooks interpret *zhu*-governance as 'physiology' or 'function'; source-oriented CM dictionaries such as Wiseman and Feng (1998, p. 244) note the meanings of 'control' and 'close association'; while Xie Zhufan's (2002) biomedical enculturation glosses have no entry for the term.

In its traditional context, the concept of *zhu*-governance binds together particular physiological substances, process events, organs and tissues in a way not discernable by anatomical investigations. As a mnemonic device, *zhu*-governance helps the student of medicine envisage a *qi*-based view of the body that attends to the influences and qualities of movement, time, transformation and relationship.

The remainder of the chapter will explore the liver's unfoldments and associations in more detail, and especially its governance of coursing and drainage.

The liver: the 'learned general', the *zang* of wood, the reverting *yin*

Biomedical liver physiology is extensive and complex with over five hundred functions identified. The biomedical liver holds around thirteen per cent of the blood supply and secrets glucose, proteins, vitamins, fats and most of the other compounds used by the body. It regulates several hormones, and it metabolises those that do not reach their targets excreting the waste either through the urine or as bile. It is involved in the regulation of blood sugar levels, cholesterol metabolism and the storage of energy. It detoxifies alcohol, nicotine, drugs and other poisons, and produces blood-clotting factors, blood proteins, bile and more than a thousand different enzymes (Harris, Nagy & Vardaxis 2006; Nabors 1997, p. 37; van Buskirk 1996, p. 30).

In the *HDNJ Suwen* Treatise Eight, the liver is likened to the office of a learned general who excels in strategy and resourcefulness. In the *HDNJ* and in today's TCM textbooks the liver is designated the *yin* or *zang* of the wood phase, and the gallbladder is the *yang* or *fu* of wood. The liver channel is the 'foot reverting *yin*' (the lower part of the 厥阴 *jueyin* channel, one of the *liujing*-six channels), and the upper part of the channel is the 'hand reverting *yin*', the pericardium. Macrocosmically the wind, the season of spring and the easterly direction are associated with the wood phase. Just as the reverting *yin* is the end of *yin* and beginning of *yang*, the *qi* of the wood phase is the 'young' *yang*: spring is the season of transition from the cold darkness of winter to the warmth and light of summer.

In premodern texts and in TCM basic theory textbooks, the liver organ–channel system is also responsible for storing the blood, housing the sentient soul (魂 *hun*), and for nourishing the nails and tendons. It opens to the outside world via the eyes and governs the eyesight. Its sound is shouting, its smell is sour, its colour is blue-green, its emotion is anger, and its body fluid is tears. All contemporary Western and Chinese generated TCM texts in English agree on these associations (for

example, Cheng 1999; Kaptchuk 2000; Kong 2005; Liu & Liu 1998; Long 2003; Maciocia 2005; Porkert 1974; Wiseman & Ellis 1996; Wu 2002).

CM analyses its 脏 *zang*-visceral systems according to their *qi*, blood, *yang* and *yin* qualities. 'Liver *qi*' and 'liver *yang*' refer to the liver *zang*'s dynamic and functional activities, while 'liver blood' and 'liver *yin*' denote its more substantive and nourishing responsibilities. Similar categories apply to all the *zang*-viscera. The following will focus on only one facet of CM's analysis of the liver's responsibilities, its *qi*-functions. A similar analysis could be undertaken for its blood, *yin* and *yang* activities (Chapter Six will pick up on some aspects of liver *yang* physiology). In this chapter, the liver *qi*'s responsibility to ensure 'orderly reaching' and the patency of *qi* circulation will serve as an example of the subtlety and complexity of CM's *yin* visceral systems, and its visceral manifestation perspective.

The traditional Chinese liver is responsible for the free movement of *qi*. 'Free movement' maintains the smooth and even distribution of *qi*, blood and fluids, and to achieve correct, free movement the liver must keep the channel system free of obstruction. The liver's 'free coursing' (疏泄 *shuxie*) function is largely responsible for this. By way of explanation, premodern and contemporary discourses frequently invoke the liver *zang*'s early association with the wood phase.

As with all the five phase correspondences, the liver's association with the wood phase bestows certain qualities to its channel–organ system and *qi*-functions. The liver commands the free movement of *qi*: the image is of the roots of a tree that spread deeply into the earth and its branches that extend and flourish in all directions. The nature of the wood phase and liver function correspond to qualities of emanation and emergence,

> … issuance and distributing of blood and nutrients, effusion of the [essence] *qi* … , promotion of high spirit in one's outlook on life, and the brightening of the vision owing to its [essence] *qi* reaching the eyes on its way out (Liu & Liu 1980, p. 47).

To ensure the life qualities of 'spreading and flourishing', the liver commands the orderly movement of *qi*, and to assist smooth circulation, liver *qi* functions help keep the channels unobstructed.

Various factors can disrupt liver *qi*-functions, the most common being mental or emotional stresses, in particular anger and frustration. The disruption to orderly liver *qi* movement will usually result in the stagnation of the liver's 'orderly reaching' nature. Orderly *shuxie* allows the free movement of *qi*-influences and substances: when *qi* and blood circulate smoothly, the mind and emotions are clear and positive; when the liver's *qi*-function is impeded the mind and emotions are depressed and confused. Disordered liver *qi* patterns manifest with discomfort in the rib-sides, a feeling of fullness in the chest, sighing, reticence and irascibility. Many cases of disorderly liver *qi* damage the spleen and stomach *qi* leading to poor digestion (Yan & Li 2007).

Recent Chinese research has extended CM's traditional interpretations so that discourses on liver function today may include aspects of neural, endocrine and immune physiology. Recent laboratory and clinical research in China testing the clinical link between the Chinese medical liver and biomedical disease entities such as hyperthyroidism and diabetes, have used herbal preparations with actions known to smooth and regulate liver *qi* functions (Flaws 2004; Zheng & Song 1994; Zhong & Tang 1994; Zuo & Zhang 1994). It seems improbable that traditional 'liver' associations and governance described above could account for their research findings. Although traditional liver governance names only a few simple associations, the ramifications for the medical body are complex and wide-ranging.

Traditionally, liver free coursing (*shuxie*) benefits and enables physiology generally. In TCM texts, its functions are summarised as maintaining the smooth regularity of the whole body's *qi* movement, the production and secretion of bile, a happy emotional life and a clear mind. These few features of the Chinese medical liver have a pivotal role in facilitating a very large number and range of physiological processes and other life activities.

The term *shuxie* first appears in *Extra Treatises Based on Investigation and Inquiry* written in 1347 by Zhu Danxi (朱丹溪 1280–1358). According to Zhu:

> Seal and store (封藏 *fengcang*) are controlled by the kidneys; dredge / course and discharge / let out (疏泄 *shuxie*) are controlled by the liver (Zhu 1994 (originally 1347), p. 6).

Shu and *xie* mean dredge and discharge and they are normally viewed as describing one single function, namely, the liver's governance of 'free coursing' or 'the patency of *qi*'. 疏 *Shu* means to course, dredge, comb, untangle and smooth (Wiseman & Feng 1998, p. 102). The liver *qi*'s *shu*-dredging and coursing helps clear away turbid *qi* and wastes produced by the viscera, bowels and other tissues: it keeps the body's *qi* and fluid pathways smooth and free of obstruction. Orderly *shu*-coursing / dredging refers to the liver's ability to smooth and regulate the flow of *qi*, blood and fluids, and this aspect of liver *qi* is generally well documented in English-language texts.

泄 *Xie* means discharge, emit, leak, release, secrete, drain, emission and diarrhoea (Wiseman & Feng 1998, pp. 130, 357). In the context of liver *qi* functions, *xie* means discharge and secrete: it includes external discharge as well as internal secretion processes, and refers to the orderly dispersal and discharge of the body's clear and turbid substances. In CM, the expression 'clear and turbid' is used in two distinct ways. The first refers to 'clear and light' (*yang*) and turbid and heavy (*yin*) substances, both of which are essential physiological substances. The second refers more broadly to clear and essential *qi* substances, and to turbid, murky waste materials. The meaning of liver 泄 *xie* function includes both — the secretion of essential physiological substances (for example bile), and the excretion of waste substances (for example stool and urine), and as ever in CM texts, correct interpretation relies on context.

The *xie* aspect of liver *shuxie*, has two kinds of discharge / secretion functions. One refers to the removal and excretion of waste substances from the body. From the biomedical perspective, the external discharge of turbid *qi* removes waste materials of catabolism (the breakdown of molecules into smaller units). The smooth circulation of *qi* and blood is clearly enhanced by the removal of waste materials. The other kind of *xie* function is the discharge of clear *qi* produced by anabolic cell activity (the construction of complex molecules from smaller units). The latter enables processes of 'secretion' — complex substances such as enzymes and hormones are secreted by the gastro-intestinal, billiary and endocrine systems. While all basic TCM texts agree about biliary secretion, other forms of liver *xie*-discharge / secretion are not explained in theory texts or clinical discussions.

The liver's *shu* and *xie* functions have a mutually supporting and engendering relationship. While coursing and dredging ensure smooth flow, clear conditions and an optimum environment for *xie* functions, *xie*-discharge and secretion depend on, complement and enable *shu*-coursing. Yet, it is almost impossible to find any mention of *xie*-discharge / secretion as it relates to the liver in contemporary CM texts in English. The liver's involvement in the internal secretion of bile is the only form of *xie* function mentioned in English-language TCM texts. The liver's *xie*-function governing the external discharge of tears may only be inferred from its association with the lachrimal fluids that moisten the eyes.

In the case of biliary secretion, the Chinese medical liver and gallbladder overlap with the biomedical liver and gallbladder. The CM explanation describes how surplus *qi* from the liver transforms to produce bile and is channelled into the gallbladder, and liver *shuxie* governs its secretion and discharge into the body (Wiseman & Ellis 1996, pp. 65-66). From the biomedical perspective, bile is partially a digestive secretion and partially an excretory product containing waste from the breakdown of red blood cells. The failure of liver *shuxie* can disrupt orderly bile secretion. When bile disperses outside its normal pathways it can manifest in jaundice, intolerance to fatty, oily foods, a bitter taste in the mouth, and distending pain in the rib-sides.

The liver channel connects with the liver and gallbladder organs and with the eyes. Tears are the body fluid associated with the liver, and lacrimation is another example of external *xie*-discharge. Tears moisten, nourish and protect the eyes and excess or insufficient lacrimation is a manifestation of liver dysfunction. However, even in their discussions of bile and tears, English-language texts contain no explanation of the liver's *xie*-discharge and secretion functions. For that reason the following discussion will focus on the liver *xie* functions and their contribution to its *shuxie* responsibilities. It will incorporate the liver channel pathway to help explain relevant features and associations, and examples of disordered liver *qi*.

Terms and clinical applications

The liver's channel connections will be used to help explain its role in disorders that are not a part of TCM basic theory or biomedical liver pathologies. All today's

main channel pathways are just as they were first described in the *HDNJ Lingshu* Treatise Ten. The *yinqi* of the liver channel begins near the big toe nails and ascends through the medial aspect of the legs, then to the abdomen, rib-sides, neck, and ends at the top of the head. In the pelvic region it connects with the genitals, testes, ovaries and other reproductive structures; in the abdominal region it connects with the liver, gallbladder, spleen and stomach. Glands of the pancreas, which belong to spleen and stomach function in CM, are located here also. From the abdomen, the channel continues through the chest region, it passes upwards through the neck and throat area, ascends to connect with the eyes, and ends at the vertex, the top of the head.

As well as describing the channel pathway and connections, the *Lingshu* Treatise Ten also says that liver disorders can give rise to chest fullness and congestion, vomiting, hiccough, diarrhoea, inguinal hernia, bed-wetting, and urinary problems (Wu & Wu 2005 (originally *c*. 100 BCE), p. 567). These clinical manifestations are not normally associated with the biomedical liver. The *Lingshu* lists 'dysuria' (闭癃 *bi long*) for example, meaning 'difficult', 'obstructed', sometimes 'painful' or 'dribbling' urine. Even though most basic theory textbooks do not associate liver governance with excretory disorders, TCM acupuncture prescriptions often suggest liver channel points on the foot and lower leg (such as LR2-*xingjian*, LR3-*taichong* or LR5-*ligou*) to treat dysuria when there is a pattern of heat and dampness obstructing the bladder (Cheng 1999; Ellis, Wiseman & Boss 1991; Maclean & Lyttleton 1998, 2002; Shanghai College of TCM 1981; Wiseman & Feng 2002, p. 199; Xie 2002, p. 586, 2003, p. 183).

Similarly, the type of diarrhoea (飧泄 *sunxie*) mentioned, does not refer to infections, parasites, food poisoning or colon diseases but to a disordered movement of liver *qi* 'invading' a depleted spleen. The 'Essential Formula for Painful Diarrhoea' (痛泻要方 *Tong Xie Yao Fang*) is a famous herbal prescription for this illness — diarrhoea with abdominal pain due to disorderly liver *qi*. The formula is designed to relieve pain and regulate the stools; its action soothes the liver and strengthens the spleen. Soothing the liver in this case means restoring and regulating its *xie* functions, the liver's role in the external discharge of waste materials.

Tong Xie Yao Fang has been used in clinical trials for the treatment of irritable bowel syndrome (IBS) (Bensky & Barolet 1990; Flaws 2004; Liu 2002; Maciocia 1994). IBS is a biomedical syndrome that is thought to be caused and exacerbated by mental–emotional stress. As early as the *HDNJ* the liver *zang* was known to harmonise mental–emotional activities and assist excretory functions. Its channel connections in the abdomen explain how gastro–intestinal tract disorders, particularly those with an emotional component, can be related to the liver *zang*. However, where contemporary TCM and clinical texts include liver *qi* patterns in their analysis of these disorders, the rationale will overlook *xie*-discharge and emphasise the disruption of smooth flow (*shu*-coursing) as the relevant patho-mechanism.

The intermediary role of the liver's governance of the patency of *qi* influences many 'discharge' processes — external excretion and internal secretion processes. As well as discharge of waste, the liver's external *xie*-discharge facilitates menstruation, lactation and seminal emission. Biomedically, the latter are related to endocrine functions and here, from a CM perspective, we can link the liver's *xie* functions to the secretion of essential (clear) substances.

In fact several digestive, hormonal and other endocrine functions rely on orderly *shuxie* (Garvey & Qu 2001). In the abdomen, the liver channel connects to the liver and gallbladder; it passes near the stomach and spleen, which in CM incorporate the functions of the pancreas. Researchers investigating diabetes have noted the importance of emotional distress in its development, and that eye problems are one of its common complications (Chen & Shan 2004; Zhang 2004). To a CM practitioner, the associations of emotional distress and eye problems immediately raise the possibility of liver dysfunction. When researchers such as Chen Jinding (1994) investigated the relationship between diabetes and liver *qi*, they found that emotional disorders could influence the hypothalamus and affect blood sugar concentrations in diabetes patients. Chen found that Chinese herbal treatment to rectify liver *qi* benefited diabetic patients with liver *qi* disharmony patterns when the usual strategies and methods had had no effect.

Chinese researchers have also linked the Chinese medical liver with immunological functions, and with the secretion of hormones and neurotransmitters. The liver channel pathway passes near the hypothalamus, pituitary and adrenal glands. These structures govern many fundamental aspects

of neurophysiology and immunology. The hormones released by the pituitary for example affect development (human growth hormone), milk secretion (prolactin), sexual and reproductive activities (luteinizing hormone), and some target other endocrine glands regulating the thyroid, ovaries and testes.

A common form of pituitary hyper-function known as hyperprolactinemia elevates prolactin levels that lower libido and often produce impotence in men. The condition is more common in women however, and key biomedical signs and symptoms include lack of ovulation, infrequent or absent menstruation, and sometimes, spontaneous lactation. In the report of their clinical trial on hyperprolactinemia, Liu Yutan *et al* (1995) note that the causational factors often include emotional depression, sudden anger, excessive grief, thinking and anxiety, and retention of phlegm (phlegm is a pathological, or illness-causing, substance in CM).

The contributing factors listed are manifestations that signal disorderly liver *shuxie* to a CM clinician, and Liu *et al*'s treatment group received acupuncture to rectify liver *qi*. Post-treatment and long term follow-up tests showed that prolactin, follicle-stimulating hormone, luteinizing hormone, progesterone and estradiol levels returned to normal or near-normal levels in the majority of subjects in their acupuncture treatment group. Research suggests that properly functioning liver *shuxie* regulates and stabilises the hypothalamus–pituitary–adrenal axis — a portion of the neuroendocrine system and the major regulator of hormonal activity and the immune mechanism (reported in Garvey & Qu 2001).

CM's kidney and liver *zang* are closely related to fertility and reproduction. From a CM perspective, liver coursing and discharge (*shuxie*) and kidney seal and store (封藏 *fengcang*) functions govern the physiological activities of the pituitary, pancreas, hypothalamus and other glands, guiding their secretions and the cascade of consequent processes and transformations. As we age, the liver and kidney *qi*-influences decline: their functions become less stable and the secretion of several kinds of hormones is affected. Biomedically, we know for example that oestrogen and testosterone levels decline, and age-related ovarian resistance and insulin resistance (Type II Diabetes) increase.

Together, the liver and kidney *zang* form a fundamental axis of CM physiology, particularly with regard to sexual and reproductive functions, and the harmonious integration of liver course and discharge (*shuxie*) and kidney seal and store (*fengcang*) is an essential component of their relationship. Furthermore, in the lower abdomen both channel pathways (liver and kidney) include the genital and reproductive structures. The 精 *jing*-essence stored in the kidneys enables male and female fertility, and in women, the liver's orderly *shuxie* and blood storage functions facilitate the menstrual cycle, pregnancy and delivery (Lyttleton 2003; Maciocia 1998; Marchment 2007; Tan 2002). In CM, the liver system's relationship with reproductive functions is attributed to its *qi* and blood functions and to its relationship with the kidney.

After ascending through the abdomen the channel passes through the diaphragm and distributes over the ribs. The channel travels through the breasts and mammary glands, and here we have another example of the liver's external *xie*-discharge. Biomedically, it is the hypopthalamo–pituitary axis that helps regulate female reproductive functions including lactation, and in CM, disordered liver *qi* is a common pattern in diseases such as mastitis and insufficient lactation (Liu et al. 1995; Marchment 2007; van Buskirk 1996; Xia et al. 1987).

Healthy lactation involves not only mammary tissues and neuroendocrine functions, but mental–emotional, genetic and environmental factors. Mental–emotional, inherited and environmental factors have always informed the clinical picture in CM. Medical practice incorporates all this information as well as the observed systemic relationships such as the stomach and spleen governing the breast, the formation of breast milk from *qi* and blood, and the normal secretion of breast milk as regulated by the liver *qi* (Fu 1996 (originally, 1826), p. 239; Tureanu & Tureanu 1994; Zhu 1994 (originally 1347), p. 62).

Fu Qingzhu (1607–1684) gives another example of how liver *shuxie* assists the *qi* processes that transform, mobilise and secrete milk.

> Postpartum Depression (and) Binding Breast Milk Not Flowing Freely
> After delivery, (some) strong young women, who may have overheard some unpleasant remarks, experience breast distention, fullness, and pain with stoppage of the breast milk's flow. ... [stomach-*yang ming*] cannot transform milk unless its flow is freed by the *qi* of liver / wood. ... Transformation of milk does not depend on

> the blood but entirely upon the *qi*. ... The appropriate treatment method is to greatly soothe liver / wood *qi*. Thus the *qi* and blood of the *yang ming* are naturally freed and the flow of milk will, consequently, also be freed. ... The formula is called *Tong Gan Sheng Ru Tang* (Free the Liver, Engender Milk Decoction) (Fu 1996 (originally, 1826), p. 131).

CM's theoretical models have been formed, discarded, adjusted and confirmed through centuries of clinical experience. For the pathophysiology of lactation, Chinese sources show how a Qing dynasty physician and twentieth century researchers applied traditional concepts (liver *shuxie* functions and channel pathway). Their published reports confirm that the resolution of lactation diseases can be achieved by restoring orderly liver coursing and discharge.

A person with disordered liver *shuxie* patterns can present in the clinic with any of the above illnesses. Their subjective experiences, the accompanying symptoms, are likely to include distending pain, irritability and agitation, and other manifestations matching the system's associations (tension in the muscles and sinews for example) and channel pathways (that travel from the first toe on both feet to the top of the head). The observation and application of these ideas in clinical practice shows the variety and range of physiological effects from disordered liver *shuxie*. Restoring the liver's orderly reaching by regulating *shuxie* function is therefore a common treatment principle for a large number of patterns and illnesses in contemporary clinics (see for example Hou 1995; Maciocia 1994, 1998; Maclean & Lyttleton 1998, 2002, 2010; Qian 2006; Rossi 2007b; Tan 2002; Yan & Li 2007; Yue 2007).

The purpose of the discussion of liver 疏泄 *shuxie*-coursing and discharge is to restore the traditional notion of the *xie* aspect of the liver's free coursing function, and to demonstrate the clinical significance of traditional terms. The explanation of their meaning in the discussion above demonstrates the potential of source-oriented translation to transmit concepts accurately, and the advantages of accurate transmission for understanding clinical manifestations. Accurate understanding of '*shuxie*' allows the clinician to recognise the manifestations of dysfunction and to discern the patho-mechanisms of disorderly *shuxie* functions. Below, the discussion extends the analysis to the diagnosis of patterns — successful treatment requires that the CM practitioner applies appropriate strategies according to the pattern of manifestations.

CM's basis in ancient philosophies investigating change and transformation has meant that there are a many medical terms for disorderly movement, including impeded movement. For example, TCM texts use 瘀 (*yu* stasis) for impaired blood circulation (the blood stasis pattern); 滞 (*zhi* stagnation) as a general term for the inhibited movement of *qi* or food, including the liver *qi* stagnation pattern; and 郁 (*yu* constraint) for the kind of liver *qi* stagnation that arises from 'emotional damage' — disorders caused by mental–emotional factors.

To succeed in treatment, the CM practitioner must adopt appropriate strategies according to accurate pattern identification. However, English-language texts often do not adhere to the distinctions that are clear enough in the technical language of Chinese source texts. For example, translations for 郁 *yu* include 'stuck', 'stagnation', 'stasis', 'constraint', 'depression' and 'binding depression' (Agren 1982; Blalack 2005; Chace & Zhang 1997; Maciocia 2005; Wiseman & Feng 1998).

Orderly liver *shuxie* enables the free and harmonious movement of *qi* and blood, and the free coursing of *qi* and blood in turn relaxes mental and emotional activities and responses — the person feels clear and positive. In the liver *qi* constraint (郁 *yu*) pattern, the liver *qi* is depleted and its movement constrained: the person is taciturn, they sigh a lot, they are susceptible to doubt and confusion, they feel depressed and their chest or abdomen feels uncomfortable. In the liver *qi* stagnation (滞 *zhi*) pattern, the liver *qi* is replete and its movement impeded: the person feels physically and mentally restless, they are hot tempered and rash, they experience rib-side fullness and have trouble sleeping (Yan & Li 2007).

In English, a pattern of 'liver constraint' (肝郁 *ganyu*), is easily confused with clinical depression because for one thing, the term 郁 *yu* is often translated as 'depression' — although the meaning actually is supposed to convey that liver *qi*-influences are lessened, depressed and constrained. Furthermore, the term 郁 *yu*-constraint / depression describes the depressive mood that is associated with mental–emotional strain; and finally, the 'liver *qi* constraint / depression' pattern (*yuzheng*) is very common in patients presenting with depression in today's CM clinics. The discussion of emotion related illnesses in Chapter Six will revisit the liver's role in their stagnation and constraint patterns.

This kind of terminological variance makes it difficult for English speakers to accurately discern CM's diagnostic patterns, and misinterpretations can easily lead to erroneous treatment decisions. In most cases the Chinese terms from which the English translations are derived are not mentioned, and this makes it impossible to cross-reference between texts and translations. Standardised, source-oriented translations are needed to help clarify terminological issues like this. Once terms and meanings are clear, the patterns and mechanisms of disorder are more easily and accurately discerned, and appropriate therapeutic responses (strategy, prescription, and techniques) can be devised.

Summary

To begin a more detailed look at the Chinese medical body and its visceral manifestation theory, this chapter's discussion moves from the overall body representations in Chapter Three to its interior *yin* visceral systems, the *zang* processes and transformations. Since it is not possible here to discuss all the visceral systems, the chapter has focussed on a single *zang* system function — the liver's governance of 'coursing and discharge' — to investigate three areas of interest for contemporary clinicians.

The first area of interest for clinicians is the orientation of the Chinese medical gaze which guides diagnostic and therapeutic decision making. The chapter argues that, although CM's epistemic methods (such as visceral manifestations) are not anatomical or physicalist methods, they have produced reliable data and repeatable interpretations. In CM, broad functions such as coursing and discharge, storing blood, housing the sentient soul and so on, characterise the liver *zang* visceral system. With every therapeutic intervention, the broad categories and relationships of its classical models and premodern textual representations become infinitely detailed at the level of the clinical encounter where they are deployed to address a specific and individual instance of disorder. After many years of study and practice using traditional methods the clinician's ability to deploy material from the medical classics to specific clinical instances becomes more and more finely tuned (Chace & Zhang 1997; Farquhar 1994; Hsu 1999; Scheid 2002a, 2002c). The experienced clinician is better able to incorporate the flexibility and responsiveness of CM's concepts and methods more fully.

The second area of interest concerns the flexibility of Chinese medical conceptions to incorporate recent clinical research outcomes. Orderly liver coursing and discharge maintains unobstructed movement, the harmony of *qi* and blood, and the integrated functions of the *zangfu*. In doing so, liver *shuxie* has an intermediary effect on a very large range of physiological processes, substances, tissues and structures. The example of liver *shuxie*, in fact mainly the *xie*-discharge / secretion aspect of liver function, served to establish the wide-ranging influences of this single feature of liver function, against the backdrop of traditional and contemporary clinical perspectives.

While all basic theory textbooks agree about biliary secretion and the liver's governance of lacrimation (tearing), other forms of liver discharge / secretion do not appear in TCM theory texts, and where they appear in clinical discussions, they are not explained. The recent clinical and research evidence cited in this chapter helps demonstrate the relationship between discharge / secretion processes (or at least their functional consequences) and liver *zang* influences. The liver *zang* has two kinds of *xie*-discharge / secretion functions. One refers to the removal and excretion of waste substances from the body: the external discharge of turbid *qi* removes waste materials, and the smooth circulation of *qi* and blood is clearly enhanced by this. The other kind of *xie* function is the discharge of clear *qi*, and refers to processes of 'secretion', for example, the enzymes and hormones secreted by the gastro-intestinal, billiary and endocrine systems.

According to traditional CM thinking, healthy liver *shuxie* is the physiological representation of the wood transformative phase and its qualities of emanation and emergence. TCM has adapted classical images and interpretations so that CM discourses today integrate relevant areas of neural, endocrine and immune physiology. With a more detailed understanding of *shuxie* it is evident that the *xie*-discharge / secretion function assists many of these systems and processes. For example, the physiological influences of the essential substances (精 *jing*) stored in the kidney that enable ovulation, menstruation and lactation in women and seminal emission in men, depend on liver *shu*-coursing and on *xie*-secretion / discharge for their timely, unobstructed release. From the point of view of today's clinician, this helps to explain why we place such importance on the liver–kidney

relationship. Biomedically, the mutually supporting functions of liver *shuxie* and kidney *fengcang* functions affect complex neural, endocrine, and immune responses.

The third area of interest for contemporary clinicians demonstrates the kind of terminological and transmission issues that affect English-language practitioners and students of CM. Examples of CM terminology revealed some of the limitations of translation and Western transmission: the *zangfu* interpreted as functional systems, biomedical organs, or the physical substrate of CM's *qi*-influences; 证 *zheng* as patterns or syndromes; liver *shuxie* and the absence of *xie*-drainage and secretion in English-language texts; the confusion over the meaning of 郁 *yu*-constraint and clinical depression. With some clarification of terminology, examples of contemporary clinical research actually help link the traditional CM liver system and its processes with biomedical structures, functions and disease categories.

To continue the thesis' more detailed examination of CM's traditional body image, the subject of the next chapter is one of CM's *yang* organ systems, the triple burner (三焦 *sanjiao*). Although the liver and triple burner are not at all closely related in TCM basic theory textbooks, both areas of theory–practice and their mutually supporting *qi* relationships will return in the context of emotions, desires and physiological fire in Chapter Six.

Chapter Five:

Spaces and Textures

The *sanjiao* (三焦), translated as the 'three burning spaces', 'triple burner', 'triple energiser', 'triple heater' or 'triple warmer' (Eastland 2006; Larre & Rochat de la Vallee 1992; Ou 1988; Wiseman & Feng 1998; World Health Organisation 2007; Xie 2003), is unlike any biomedical entity and not only in name. The *sanjiao* is even unique among CM's organ systems because it has 'no form' (无形 *wuxing*), no apparent physical structure. The notion of 'no form' has led to ongoing debate in the Chinese literature concerning the nature of the *sanjiao*, and in his *Correcting the Errors in the Forest of Medicine* (1830), Wang Qingren (王清任) rejected its existence.

In the West, the topic of the *sanjiao* has also generated a considerable amount of speculation, disagreement and misunderstanding. Some Western CM texts have identified *sanjiao* with the stomach, the stomach lining, the pancreas, the nervous system, the spinal nerves, the lymphatic system or endocrine system, none of which can be supported in the Chinese TCM or classical literature (see Damone 2002; Davis 1996; Lambert 2001; Porkert 1979). Other interpretations draw on Han dynasty (206 BCE–220 CE) references to spaces and cavities (Clavey 2003; Qu & Garvey 2001), or connective tissue structures (Matsumoto & Birch 1988; Orr 2001). Some describe *sanjiao* as a generalisation of visceral functions (Sivin 1987, p. 230), or dismiss it as 'a purely theoretical concept …, [or as] an innate source of warmth' (Unschuld 2003, p. 140). Others reject its relationship with its *yin* partner, the pericardium, as tenuous and irrelevant (Maciocia 1989; Ross 1994).

While the *sanjiao*'s internal associations with the lung (upper *jiao*), spleen (middle *jiao*), kidney and bladder (lower *jiao*) are well documented in English, its relationship to its *yin* counterpart, the heart protector-pericardium, is often neglected in contemporary TCM textbooks. The *Nanjing* (*c*. 100 CE) Issues 25 and 31 and their commentaries state that the *sanjiao* and heart protector together constitute 'outside and inside' — the heart protector-pericardium enclosing the heart internally, and *sanjiao* completely enclosing the *zangfu* and the entire body

externally. In fact the *Nanjing*'s Issue 38 compares the *sanjiao* with an external wall (Unschuld 1986, p. 397). The comparison recalls the *HDNJ*'s sociopolitical analogy of the body as state. In the *Nanjing* Issue 38 the inference is an image of the body as the imperial city: together the *sanjiao* and heart protector were like the city walls that enclose the imperial palace internally to protect the heart–emperor, and externally the city itself (see Lo 2000).

The *sanjiao* is the sixth of CM's *yang* organ systems (腑 *fu*). The other five, the stomach, small and large intestines, urinary bladder and gallbladder, are physically the same as their biomedical organ equivalents and they carry out many similar functions. Because TCM texts today tend to de-emphasise the *sanjiao*, this chapter examines its classical representations, its name, formlessness and place in the Chinese medical body.

In the *Great Dictionary of Chinese Medicine* (中医大辞典 *Zhongyi Da Cidian*,1979) the entry for 焦 *jiao* is: '1. special word for *sanjiao*; 2. muscles fail to fill shell' (cited in Qu & Garvey 2001, p. 27). The entry suggests that '*jiao*' signifies the spaces where the muscles fail to fill the outer covering of the body, and that the *sanjiao fu* actually comprises the spaces between the body's physical structures. These spaces form large cavities in the trunk, the upper, middle and lower *jiao*, and small spaces in the limbs and body surface. The small spaces are primarily associated with the body's more superficial tissues — the spaces between the skin and muscles and between smaller tissues and structures.

The deep and superficial fasciae correspond well to an anatomical notion of *sanjiao* as a network of 'bags' (in the *HDNJ* and *Nanjing*, see below) or membranes connecting the *zangfu* and their associated tissues. Furthermore, a membranous substrate for *sanjiao*'s watercourse and *qi* pathway functions defines the body's *qi* and fluid filled cavities and spaces in a structural way. At the same time, the interstitial fluids bathe all body tissues, including its membranous connective tissues that wrap, support and connect the interior and surface structures.

The chapter will examine early representations of the *sanjiao* in the *HDNJ* (*c*. 100 BCE), *Nanjing* (*c*. 100 CE), *Prescriptions of the Golden Cabinet* (originally *c*. 200 CE) and their commentaries. CM's Han dynasty classics convey a fairly detailed image

and concept that underscore the *sanjiao*'s medical importance, and reveal how the sixth *fu* and its channel system associations bridge conventional distinctions between the body interior and exterior. This famously problematic *fu* system contributes in a fundamental way to CM's analysis of *qi* and fluid physiology and the rationale for some of its clinical strategies.

By examining the relevance of the *sanjiao* for contemporary CM clinicians, the discussion reveals more of the perspective and range of the traditional Chinese medical gaze. The chapter's analysis will highlight the implications of traditional perspectives for contemporary theory–practice, and is organised as follows. It first supplies some of the textual background for CM's premodern conceptions of the *sanjiao* to explain the problems encountered by contemporary English-language readers. It then examines the notions of 'form and no form' and 'surface and interior' to explore how CM's conceptual perspectives influence its image of the body. The investigation of relevant terms and associations clarifies CM's early representations of the *sanjiao*, and links the discussion to recent bio-scientific research that supports classical concepts concerning body spaces and membranes. Finally, the chapter demonstrates how traditional perspectives inform CM's representations of illness, and how they guide therapeutic decision making.

The *sanjiao*: the 'water administration official', the *fu* of fire, the lesser *yang*

Historically, and for the contemporary student of CM, the conceptual difficulties with *sanjiao* arise mainly from its name and its lack of anatomical structure, and both are directly related to the notion of 'no form'. The *Nanjing* Issues 25 and 38 sum up the problem in stating that both the *sanjiao* and its *yin* partner the heart ruler (心主 *xinzhu*) have 'a name but no form'. The *Nanjing*'s commentaries on this issue document centuries of debate about the nature of the *sanjiao*.

The meanings for *jiao* (焦) such as roasted, scorched, burned, dried up, melancholy, focus, lamp (Kong 2005, p. 34; Wieger 1965, p. 290) do not help with its meaning in '*sanjiao*' (Sivin 1987, p. 125). Disagreements are evident in both the classics and the contemporary TCM literature where generally speaking, the *sanjiao*'s nature, structure, location, functional responsibilities and clinical relevance are under-represented or overlooked.

Even though the *sanjiao* has no anatomical organ, contemporary TCM textbooks agree that it is the sixth *fu* and the exterior partner of the pericardium (for example Anonymous 1980; Beijing College of TCM, Shanghai College of TCM & Nanjing College of TCM 1980; Cheng 1999; Liu & Liu 1998; Shanghai College of TCM 1981). Unlike the *sanjiao*, the pericardium of course is an anatomical structure — it is the membrane surrounding the heart. In fact, the pericardium's Chinese name in the *HDNJ* is 'heart enclosing network' (心包络 *xinbaoluo*) and in the *Nanjing*, 'heart ruler' (心主 *xinzhu*). However the anatomical pericardium is a material structure and has form (有形 *youxing*), whereas early CM's *xinbaoluo* / *xinzhu* did not. In the *Nanjing* Issue 25 the *xinzhu*-pericardium had 'no form' (无形 *wuxing*), and it was not the sixth *zang* (Goodman 2009b, p. 65). (The discussion will return to the *sanjiao*'s interior partner in Chapter Six.)

The problems with *sanjiao*'s name and lack of physical structure have resulted in contemporary explanations that pay little attention to the sixth *fu* as a distinct organ–channel system (Jiang 2009). Following the *HDNJ Lingshu* Treatise Eighteen, TCM texts usually describe the *sanjiao* functions as an aggregate of the other *zangfu* and their *qi*-functions. This is because Treatise Eighteen identifies *sanjiao* with the three regions of the trunk of the body: the chest or thoracic cavity (上焦 the upper *jiao*); the epigastrium in the upper part of the abdominal cavity (中焦 the middle *jiao*); and the lower abdominal region or pelvic cavity (下焦 the lower *jiao*). TCM texts agree with premodern discourses on the *sanjiao*'s functions of distributing source *qi* (原气 *yuanqi*), processing fluids and ensuring their orderly movement around the body (Cheng 1999; Kong 2005; Liu & Liu 1998; Maciocia 1989; Wiseman & Ellis 1996; Wu 2002).

However, in the *Zhong Yi Xue Ji Chu*, a Chinese textbook for first-year CM students by the Beijing, Nanjing, and Shanghai Colleges of CM (translated in 1985 by Wiseman & Ellis 1996) for example, the *sanjiao* is bundled together with the brain and uterus in a postscript at the end of the *zangfu* chapter. In traditional CM, the brain and uterus are two of the six miscellaneous or 'extraordinary' *fu* (奇恒之腑 *qiheng zhifu*) (see Table 5.1). The translated basic theory textbook does not mention the other four extraordinary organs — the bones, marrow, blood vessels and gallbladder. Although the miscellaneous *fu* are related to or governed by some

of the *zang* systems, they do not follow the correlative systems of *yin–yang* or five phases that apply to the regular *zang* and *fu*. The gallbladder is both a miscellaneous and a regular *fu* system (Larre & Rochat de la Vallée 2003; Liu & Liu 1998).

It so happens that the miscellaneous *fu* and the *sanjiao* are all thought to be closely related to the 'source' of life (Larre & Rochat de la Vallée 2003). Physiologically, the source is the essence (精 *jing*) stored in the kidneys. In its active form, essence is the source *qi* (原气 *yuanqi*), which instigates and guides all body processes and transformations. *Sanjiao*'s connection with the 'source' may account for its placement with what is left of the miscellaneous *fu* in the *Fundamentals of Chinese Medicine*; however this is not stated in the text.

Table 5.1 The five *zang* and six *fu*, and the miscellaneous *fu*

Zang, ***yin* organ systems**	***Fu,*** ***yang* organ systems**	**Miscellaneous *fu*** (do not have five phase associations)
heart (fire)	small intestine (fire)	brain
spleen (earth)	stomach (earth)	uterus
lung (metal)	large intestine (metal)	bones
kidney (water)	bladder (water)	marrow
liver (wood)	gallbladder (wood)	gallbladder
	sanjiao (fire)	blood vessels

The *Nanjing* Issue 38 says that the *sanjiao* represents an additional supply for the source *qi*, and that it governs all the *qi* circulating in the body (Unschuld 1986, p. 395). In their commentaries, *Nanjing* scholars remind us that the kidneys are the main source, and in Issue 66 it states that *sanjiao* receives the source *qi* from the moving *qi* (动气 *dongqi*) between the two kidneys. The *sanjiao*'s role is to direct the 'separation' of the source *qi* and distribute it to the *zangfu* and channels (Clavey 2003, pp. 11, 34; Rochat de la Vallee 2006, p. 96; Unschuld 1986, pp. 560-561).

In its basic state the 'source' (the essence and its source *qi*) is undifferentiated: it is the *sanjiao*'s role to separate (别使 *bieshi*) the source *qi* and distribute it to the

various organ–channel systems. Steven Clavey (2003, p. 35) goes on to say that the *sanjiao* presides over not only the differentiation of source *qi*, but the movement of minister fire and the construction and defence (营卫 *ying–wei*) *qi* in the twelve channels. This is the *sanjiao*'s '*qi* confluence' (气道 *qidao*) function.

The *HDNJ* and *Nanjing* convey *sanjiao*'s visceral imagery (*zangxiang*) features and functional responsibilities, along with some interesting 'physical' details. In the *HDNJ Suwen* Treatise Eight, *sanjiao* is the water administration official who is in charge of the *qi*-influences and the pathways of the body fluids. It is the responsibility of this palace official to provide a place for the convergence and movement of *qi* and fluids, and to regulate and dredge the body's network of water pathways. The *sanjiao*'s water pathways moisten the *zangfu*, they hold and bathe the internal organs, structures and tissues, and they keep body's temperature and fluid requirements in relative balance. This is the *sanjiao*'s 'watercourse' (水道 *shuidao*) function.

Regarding its physical location, *Nanjing* Issue 38 suggests that 'no form' simply means that *sanjiao*'s location is much broader than the other *fu* organs (Unschuld 1986, p. 397). In fact the *HDNJ Lingshu* Treatise Two and the *Nanjing* Issue 25 describe *sanjiao* as the largest of the organ systems and give its location as inside the body and outside the other *zangfu*, in a sense enclosing or holding the other organs, like an envelope or bag. *Sanjiao*'s classical 'location' enabled its traditional functions and features: its *qi* confluence and watercourse functions take place throughout the body and help integrate and protect its surface and interior. As the site for the convergence of *qi* and fluids, CM's largest *fu* system assists the whole body's *qi* transformations (气化 *qihua*), transmitting transformed materials and *qi*-influences, and discharging waste.

The next two sections will clarify explanations of *sanjiao* as spaces and cavities, as membranes, as the source of *qi* and the channel system, and reconceive *sanjiao* by considering formlessness as physiological space. Traditional conceptions of 'no form' actually connect the *sanjiao* to the 'source', and show how it helps define the body interior. *Sanjiao* thus conceived can be supported by premodern and contemporary sources, including some bio-scientific hypotheses.

Form and no form

In TCM, the upper, middle and lower body regions are usually taken as the location of the *sanjiao*. The *HDNJ Lingshu* Treatise Eighteen describes the 'three burning spaces' as the regions that envelop and hold specific organs and structures located in the thoracic, abdominal and pelvic cavities.

The upper *jiao* issues from the upper opening of the stomach, through the diaphragm distributing in the chest to the throat above. It reaches the armpit, and descends along the hand *taiyin* [lung channel]. It turns to reach the hand *yangming* [large intestine channel], ascends to the nose, then descends to pour into the foot *yangming* [stomach channel]... (see [Unknown] 2008 (originally *c*. 100 BCE), p. 327; Wu 1993 (originally *c*. 100 BCE), p. 91; Wu & Wu 2005 (originally *c*. 100 BCE), p. 601).

The quotation above describes some of the *qi* movements between the large cavities in the body trunk — between the middle and upper *jiao*. It goes on to connect these with the *qi* flow through the channel system beginning with the lung channel (the hand *taiyin*) and its *yang*-external partner the large intestine channel (the hand *yangming*). The stomach channel (foot *yangming*) follows, and the rest of the channel pathways are implied — the spleen channel (foot *taiyin*) follows the stomach and completes the first circuit (the hand and foot *yangming* and *taiyin*, the first of the *yang–yin* / outside–inside pairings). These relationships and the complete 'flow' of *qi* through all twelve main channels is shown below in Diagram 5.1. The *qi* circulates through the main channel system in the sequence indicated by the arrows. The arrows in brackets show that from the liver, the last in the twelve channel sequence, the circulation returns to the lung .

Diagram 5.1's presentation of the sequence also shows the channels' five phase relationships, and their outside–inside (表里 *biaoli*) or 'coat and lining' relationships. The first four channels for example, are the *yin* and *yang* of the metal and earth phases. The lung and spleen are also the hand and foot *taiyin* (the lining), and the large intestine and stomach are the hand and foot *yangming* (the coat). The last four channels are the *yin* and *yang* of fire and wood; the pericardium and liver are the hand and foot *jueyin* (lining), and the *sanjiao* and gallbladder are the hand and foot *shaoyang* (coat).

Diagram 5.1 The movement of *qi* through the channels

	Inside 'Lining'		**Outside 'Coat'**	
	the **inner** *yin* channels		the **outer** *yang* channels	
(⟶)	Lung	⟶	Large intestine	*METAL*
Hand *taiyin*			↓	Hand *yangming*
Foot *taiyin*			↓	Foot *yangming*
	Spleen	⟵	Stomach	*EARTH*
	↓			
	↓			
	Heart	⟶	Small intestine	*FIRE*
Hand *shaoyin*			↓	Hand *taiyang*
Foot *shaoyin*			↓	Foot *taiyang*
	Kidney	⟵	Bladder	*WATER*
	↓			
	↓			
	Pericardium	⟶	*Sanjiao*	*FIRE*
Hand *jueyin*			↓	Hand *shaoyang*
Foot *jueyin*			↓	Foot *shaoyang*
(⟵)	Liver	⟵	Gallbladder	*WOOD*

The *Lingshu* Treatise 81 expands on Treatise Eighteen to explain the connections between the *qi* transformations occurring in the three body regions, the upper, middle and lower *jiao*, and the action of the channels and other structures at the body surface. In the interior, clear *qi* (清气 *qingqi*) and fluids produced from middle *jiao* transformations ascend to the upper *jiao*. In the upper *jiao*, the lung's dispersing function pushes the *qi* from the interior outwards to the skin and flesh at the surface and through the channel circulation. The *qi* dredges and warms the divisions of the flesh (分肉 *fenrou*) (Rochat de la Vallee 2006, pp. 112-113; Sivin 1987, p. 154); it penetrates every interstitial space to nourish the tissues and structures. So when the *Lingshu* Treatise Eighteen states that the *sanjiao* emits

the *qi* to fill the skin and warms the flesh, this is how the *sanjiao* 'constitutes a layer supporting the skin and flesh from inside' (Unschuld 1986, pp. 314-315).

The metal phase (lung and large intestine) is said to govern the skin and fine body hair, while the earth phase (spleen and stomach) governs the flesh and muscles just below the skin (see Table 5.2). The skin and flesh are the body's outer structures, and their association with the metal and earth phases means they are ruled by the lung and spleen *zang* respectively. The *Lingshu* Treatise Eighteen*'s* inclusion of their channel pathways shows how the clear *qi* is transported from the middle to the upper *jiao* in the body interior, and then out to its surface. The *Lingshu* infers that external body areas at the level of the main channel system, including the skin and flesh and the extremities themselves, are involved in the location and function of *sanjiao* (Qu & Garvey 2001).

Table 5.2: Five phase *zang* and body tissue correspondences

Phase	METAL	EARTH	FIRE	WATER	WOOD
Zang	lung	spleen	heart	kidney	liver
Body tissue	skin and body hair	flesh and muscles	vessels	bones	sinews

Early CM's analogy of *sanjiao* as an 'external wall' supporting the skin and flesh from the inside is actually based on the idea of fluid and *qi*-filled spaces. In fact, the *Lingshu* and *Nanjing* frequently mention the 腠理 *couli*. Within the *HDNJ* corpus, Sivin (1987, p. 103) translates *couli* as 'interstices of the flesh', meaning the spaces within the flesh, between the muscles and skin, and between the internal organs and other structures. The image of *sanjiao* as a network of large cavities and small spaces throughout the body shows how all the body structures, tissues and cells are bathed in their *qi*-enriched interstitial fluids, and accounts for the *sanjiao*'s traditional watercourse and *qi* confluence functions.

The term '*couli*' is rarely seen in English texts but it sometimes appears in translation. Translations vary, and include for example 'striae' (Ou 1988; World Health Organisation 2007), 'striated layer' (Xie 2003), 'interstices' (Eastland 2006;

Wiseman & Feng 1998; World Health Organisation 2007), ‘skin structures’ (Unschuld 2003, 2005), ‘pores’ and ‘sweat glands’ (Eastland 2006; Unschuld 2003; Xie 2003), and the patterns of the skin (Lo 2000). In Xie Zhufan (2003, p. 36), muscular striae (即腠 *jicou*) is the term for the ‘superficial layer of the human body under the skin’ and *couli* (‘striated layer’) is a ‘collective term for the skin, sweat pores, subcutaneous tissues and muscles’.

Translations such as ‘striae' and ‘interstices’ convey information regarding the ‘anatomical’ features of the term — the natural patterns and lines of the skin and muscles and the spaces between the cells, and between the skin and muscles. ‘Pores’ and ‘sweat glands’ approach some of the *couli*’s functional characteristics because they do include or influence the functions pertaining to these. However, the *couli* are found throughout the flesh, muscles and other body structures so while they include the pores and sweat glands, they are not only within or just below the skin.

Couli is a term that appears quite often in the *HDNJ* and Zhang Zhongjing (张仲景 150–219 CE) explains its meaning and its importance for understanding the *sanjiao*:

> In the surface tissues and between the *zangfu*, the crevices (*cou*) and their textures (*li*) are the place where the *sanjiao* moves and gathers the source (原 *yuan*) [and] true (真 *zhen*) [*qi*], the places which are suffused with *qi* and blood. (Clause 1–2 in the *Prescriptions From the Golden Cabinet,* originally *c*. 200 CE) (from Clavey 2003, p. 10; Qu & Garvey 2001, p. 29; Zhang 2007 (originally *c*. 200 CE), p. 3).

Zhang Zhongjing identifies the *cou*-spaces as belonging to the *sanjiao* and as the place where CM’s *qi* substances converge. The character for *cou* with a water radical (湊) instead of the flesh radical (腠) actually means ‘convergence’ or 'confluence' (Larre & Rochat de la Vallee 1992, p. 103; Wiseman & Feng 1998, p. 106). So the Chinese term (*couli*) reinforces the idea of the *qi* and fluids converging in *sanjiao*’s network of spaces.

In its most ancient meaning, 理 *li* signified the pattern in things, the markings in jade or the fibres in muscle. Donald Harper (1998, p. 83) discusses the meaning of physiological terms in use during the historical period consistent with the

development of ideas presented in the *HDNJ*. In his study of the Mawangdui medical manuscripts (dated to the centuries before 168 BCE) Harper interprets *li*-pattern as ‘network’, as for example in ‘network of *mai*-vessels’. As a medical term, *li*-network also conveys the idea of three-dimensional patterns that reflect systemic associations and relationships.

In the *HDNJ* and later medical classics, both ideas (the 'pattern in things' and 'network') are present in the use of *li*. In Qu and Garvey (2001) the patterns or striations occurring in the muscles, flesh, tissues and organs are called *li*-textures, and the interstices and small spaces (*cou*) between these spaces and their textured structures are distributed like a patterned network throughout the body surface.

After the Song (960–1279) and in the context of the ‘*couli*’, *li* is a principle of bodily organisation. The idea links exterior and interior body systems: the patterns or textures that apply to the *zang*, *fu*, tissues, muscles, and skin structures support the associations of particular organs, tissues, and body areas consistent with five phase correspondences. For example, the lung governs or unfolds in (主 *zhu*) the skin and fine body hair, and the spleen in the flesh and muscles. Thus, the *couli* form a cohesive body system connecting the *zangfu*, their tissues, the muscles, flesh and skin, integrating upper and lower, external and internal, shallow and deep.

From these examples in CM’s early literature it appears that *couli* is a technical, almost ‘anatomical’ term. Chinese medical terms identify the ‘no form’ of the sixth *fu* with the functional significance of tissue spaces and body cavities. With this image in mind it is clear how the body’s network of spaces enables *sanjiao*’s relationships to other structures and systems and its functionality — the confluence of the source *qi* with the *qi* and fluids of the three *jiao*, their movement outwards to the small surface spaces and through the interior cavities that surround the *zangfu*.

The confluence of *qi* and body fluids in the *sanjiao* forms a powerful defence against evil (邪 *xie*) *qi*: when the correct (正 *zheng*) *qi* is strong, the *couli* are filled and compact, the sheaves of muscle are smooth, the *zang* and *fu* are in harmony, and evil *qi* cannot penetrate the body. If any aspect of the physiological

substances is depleted however, correct *qi* is weakened. This will loosen the *couli* and allow evil *qi* to disrupt the tissues and channels, the *zangfu* and their functions.

Contrary to the network of spaces concept above, some contemporary authors such as Kiiko Matsumoto (1988), Stephen Birch (2003; and 1988) and Bryn Orr (2001), identify *sanjiao* with the body's fascial system. Fasciae are the soft tissue components of the connective tissue system, and the fascial membranes wrap, hold and connect all the body structures. They interpenetrate and surround all organs, muscles, bones, blood vessels and nerve fibres, forming a continuous, three dimensional, whole body matrix of structural support.

Kiiko Matsumoto and Stephen Birch are Japanese trained acupuncture practitioners who trace the 'fascial tissues' interpretation of *sanjiao* to the *Lingshu*, the *Nanjing* and its commentaries, and from there to twelfth century and later Chinese sources. Matsumoto and Birch (1988, p. 164) refrain from asserting an absolute match between the fasciae and premodern Chinese conceptions, but they establish a good case for the correlation between this system and the *sanjiao*. They argue that the 'fatty, greasy membranes' (膏肓 *gaohuang*) mentioned in the *Lingshu* Treatise One most likely are connective tissue structures. Several facts are presented to support the idea. For example, apart from the skin itself, the superficial fascia is the only physical structure or 'large envelope' that contains and holds the body. The body's fascial system is made up of superficial and deep membranous structures: the superficial fascia is continuous with the layers of the skin; underneath the skin the deep fascia passes from the body surface to the interior; and together they form a structural and mechanical continuum throughout the body, 'even into the innermost parts of each cell' (Matsumoto & Birch 1988, pp. 137, 160).

The arguments concerning facial and connective tissue have some resonance with the *Nanjing*'s representations of *sanjiao*'s *yin* partner, the pericardium. In the *Nanjing* the *xinzhu*-pericardium encloses and protects the heart. In 1269, Li Jiong's (李駉) commentary on Issue 25 described the *xinzhu*-pericardium as a 'fine muscular membrane' that resembles silk threads and is linked to the heart and lungs. It is also described as 'a small bag'; its *yang* counterpart the *sanjiao* is described as 'a large bag' supporting and holding the human organism from the outside. In fact, Huang Weisan's (黃維三) 1969 commentary on Issue 31 says the

sanjiao is ‘a fatty membrane covering the entire physical body from the inside’ (Unschuld 1986, pp. 312, 355).

Some researchers have used the fascial system to account for the therapeutic effect of acupuncture, massage, cupping and scraping (Fei et al. 1998; Fung 2009; Langevin et al. 2001; Langevin & Yandow 2002; Nielsen 1995, 2007; Orr 2001; Oschman 2003; Palhalmi, Bai & Yuan 2010; Shang 2007). They have found that all body cells are connected to one another via the connective tissues, and that the fascial tissue network in particular contains lymphocytes, fibroblasts, nerves, capillaries, ‘undifferentiated mesenchymal cells and several types of multipotent cells that play a fundamental role in tissue growth, remodelling and regeneration’ (Palhalmi, Bai & Yuan 2010, p. 200). Thus, recent bio-scientific research suggests that the membrane (*gaohuang*) interpretation offers a physical mechanism to explain the effects of therapeutic interventions that take place at the body surface.

As well as the fascial mechanism researchers, there is another stream of research publications proposing that together the interstitial body fluids and fasciae act as migratory tracks that can efficiently transfer many specific biochemicals (Fung 2009; Ho & Knight 1998; Ma et al. 2003; Wang, Ayate & Zhang 2010). Mae Wan Ho and David Knight have identified layers of structured water molecules in the body’s connective tissues that form an ‘aligned, collagen liquid crystalline continuum’ (1998, p. 253), which supports the mechanical and electrical connections between all body cells. When they explain some of the mechanisms discovered, they draw attention to the system’s coherency and facility for rapid communication. They describe the rapid, whole-body intercommunication system as a kind of ‘body consciousness’ (Ho 1997).

> [T]he aligned, collagen liquid crystalline continuum in the connective tissues of the body with its layers of structured water molecules [supports the] rapid semi-conduction of protons. This enables all parts of the body to intercommunicate readily, so the organism can function as a coherent whole. This liquid crystalline continuum ... constitutes a "body consciousness" that is functionally interconnected with the "brain consciousness" of the nervous system (Ho & Knight 1998, p. 253).

While it is easy enough to picture *sanjiao*’s traditional functions, the confluence and dissemination of *qi* and fluids, occurring in the body’s spaces and cavities, it is not clear how membranous structures can achieve this. Interestingly, the *Lingshu*

(*c*. 100 BCE) and the *Nanjing* (*c*. 100 CE) are Matsumoto and Birch's sources for the greasy membranes. Both classics are predominantly concerned with acupuncture therapy, while the *Prescriptions from the Golden Cabinet* (*c*. 200 CE), a herbal classic, is Clavey, Qu and Garvey's source for the significance of spaces.

In my view, these two interpretations of *sanjiao*, as a structural network of connective tissues and as a system of cavities and spaces, can be seen as two complementary currents or interpretations of the tradition. Although the relevance of membranous structures for internal (herbal) medicine interventions seems slight, the fascial system interpretation is derived from classical terms and descriptions, and the mechanical stimulation of fascial tissue may contribute to or even explain the systemic effects of external therapies such as acupuncture. Conceptions of the *sanjiao* as a network of body spaces containing fluids and *qi* that bathe all the cells, tissues and structures relate well to the administration of herbal therapies. Decocted herbal formulas are readily absorbed into the body's milieu of internal fluids to produce specific and systemic effects on cellular and organ physiology.

To summarize the preceding remarks, source oriented translations of CM terms allow for a better understanding of the *sanjiao* and its medical relevance. The investigation of traditional terms such as *couli* (spaces and textures) and *gaohuang* (membranes) connects us with the textual archive, and from there we can relate *sanjiao*'s lack of form to two kinds of anatomical explanations. In the first, *sanjiao* is not a physical structure but a network of spaces and cavities — (non-) structures that arise from the lifegate, that support *sanjiao*'s traditional functions and characteristics, and that absorb and transmit the therapeutic influences of medicinal substances. In the second explanation, the *sanjiao* network arising from the lifegate is a physical structure that can be identified with the membranous connective tissues.

For CM, there is no reason to discard one idea in favour of the other, unless it was to prove of no use therapeutically. Successful treatment protocols have developed around both and are applied to many areas of clinical intervention. Both interpretations support the classical image of *sanjiao*. Its form and location is associated with the grain or texture of the skin, flesh, muscles, connective tissue and organs, and the spaces that exist between these structures and textures. The *sanjiao* 'network' provides the environment in which *zangfu* activities take place. It

ensures the normal functions and processes of the *zangfu* and other body tissues, and helps integrate, circulate and transmit their *qi*-influences and substances.

The body surface and interior

Relative to the interior organ systems, the channels, skin, muscles and flesh are the body exterior. The *yang* and *yin* main channel pathways travel through the exterior on the 'outside' and 'inside' (表里 *biaoli*) respectively, like a coat and its lining (as above in Diagram 5.1). The skin, muscles, flesh and *qi* pathways hold and protect the interior — the *zangfu* and their *qi*-influences and substances. In CM's early classics we find that the *sanjiao* both supports and integrates these boundaries, bridging the distinction between the body surface and interior.

Sanjiao arises from deep within the body — from the 'source' of *qi* movement and transformation, the lifegate (命门 *mingmen*). Interiorly it envelopes the *zangfu* and assists their *qi*-functions. Exteriorly, the *sanjiao* envelopes and 'holds' the body organs and tissues, and on the body surface it helps form a layer that protects the body and moderates the effects of climatic variation (Lo 2000).

CM sees the body surface as a permeable structure, patterned with textured tissues and spaces. As the boundary between the body's external and internal environments, the skin is not just a physical structure covering the body surface. The premodern Chinese perspective of the 'body as process (体用 *tiyong*)' reflects early observations about the permeability of its interior–exterior boundary. John Hay (1994, pp. 17-18) for instance explains the skin as 'more like the configuration of a cloud: a very sudden gradient in density ... a dynamic interface … between the body and its environment'.

As the body's largest sense organ, the skin is sensitive to climatic influences, physical contact, tactile sensory information, and all kinds of environmental phenomena. In documenting the potentially disruptive effects of external wind, heat, cold, dampness and dryness, the early classics noted that the body surface could deflect or absorb external influences, including external evil *qi*, depending on the quality and sufficiency of the correct *qi* (正气 *zhengqi*). If the correct *qi* is depleted

the *couli* are not filled, evil *qi* is able to penetrate and disrupt the body surface (Bray 1997, p. 737).

Not only does the *sanjiao fu*-organ system's network of spaces, textures and membranous structures communicate between the body surface and interior. Its channel associations reflect the same connections and dynamics. The *sanjiao* channel is paired with the gallbladder, and together they are the upper and lower parts of the lesser *yang* (*shaoyang*) channel. In Zhang Zhongjing's *Treatise On Cold Damage* (*c*. 200 CE), the *shaoyang* is known as the 'pivot' or 'hinge', an intermediary 'level' between the body surface and its interior, between the *taiyang* and *yangming* channels. The *shaoyang* is the *yang* exterior partner of the reverting *yin* (*jueyin*) — the *shaoyang* and *jueyin* relationship is one of the channels' *yang*–*yin* 'coat and lining' relationships. Table 5.3 below extends Table 2.1e in Chapter Two to show the six channels (*liujing*) in order of their 'depth'.

Table 5.3: The six channels

Six channels	Upper part of the channel	Lower part of the channel
taiyang (greater *yang*)	hand *taiyang*, the small intestine channel	foot *taiyang*, the bladder channel
***shaoyang* (lesser yang)**	**hand *shaoyang*, the *sanjiao* channel**	**foot *shaoyang*, the gallbladder channel**
yangming (*yang* brightness)	hand *yangming*, the large intestine channel	foot *yangming*, the stomach channel
taiyin (greater *yin*)	hand *taiyin*, the lung channel	foot *taiyin*, the spleen channel
shaoyin (lesser *yin*)	hand *shaoyin*, the heart channel	foot *shaoyin*, the kidney channel
***jueyin* (reverting *yin*)**	**hand *jueyin*, the pericardium channel**	**foot *jueyin*, the liver channel**

Sanjiao's functional relationships make it an ideal intermediary between all the interior *zangfu* systems, and its 'location' contains and diffuses their substances and activities (Larre & Rochat de la Vallee 1992). *Sanjiao*'s location within the three major cavities of the body trunk (see Table 2.1c in Chapter Two) link the *sanjiao fu* with the lung, spleen and kidney, the three *zang* governing fluid movements and *qi*-transformations in the upper, middle and lower *jiao* respectively. The *sanjiao*'s associations with the gallbladder (wood phase) and the pericardium (fire phase) help link the *sanjiao* to the liver (wood) and heart (fire).The *sanjiao*'s watercourse functions are enabled by its network of spaces and textures, and are closely connected to the *qi*-functions of the kidneys and bladder (the *yin* and *yang* of water) in particular. In the *HDNJ Lingshu*, Treatise 47 states that the kidney, bladder and *sanjiao* together govern the *qi* activities transforming and mobilising fluids.

Qi transformations produce clear (清 *qing*) substances and turbid (浊 *zhuo*) waste, and the *sanjiao*–bladder relationship maintains the volume and quality of body fluids. The *sanjiao* drains turbid fluids into the bladder; the bladder's *qi* transformations excrete excess fluids and waste and recover clear and other usable fluids and *qi*; and the *sanjiao* 'recycles' clear *qi* and fluids back up through the body (Clavey 2003, p. 11). Kidney *qi* transformations guide and cooperate with the bladder and *sanjiao* to manage the body fluids. The kidney *yin* receives fluids in the lower *jiao* and the kidney *yang* steams or vaporises them to separate clear and turbid. The kidney *qi* controls the opening and closing of the lower orifices (the urethra and anus) to retain clear fluids and discharge waste. The examples in the next section show how these relationships and dynamics are applied to diagnostic reasoning and treatment strategies.

Although *sanjiao* is a *fu* system dealing with the movement of *qi* and fluids and the excretion of waste, some CM texts acknowledge the significant role *sanjiao* plays in the *Nanjing*'s 'source theory'. (For more on source theory, see Chapters Two, Three and Six of this thesis.) In TCM, the source *qi* moves through the *sanjiao* to disseminate the influence of the essence stored in the kidneys. CM's conceptions of the source of life are derived from sections of the *Lingshu*, and in the *Nanjing*, emphasis is given to the functions of the *sanjiao* and the heart ruler (*xinzhu*). However, *sanjiao*'s connection to the 'source' is another aspect of the body interior that is rarely discussed in English-language TCM texts.

Early conceptions of the source are connected to an on-going discussion in the Chinese medical and cultivating life (养生 *yangsheng*) literature concerning 'no form' (无形 *wuxing*). With regard to early CM's source theory, Matsumoto and Birch (1988, pp. 59, 140) argue that 'no form' refers 'to the essential change of state between matter and energy'. They note that the etymology of *jiao* 焦 includes a phoenix (the upper part of the character) rising from the flames of a fire (the four dots of the lower part of the character) — an image representing death, rebirth and transformation. Early *Nanjing* scholars comment that in Issue 31, *jiao* 焦 'stands for *yuan* 元 (origin)' (Unschuld 1986, p. 348), and Matsumoto and Birch suggest that the best translation for 焦 *jiao* 'would refer to the body's essential capability of transformation'.

The concept of 理 *li*-principle incorporated the macrocosmic level of 'universal principle' (道 *dao*) with microcosmic manifestations, in this case, the body's network of spaces and textures. From the Song (960–1278), 理 *li*-principle was like a 'four-dimensional pattern' according to which things were brought from potentiality to actuality. The *sanjiao*'s 'no form', and its *couli* and *gaohuang* as a networked system of patterned spaces and textures, therefore link the living body with 'the source': it fascilitates the changes of state between the *dao*'s principles and propensities, which have no form (无形 *wuxing*) and material structures, which do have form (有形 *youxing*). ('Above the form' (道 *dao*) and 'below the form' (器 *qi*) aspects of reality were discussed in Chapter Three's section on the *Book of Changes.*)

In the *Nanjing*, Issue Eight identifies the source as the 'moving *qi*' (动气 *dongqi*) between the kidneys. The moving *qi* is an equivalent term for the lifegate (命门 *mingmen*): the lifegate is the origin of the *sanjiao*, the twelve main channels, and the 'vital *qi*' (生气 *shengqi*) that is essential for *zangfu* processes and all movement in the body. Thus, in Issue Eight the moving *qi* constitutes 'a person's root and foundation. Once the root is cut, the stalk and the leaves wither' (Matsumoto & Birch 1988, p. 173; Unschuld 1986, p. 130).

According to Li Shizhen (李時珍 1518–1593), *sanjiao* is the 'function' of the lifegate, because it is the means by which the lifegate *qi* warms the *couli* and envelops the

body (Chace & Zhang 1997, p. 163; Matsumoto & Birch 1988, p. 114). The *sanjiao* arises from the lifegate and spreads out through the body. In the upper *jiao sanjiao* is represented by its *yin* fire partner the heart ruler (pericardium). Their association represents the pathway between the heart–*shen* in the upper *jiao* and the lifegate between the two kidneys in the lower *jiao*. The next chapter will examine these dynamics in more detail.

In this chapter the remainder of the discussion will question how premodern conceptions of the *sanjiao* relate to clinical practice. How do these early concepts (regarding the source, no form), and *sanjiao*'s physiological features (with respect to the body's warmth, its source *qi*, interior and exterior, cavities, spaces and textures) translate to medical diagnoses and therapeutic practices?

Disorder and therapy

To effectively employ Chinese medical strategies, clinicians need an intelligible image of the medical body and its *qi* dynamics. *Juan* 105 of the Han Dynasty's *Records of the Historian* (史记 *Shiji*, *c*. 100 BCE), records the memoirs of the legendary physician, Bian Que (扁鹊 *c*. 500 BCE). Although its mention of *sanjiao* may be a later interpolation (Hsu 2001c, pp. 54-55), *Juan* 105 contains one of the earliest explanations of the penetration of the body by external environmental evils.

Bian Que explains that the *couli* are the first layer of the body to be affected by externally contracted illnesses, and recommends appropriate treatments according to the depth of the disease.

> When a disease is located in the [*couli*], it can be reached with soups and decoctions (汤 *tang*), and with hot baths and compresses (熨 *yun*). When it is located in the blood vessels, it can be reached by needles and [pointed] stones (translated in Lo 2000, p. 43; and Unschuld 2005, p. 93).

The common cold is an example of an external evil 'invading' the body surface. The first stage of an 'external attack' results in obstruction of *qi* at the surface causing body aches and pains. The 'external cold damage' pattern is accompanied by aversion to cold, and by chills and fever without sweating. Although the cold damage pattern produces fever, there is no sweating because the nature or quality

of cold–evil *qi* contracts the skin spaces (the *couli*) and closes the pores. If the body surface is invaded by wind–evil, signs and symptoms include aversion to wind and draughts, with 'wandering' aches and pains. 'Wind' has a mobile, dispersing nature that opens and loosens the *couli*, so as wind penetrates the body surface this type of disruption causes chills and fever, with sweating.

To further illustrate the traditional perspective, I refer to the *Treatise On Cold Damage* (originally *c*. 200 CE) where Zhang Zhongjing established general principles for treating the many patterns and transformations of external damage. His analysis addressed the nature of the evil *qi* and its interaction with the body *qi*. In Clauses 35 and 12 we find principles for the treatment of external cold and wind evil patterns at the level of the *taiyang*, the body surface (see Table 5.3 above).

Zhang Zhongjing's principles of treatment respond to the pattern or manifestation type, and link the pattern to a representative formula. For instance, in cases of external 'cold damage', where cold evil attacks the body surface causing cough or oedema with aversion to cold and absence of sweating, Zhang recommends Ephedra Decoction (麻黄汤 *Ma Huang Tang*). *Ma Huang Tang* causes sweating to vent the exterior: sweating opens the pores and the *couli* at the level of the skin to dispel the cold–evil. For external 'wind strike', where manifestations include sweating and aversion to wind, Cinnamon Twig Decoction (桂枝汤 *Gui Zhi Tang*) is given to resolve the exterior by regulating and harmonising the construction and defense (营卫 *yingwei*) *qi* at the surface (Mitchell, Feng & Wiseman 1999; Young & Marchment 2009).

The next stage inwards, just beneath the *taiyang*, is the *shaoyang*, the 'hinge' between the outside and inside. At this level or stage the disruption is neither exterior nor interior and Zhang cautions that, if the evil *qi* has entered *shaoyang*, sweating to release the body exterior must be avoided. The appropriate strategy is to harmonise and resolve the *shaoyang*. The idea is to strengthen the *qi* in the *couli* so that evil *qi* will be unable to penetrate the interior. According to the *Treatise On Cold Damage*, *shaoyang* disorder may occur five or six days after the initial cold damage or wind strike. Its identifying pattern of manifestations will include alternating fever and chills, vexation and nausea, a bitter taste, fullness in the chest and ribs. The governing formula in such cases is Minor Buplerum

Decoction (小柴胡汤 *Xiao Chaihu Tang*) (Mitchell, Feng & Wiseman 1999; Young & Marchment 2009).

Chaihu (bupleurum) is frequently recommended for *shaoyang* patterns. In the context of externally induced *shaoyang* disorders, the appropriate dosage and placement of *chaihu* within a formula structure 'harmonises' the *shaoyang.* In the context of internal disorders, the appropriate dosage and placement of *chaihu* within a formula will course the liver to resolve constraint. Materia medica texts document how *chaihu* interacts with the medical body: it enters the *sanjiao*, pericardium, liver and gallbladder; its warming nature, and its acrid and bitter flavours lift and mobilise the *qi*, outthrust pathogens to resolve the exterior, harmonise the *shaoyang*, disperse interior constraint and drain dampness (Mitchell, Feng & Wiseman 1999, p. 403ff; Unschuld 2005, p. 295; Xu & Wang 2002, p. 51).

In his original text, *Cold Damage and Miscellaneous Disorders* (*Shanghan Zabing Lun c.* 200 CE), Zhang Zhongjing's analysis covers internal as well as external diseases. He extends the information given in the *HDNJ* by identifying manifestation clusters or patterns and developing herbal formulas that match the patterns' mechanisms of disorder. According to the Han (206 BCE–220 CE) medical classics, the body fluids circulate in the cavities and spaces. Body fluids are a medium for carrying the *qi* and for discharging waste materials via sweating and urination.

Zhang Zhongjing's clinical analysis notes that, where the fluids circulate their disorders take place. *Sanjiao*'s watercourse function helps maintain and regulate fluids and body temperature. To do this it cooperates externally with the *couli* at the level of the skin and flesh by sweating, and internally it cooperates with the bladder's excretory function. Zhang explains the clinical significance of the *sanjiao*'s management of *qi* and fluids in the body's interior and at the surface. As he puts it,

> When symptoms of dysuria and loose stools [from internal dampness obstruction] are observed, diuretics [to promote urination] should be prescribed. …
> When wind–dampness becomes lodged in the body surface the patient will suffer from general body aches. Correct therapy is to disperse pathogenic [wind and dampness] with [mild sweating] (Zhang 2007 (originally *c*. 200 CE), pp. 19, 21).

Because sweating and urination are the means by which excess fluids are normally excreted, Zhang utilises both to resolve dampness (untransformed fluids) patterns. Prescriptions to promote sweating dispel evil *qi* at the body surface, while prescriptions to drain internal dampness use substances known to promote urination.

Dampness resolving formulas often include substances that warm and strengthen depleted *yangqi* to transform and mobilise fluids in the interior. Depleted spleen and kidney *yangqi* patterns are frequently to blame for untransformed fluids, however senior physicians remind us to always rely on pattern identification. For example, even though the liver *yangqi* tends towards hyperactivity, it too can become depleted leading to dampness accumulations. Thus in some cases, oedema and ascites may be associated with a depleted liver *yang* causing a failure of its function of draining and dredging (疏泄 *shuxie*) the *shaoyang* network (Long 2003, p. 17). The liver's role in managing physiological fire (*yangqi*) will be discussed in more detail in the minister fire section of the next chapter.

CM's physiological concepts and relationships are mapped on the body surface by the main channel pathways and acupoints, and treatments are applied to the channels and points to regulate and adjust *qi*-influences. The following five examples illustrate this principle. First, the *Lingshu* Treatise Eighteen's description of channel circulation explains how acupuncture points on the lung and large intestine channels 'vent the exterior' in cases of external attack. The lungs and large intestine govern the skin and fine body hair, their channels transport clear *qi* and fluids from the interior out to the body surface. Points on the lung and large intestine channels expel exogenous wind evils from the body surface by promoting the lung's dispersing function. ST36 (足三里 *zusanli*) on the foot *yangming* channel promotes the formation of *qi* and blood, and strengthens correct *qi* (正气). When the *couli* at the surface are filled with correct *qi* and clear fluids the body is able to resist pathogenic influences.

Second, the acupoint SJ5 (外关 *waiguan*) on the *sanjiao* channel just above the wrist, is the 'outer gate' of the city walls. As the connecting point of the *sanjiao* channel and the confluent point of the *yang* linking vessel (阳维脉 *yangwei mai*), SJ5-*waiguan* protects the *yang* and the body surface, and is recommended for the *shaoyang* level of an 'external attack'. Third, on the pericardium channel, PC6 (内

关 *neiguan*) is the 'inner gate' of the walls enclosing the emperor's palace (the heart). PC6-*neiguan* is located on the inner side of the wrist directly opposite SJ5-*waiguan*. As the connecting point of the pericardium channel and the confluent point of the *yin* linking vessel (阴维脉 *yinwei mai*), PC6-*neiguan* protects the heart and the *yin* interior.

Fourth, the lower uniting points (下合穴 *xia he xue*) for the *sanjiao* and bladder (BL39, 委阳 *weiyang* and BL40, 委中 *weizhong*) lie next to one another in the crease at the back of both knees. Needling BL39 and / or BL40 regulates fluid transformations in the lower *jiao* and drains dampness by benefitting urination. Fifth, on the lower back and 1.5 anatomical inches bi-lateral to the intervertebral space between the second and third lumbar vertebrae lie the kidney *shu*-transport points (BL23, 肾俞 *shenshu*), and, GV4 (命门 *mingmen*) lies on the midline of the back, exactly between the two kidney points (BL23). And finally, just above BL23 and bi-lateral to the first and second lumbar vertebral joint are the *sanjiao*'s *shu*-transport points (BL22, 三焦俞 *sanjiao shu*). *Sanjiao* arises from the lifegate–kidney area to transport the source *qi* influences of the lifegate's moving *qi* and the essence stored in the kidneys.

The clinical assessment of the Chinese medical body uses observation of surface manifestations, and these include information gathered via palpation. The clinician palpates the points and channels to feel the tone of the tissue structures, and the junctions, clefts and spaces between them. If the patient feels discomfort or pain when the clinician palpates a point (such as BL23 or BL22 for example), dysfunction in the relevant system (the kidneys or *sanjiao*) is indicated. Tactile examination can detect further diagnostic details — areas of warmth / cold, weakness / tension, dampness / dryness, accumulations / depletions — that reflect the nature of dysfunction.

Successful treatments depend on correctly identifying the location and the nature of disorder. In cases of external damage, the body exterior must be released or vented: relevant strategies and prescriptions take into account the nature of the disruption (wind, cold, dampness, dryness or heat). In cases of internal disorder the clinician must resolve pathogenic *qi* and harmonise correct *qi*-functions. For example, a pattern of liver *yangqi* depletion can result in oedema or ascites; and a pattern of liver *yangqi* repletion, a kind of internal pathogenic fire, is able to spread

through all areas of the body via the *sanjiao*. The liver fire pattern is observable on the body surface, and especially the upper body because heat rises and effuses outwards — the skin, eyes and complexion will be flushed with heat; elsewhere, liver fire can manifest with dysuria, thirst, nausea, convulsions, mania and insomnia (Chace & Zhang 1997).

To prevent and treat exterior and interior disorder, the clinician's understanding of the body's *qi* dynamics must include the nature of the *sanjiao*, its network of spaces, cavities and textures, and their role in *qi*–fluid metabolism. To illustrate the implications for clinical practice I have included a few of the strategies developed by Zhang Zhongjing: diaphoresis (therapeutic sweating) expels damp-evil and cold-evil obstructing the body surface; harmonisation (of the *shaoyang*) strengthens the correct *qi* to resolve and protect the body surface; diuresis (promoting urination) drains the internal accumulation of untransformed fluids. Therapeutic methods match the nature and location of disordered *qi* patterns. Because exterior and upper body dampness lodges in the *couli* of the skin, muscles and joints, sweating is the more efficient method, while internal and lower body dampness is more effectively treated by promoting urination.

Summary

CM professionals, educators and students today may well conclude that traditional concepts should make way for biomedical revisions. After all, it seems that some of the processual functions attributed to the Chinese medical liver can be linked with biomedical physiology, and that the *sanjiao*'s lack of form may in fact be related to anatomical structures. Even the channels and acupoints may yet be equated with physical substrates as contemporary researchers turn to the fascial system and to the body fluids within the interstitial and intercellular spaces to investigate the acupuncture mechanism (Fei et al. 1998; Ho & Knight 1998; Ifrim-Chen & Ifrim 2005; Ma et al. 2003; Orr 2001; Shang 2007; Zhang et al. 2008).

Nevertheless, even though the Chinese medical body's viscera, bowels, substances and channels are not immaterial or idealised *qi* constructs, they are not anatomical (Farquhar 1990-1991). The pragmatic nature of CM's diagnostic frameworks and therapeutic methods rests instead on the terms and concepts used to represent and analyse the body's *qi* patterns and manifestations. For

traditional CM the living body's clinical reality lies in detectable patterns of manifestations and process events, and the subjective experience of (dis)comfort and (dis)ease.

Aspects of the liver *zang* and *sanjiao fu* discussed in these last two chapters, demonstrate the kinds of conceptual, language and transmission issues that can either support or dismantle traditional medical onto–epistemics. From the discussion so far it is clear that even a basic familiarity with the terms in Chinese can connect pieces of functional and ontological information to the history of concepts and theorising in the Chinese medical archive. Recent moves towards source-based translation standards (Wiseman 1998, 2001, 2008; Wiseman & Feng 1998, 2002) can more accurately convey the specificity of Chinese medical terminology, and assist English speakers to make some of those connections.

The term *couli* for example connects Chinese constructs of the human body to the onto–epistemics of its early medical classics, the later premodern texts and through to the case records of contemporary senior Chinese physicians. Rather than a non-physical aggregate of *zangfu* functions in the body trunk, the *sanjiao* can be envisaged as a systemic network that envelops the internal organ systems and the body itself. Once *sanjiao* is identified as a network extending in all directions throughout the body, the therapeutic applications of classical conceptions become more intelligible.

CM's functional language is the pivot between clinical manifestations and therapeutic response. Diagnostic terms encapsulate in one direction the disordered *qi* patterns of the affected areas or systems, and in the other direction the language of therapeutic strategies. Therapeutic strategies in turn guide the selection of appropriate acupoints and medicinals. The Chinese material medica are categorised according to functions such as 'venting the exterior*'*, 'harmonising *shaoyang'*, 'clearing heat', 'transforming dampness', 'disinhibiting fluids' and 'strengthening the *yang';* and within categories, substances are further differentiated according to which body systems and areas they 'enter'.

Sanjiao's cavities, spaces and textures serve as pathways for the body fluids. The *sanjiao*'s watercourse function moistens and nourishes the *zangfu* and their tissues, regulates body fluids and temperature by sweating and urination, and maintains the balance of *yin* and *yang*. The *qi* of the *zang* and *fu* circulate here as

well and according to the *li*-textures of their associated tissues and areas of influence. Internal *zangfu* substances and influences are transported by *sanjiao* to the level of the *couli* at the surface, linking internal structures and *qi*-influences with the body exterior. The *couli* and membranous structures are also the route by which external *qi*-influences, including external therapeutic influences, can affect the entire body, including its interior dynamics. Scientific research has identified these whole body networks and their influences with a liquid crystalline continuum that they describe as a kind of body consciousness.

Sanjiao's unique lack of form is the means by which the sixth *fu* contains, mediates and diffuses much of the body's *qi* and fluid physiology. Its organ–channel relationships and functions integrate and maintain the body's interior and surface environment. The *sanjiao* enables the ascending and descending movement of *qi* and fluids, and their movement between the interior and exterior — the floating and sinking, *yang* and *yin* movement, between the body interior and exterior, and between the prenatal source and its postnatal life activities. Traditional conceptions also emphasise *sanjiao*'s origin deep within the body: it arises from the lifegate between the two kidneys, from where it distributes the source *qi* throughout the body. During the Qing dynasty (1616–1911) the dissemination of source *qi* from the lifegate and its movement through *sanjiao* became associated with another entity unique to CM and the subject of the next chapter, the minister fire.

Chapter Six:

Emotions and Desires

In ancient and premodern China, emotions and desires constituted a threat to one's self. In the fifth century BCE, the *Classic of the Way and Virtue* (道德经 *Daode Jing*, attributed to Laozi 老子, dates unknown) had cautioned against the danger of desires: they tended to lead to extremes and to be interminable. Confucian philosophers such as Xunzi (荀子 *c*. 312–230 BCE) considered that, although the heart-mind (心 *xin*) coordinated and interpreted sensory perceptions, it was the senses themselves that desired sounds, appearances, tastes, smells and comforts (Geaney 2002). The sense officials and their offices (the eyes, ears, nose, mouth, body, and mind) were the 'six catalysts of desire' (Fruehauf 2006, p. 7).

Each of the senses was prone to partiality, fascination and captivation by their own pleasures, and thereby 'to subject the body to domination by external objects' (Lewis 2006, p. 6). Correct functioning of the sovereign heart- mind was endangered by yielding to their desire for the sensual stimulation of external objects. If such desires were indulged, the person became distracted and obsessed, their senses dimmed and obstructed, and their perceptions distorted and inaccurate (Qu & Garvey 2009a).

Not only could desires endanger one's self and the responsibilities of the heart-mind. Whenever the heart-mind was distracted, obstructed or unstable, its governance, thinking and influences were affected. Sudden, extreme or prolonged emotional stress for example could destabilise the heart-mind; its perceptions could be obstructed for example by darkness, distance, alcohol or hunger; the heart-mind could be distracted 'when principle is treated lightly, when external things are valued, when behaviour departs from principle, and when the body is threatened'. Because early Chinese conceptions considered the heart-mind 'the source of both emoting and thinking', one's person was not divided by separate capacities for reasoning and emotion (Geaney 2002, pp. 36, 12).

Sensory perceptions were directly associated with the emotions, and *HDNJ* texts such as *Suwen* Treatise 39 observed how the seven emotions (七情 *qiqing*) affected the *qi*. For example, emotional responses could cause the *qi* to ascend (anger) or to descend (fear); they could relax and slow the *qi* (joy), or consume the *qi* (sadness). Consequently, CM linked 'excess' emotions with disorderly *qi* movement, stagnation, dysfunction and illness: emotions were 'internal' illness causing factors that could damage the body interior. In fact, sustained or habitual desires and emotional patterns could injure the *zang* visceral systems directly. (For five phase associations linking the emotions and the *zang* see Chapter Seven's Table 7.1.)

China's ancient texts recorded that the heart-mind was easily stirred by emotional influences and sensual desires, and their pathogenic potential figured prominently in its premodern conceptions of illness. The *HDNJ* (*c*. 100 BCE) texts adopted the concerns expressed by Warring States (475–221 BCE) thinkers regarding the tension between the heart-mind and sensual pleasures. Its sociopolitical image of the body as empire or state represented the heart–spirit / mind (心神 *xinshen*) as the body's sovereign ruler, and the senses (官 *guan*) as his administrative officials.

To prevent interior damage and cultivate longevity, the *HDNJ* recommended the cultivation of an even temperament. The scholar physicians from the Song to the end of the Qing (960–1911) took up this area of the ancient classics and further developed CM's response to the pathogenic effects of emotions and desires. From the Song, excess emotions were observed to transform into internal pathogenic fire: heart fire harasses the heart–*shen* causing agitation and insomnia; the fire of the angry liver ascends and disrupts the liver–sentient soul (魂 *hun*) and heart–spirit / mind (神 *shen*) relationship; the fire of sensual and sexual desires turns the sexual and reproductive *qi* of the kidney *yang* and lifegate fire into disorderly and self destructive forces. 'As a moral psychology of emotions, this was not a dualism of reason and passion but a complex mode of embodiment' (Furth 1999, p. 149).

Western medical anthropologists and social scientists today recognise that emotions are an important link that bridged not only the mind and body, but the individual and society. In 1987, Nancy Schepper-Huges and Margaret Lock showed how emotions entail personal feelings and cognitive orientations as well as public morality and cultural ideology. They proposed that emotions affect not only

our subjective experience of illness and pain, but also the imaging of 'the well or poorly functioning social body and body politic' (1987, p. 28). CM's notions of *qi* presuppose the same kind of connections, especially the connectedness between the living body's physicality and its mental–emotional activities, and with its sociocultural and environmental influences.

This chapter will examine CM's perspective concerning the potentially disruptive influence of emotional responses and sensual desires, and the interpretation of these ideas for medical practice. The chapter's discussion of physiological fire, and the *qi* systems that produce and manage it, will help integrate CM's perspective of the living body begun in the previous chapters with its investigation of 'the mind' in the next. The discussion will demonstrate that the mental- and emotion-related illnesses raised here and in the next chapter are not psychological disorders in the Western sense, but functional or *qi* disorders in CM.

CM's five phase association of anger with the liver *zang* for example, signals that continued angry responses over time cause the liver to lose its ability to course and discharge smoothly, and its *qi* becomes stagnant. Stagnant liver *qi* has far-reaching physiological effects (see Chapter Four), it further predisposes the person towards angry responses, and prolonged anger injures the liver *zang*. Stagnant liver *qi* was observed to transform into fire, and the physical manifestations of the liver fire pattern are the same as those for feelings of anger — red face and eyes, shouting voice, a bounding forceful pulse.

Physiological fire

From the Chinese medical perspective, the experience of an illness that was related to a person's emotions and desires was always entwined with their bodily experience (Kuriyama 1993, p. 58). To continue the liver / anger example: pathogenic liver fire from habitual or sustained angry responses injures the liver *zang*, its *qi* influences and associations, and can travel to the *sanjiao*. From there it can disrupt almost any area or function of the body, which explains why liver fire manifestation clusters can be so diverse. They can include for instance, muscular tension, vertex headache, sore red eyes, a flushed complexion, agitation and irascibility, convulsions, mania, insomnia, dysuria, sores and ulcerations, constipation, hunger, thirst, nausea and vomiting (Chace & Zhang 1997, p. 36).

Perhaps more than any other form of *qi*-influence, CM's notions of physiological fire mediate between a person's mental–emotional life and the *qi* processes producing and maintaining the body form. For example, the so-called 'sovereign' and 'minister' fires, which are quiet and tranquil before sexual intercourse, 'begin to stir' when the sexual urge is felt (Fu 1996 (originally, 1826), p. 26). Desire activates the minister fire and the *jing*-essence in the lower *jiao*, and minister fire activates the sexual–reproductive role of the liver and kidneys to ensure the continuation of life (Rossi 2007b, p. 89).

The minister fire and sovereign fire are 'mild' or physiological fire. Together, they strengthen one another, warm the *zangfu* and power the body's life activities (Mitchell, Feng & Wiseman 1999, p. 407). In the Chinese, 相 *xiang* refers to a minister in the emperor's court (Goodman 2009a, p. 17), and the term characterises minister fire's (相火 *xianghuo*) relationship with the heart, with the heart's sovereign fire (君火 *junhuo*), and with the heart's role in lodging the spirit / mind (神 *shen*).

The concept of minister fire (相火 *xianghuo*) first appeared in Wang Bing's (王冰 *c.* 710–805) version of the *HDNJ Suwen*. Although minister fire received a lot of attention from the Tang dynasty onwards (from 618) it is rarely mentioned in TCM textbooks, except sometimes as a pathogenic influence. Depending on the specific case, the 'stirring of minister fire' can account for insomnia, irritability, frequent erection, ringing in the ears or blurred vision, but contemporary clinicians are more likely to interpret these manifestations as a 'hyperactivity of liver *yang*' or 'liver fire' pattern.

CM's premodern notions concerning minister fire are not evident in contemporary TCM textbooks, and the preferred term for physiological fire today is '*yangqi*' (阳气). The occasional mention of minister fire's various representations in English-language sources are difficult to reconcile for today's TCM students and practitioners. For instance, while sovereign fire is clearly a locational and qualitative descriptor for the heart's physiological fire, minister fire has been linked to or identified with the lifegate, kidney, *sanjiao*, liver, gallbladder, pericardium, stomach, spleen, pancreas and sexual potency, depending on the author and context.

The timeline in Table 6.1 summarises minister fire's various historical representations. Wang Bing's version of the *HDNJ* (762) defined minister fire as the heart–kidney and *sanjiao*–gallbladder channels (the *shaoyin* and *shaoyang*).The *Nanjing* (*c*. 100 CE) commentaries linked it with the heart ruler–liver and *sanjiao*–gallbladder channels (the *jueyin* and *shaoyang*). Zhu Danxi (朱丹溪 1280–1358) identified minister fire with lifegate fire, and said that minister fire is stored in the kidneys and liver and connected it to the heart. According to Li Shizhen's *The Great Pharmacopeia* (本草綱目 *Bencao Gangmu*, 1578), minister fire inhabits the liver and gallbladder. Zhang Jiebin (張介賓 1563–1640) identified it with the kidney, liver, *sanjiao*, gallbladder and pericardium. Twentieth century authors identify it with the lifegate, liver, gallbladder and *sanjiao* (Chace & Zhang 1997, pp. 64, 88; Ou 1988; Schnyer & Allen 2001; Zhu 1994 (originally 1347), p. 112).

Table 6.1: Timeline for minister fire associations

Nan jing	***SHL***	**Wang Bing**	**Zhu Danxi**	**Li Shi zhen**	**Zhang Jiebin**	**TCM**
(after) 100 CE	(after) 200 CE	762	1347	1578	1624	1960s –
shao yang (*sanjiao* –gall bladder), and *jueyin* (heart ruler– liver) channel	*shao yang* life gate, liver	*shao yin* (heart–kidney) and *shao yang*	lifegate fire (stored in kidneys and liver, connected to the heart)	liver and gall bladder (the *yin* and *yang* of wood)	kidney, liver, gall bladder, *sanjiao*, pericardium	life gate, liver, gall bladder, *sanjiao*, kidney *yang*

TCM has reconciled minister fire's various representations by reassigning its physiological contributions to the kidney *yang*, and identifying its pathogenic influences with liver and gallbladder *yang* repletion patterns. To restore CM's traditional representations of minister fire, the remainder of the chapter will examine the associations listed in Table 6.1 to contextualise these changes, starting with the pericardium and the lifegate in the next section. The pericardium

and lifegate have also been de-emphasised in today's TCM textbooks, and premodern texts link them both with the minister fire. Their relationship parallels the heart–kidney (*shaoyin*) axis supporting the executive expression of physiological fire in the upper *jiao* (sovereign fire) that both guides and arises from the kidney–lifegate fire in the lower *jiao* (minister fire). To explore these aspects of physiological fire, the chapter will revisit some of the literature and associations presented in previous chapters.

The minister fire itself will be the subject of the third section of this chapter. In contemporary texts, the minister fire's physiological role is very similar to that of the kidney *yang*, the basis of the whole body's *yangqi* functions that power the activities of the internal visceral systems (the *zangfu*). According to influential Western authors such as Bob Flaws (2003), Peter Deadman (1995), Nigel Wiseman and Feng Ye (1998), minister fire is basically indissociable from the kidney *yang*. Today, its association with the liver *yang* is represented only in terms of pathogenic repletion patterns such as the 'liver fire' pattern above. Early sources however suggest that minister fire is a distinct system of *qi*-influences and this chapter's fourth section will explore the relevance of minister fire for the Chinese medical body and its place in clinical practice.

Because historical developments help to contextualise TCM's interpretation of premodern sources, the review of the premodern literature for the minister fire, lifegate and pericardium will itemise some of the developments in classic texts starting with the Han dynasty classics, the *HDNJ* (*c*. 100 BCE), *Nanjing* (*c*. 100 CE) and the *Treatise On Cold Damage* (*c*. 200 CE). Many of the notions concerning minister fire such as its associations with the liver and *shaoyang* were refined and extended during the Song–Jin–Yuan Dynasties (960–1368) (Long 2003). In the Song, desire's longstanding reputation for depleting the *qi* was extended to incorporate its newfound role in pathogenic *yang* fire; while Ming (1368–1662) and Qing (1662–1911) scholar physicians refined the classic aetiology of depletion in terms of depleted lifegate fire (Kuriyama 1993, p. 57).

The pericardium and lifegate

None of the Han medical classics refer to the ‘pericardium’, or to the hand reverting *yin* (手厥阴 *shou jueyin*) channel — today’s pericardium channel. The majority of Han dynasty texts mention only five *zang* and six *fu* and the *sanjiao* has no *yin* visceral counterpart. One exceptional treatise however, the *HDNJ Suwen* Treatise Eight, does describe twelve palace officials (官 *guan*). In Treatise Eight, the liver is likened to the office of a learned general who excels, and the *sanjiao* to the water administration official. In TCM textbooks, Treatise Eight’s *guan*-palace officials are the visceral systems (脏腑 *zangfu*). But the *Suwen* Treatise Eight’s twelfth official is not a physical organ and nor is it the pericardium or lifegate: it is the ‘chest centre’ (膻中 *danzhong*).

The *Suwen* Treatise Eight says that the chest centre holds the office of ‘ambassador’ and is the official envoy responsible for happiness and joy. The chest centre acts like a servant or envoy serving in the sovereign's inner chambers: it connects to the heart and lungs; it facilitates communication and disseminates the heart–sovereign’s commands; and happiness issues from it (Chiu 1986, p. 77). The *Suwen* Treatise Eight does not associate the chest centre with any of the other organ–channel systems. However its representation of the chest centre has been adopted widely in contemporary descriptions of the pericardium (for example in Hicks, Hicks & Mole 2004; Maciocia 2005; Rogers 1997; Wang & Robertson 2008). Today, 膻中 *danzhong* is the Chinese name for the acupoint CV17. Its name refers to CV17’s location on the anterior midline of the chest in the middle of the sternum.

Although the *HDNJ* texts do not mention the pericardium, the *Lingshu* Treatise 71’s discussion of the heart enclosing network (心包络 *xinbaoluo*) says it surrounds and protects the heart so that evil *qi* cannot attack the heart directly. As a medical term, ‘heart enclosing network’ indicates a dual function of enclosing and protecting (包 *bao*) the heart as well as connecting (络 *luo*) it with the lungs and the other *zangfu*. In the *HDNJ*, the heart enclosing network is the envoy that communicates and carries out the heart’s orders (Larre & Rochat de la Vallee 1992, pp. 14, 16).

As the envoy of the heart, the role of the heart enclosing network sounds similar to the chest centre (膻中) and to the minister (相 *xiang*) who transmits the emperor's orders. The *Lingshu* Treatise Ten and the *Nanjing* Issue 25, paired the heart enclosing network with the *sanjiao*, the envoy distributing source *qi* from the lifegate (命门 *mingmen*); and in the *Pulse Canon* (脉经 *Maijing*) Wang Shuhe (王叔和 *c.*180–270) paired the *sanjiao* with the lifegate (命门 *mingmen*). In both cases, the *sanjiao* presided over the movement of minister fire, and the external–internal (表里 *biaoli*) pair (the *sanjiao* paired with the heart enclosing network or lifegate) represented the minister fire (Clavey 2003, p. 35; Larre & Rochat de la Vallee 1992, p. 125).

The *Suwen* Treatise 56 introduced the 'heart ruler' (心主 *xinzhu*) — a term that is similar in meaning to the heart enclosing network insofar as it refers to an entity through which the heart rules (Goodman 2009b, p. 63). In the *Lingshu* Treatise 35, the chest centre is the 'palace' of the heart ruler (心主之宫城 *xinzhu zhi gongcheng*) (Ellis, Wiseman & Boss 1989, pp. 319-320). In the *Nanjing* the heart ruler is a branch of the heart channel, and Issues 25 and 38 pair it with the *sanjiao*, yet another external–internal pair.

Even though the *Nanjing* (*c.* 100 CE), Issues 25 and 38 say that both the *sanjiao* and heart ruler have 'a name but no form', the heart ruler and the heart enclosing network were relabelled 'pericardium' (心包 *xinbao*) from the Qing dynasty (1616–1911). Perhaps the reassessment was instigated by contemporaneous physical evidence. In 1575, Li Chan (李梴) had identified the anatomical pericardium, the thin membranous sac surrounding the heart, as the physical substrate for the heart enclosing network (Sivin 1987, p. 128). To distinguish between early conceptions and their later anatomical re-badging, I will use 'heart protector' below for references to the premodern heart ruler and heart enclosing network.

The heart protector–pericardium's link with minister fire first occurs in the *HDNJ Suwen*. The *HDNJ*'s five phase (五行 *wuxing*) model and its six-fold concepts such as the six channels (六经 *liujing*) and six *qi* and (六气 *liuqi*) were originally independent frameworks. To reconcile them, CM historians note that 'ad hoc modifications' (Agren 1986, p. 214) were introduced by later commentators. It is difficult to ascertain from English-language materials when and why these changes

took place, and the discussion will return to this question in the next section. But at some point after the Han, medical theorists added a sixth *yin–yang* pair of systems to the five phase framework.

In Wang Bing's version of the *HDNJ* (762), the pair was added to the fire phase, and the fire phase thereby incorporated both sovereign and minister fires. The heart was associated with sovereign fire, and the five phase model in TCM today has two *yin–yang* pairs for the fire phase: the heart (心 *xin*) and the pericardium (心包 *xinbao*) are the *yin* fire systems; their *yang* partner systems are the small intestine and *sanjiao* (三焦). Table 6.2 summarises the 'fire split' that integrated the five phase and six channel models, and the *sanjiao*'s physiological fire associations so far.

Table 6.2: The five phases and twelve channels, and *sanjiao* associations

	wood	**fire**	**earth**	**metal**	**water**
yin	liver	heart, sovereign fire; **pericardium, heart enclosing network, lifegate, heart ruler, minister fire**	spleen	lung	kidney
yang	gall bladder	small intestine; ***sanjiao*, minister fire**	stomach	large intestine	bladder

Given the above it is no surprise that the contemporary Chinese medical literature remains ambivalent about the heart protector–pericardium. According to Judith Farquhar (1994, p. 93), the pairing of the pericardium with the *sanjiao* 'is more for numerical symmetry' than because of the pericardium's physiological significance, and Hans Agren (1986, p. 214) has pointed out that the Qing dynasty's (1644–1911) substitution of 'pericardium' for the premodern heart protector is anachronistic and inaccurate. The *Lingshu* Treatises Ten and 71's heart enclosing network is a channel, the *Nanjing*'s heart protector (心主) was a branch of the

heart lesser *yin* (*shaoyin*) channel and had no form, and the *Suwen*'s chest centre was not the sixth *zang*.

Moreover, last century's sociopolitical changes apparently led Chinese doctors to avoid mentioning the *xinbao*-pericardium because of its classical, imperialist connotations (Anonymous 1980). Although the anatomical term 'pericardium' (心包 *xinbao*) was a recent addition to China's medical discourses, its name is very similar to the *xinbaoluo*, the *HDNJ*'s servant and envoy of the heart–sovereign. As the protector and envoy of the heart–sovereign, the pericardium was derided during the Cultural Revolution period (1966–1976) when socialist revolutionary ideology was upheld in China (Sivin 1987, p. 130).

Nevertheless, Treatise Eight's description of the twelve officials is still very influential in contemporary basic theory. Today's notions of the pericardium are based on the chest centre / heart protector's channel connections and associations rather than on their credentials as a *zang* functional system. In today's textbooks, the chest centre, heart ruler and heart enclosing network are all 'pericardium', the pericardium is the envoy in charge of happiness and joy, and the 'alarm' (募 *mu*) point for the pericardium and for general upper *jiao qi*-functions is CV17-*danzhong*.

To explore these developments and interpretations further, I now turn to the lifegate. Twentieth century senior physicians such as Qin Bowei (秦伯未 1901–1970) describe the lifegate as a 'crucial issue' in CM (Chace & Zhang 1997, p. 159). The remainder of this section will show how the source, management, movement and influence of the minister fire rely on a set of functional relationships that incorporate the lifegate, *sanjiao* and heart protector.

In the Song, Ding Deyong's (丁德用 fl. 1056–1063) commentaries on the *Nanjing* used the notion of minister fire to support the physiological relationship between the heart protector and lifegate (命门 *mingmen*). The heart protector and lifegate match the heart and kidney (*shaoyin*) axis and their original *yin–yang* influences. As envoy of the kidney–lifegate's source *qi*, the *sanjiao* matches its *yin* counterpart in the upper *jiao* — the heart protector and envoy of the sovereign fire.

The lifegate's functional role has remained fairly consistent since the *Nanjing*: it lodges the essence and spirit / mind (精神 *jingshen*), it gives rise to the source *qi*

(原气 *yuanqi*), and in women it holds the womb. Historically though, its location has been difficult to pin down. In the *Suwen* Treatise Six and *Lingshu* Treatise Five, the term 命门 *mingmen* referred to the eyes (Unschuld 1985, p. 200, 1986, p. 383). This location or entity is largely ignored today although the meaning for 命 *ming*, 'orders', 'fate', 'life', 'to name' (Tessenow & Unschuld 2008, p. 281), is still applied to contemporary English-language representations of the lifegate. The *Nanjing* gives two locations for the lifegate. One is introduced in Issues 36 and 39 where the left kidney is the kidney and the right kidney is the lifegate. The other, in Issue 66, describes the 'dynamic' or 'moving' *qi* (动气 *dongqi*) as an equivalent term for the lifegate and its source *qi*.

In the *Nanjing,* the moving *qi* is located below the navel and between the two kidneys — the location of the *Suwen*'s 'minor heart' (小心 *xiaoxin*). The *HDNJ Suwen* Treatise 52 had identified an entity called the minor heart, locating it in the centre of the body level with the second and third lumbar vertebrae. On the surface of the lower back, this location is the same as for the governing vessel acupoint known to Westerners as GV4. GV4's Chinese name is 'lifegate' (命门 *mingmen*). In Nathan Sivin's opinion (1987, p. 120), whether the lifegate is the eyes, the [minor] heart, the moving *qi*, the right kidney, or simply 'an immaterial locus of [*qi*]', has never been settled in the received literature or its twentieth century revisions.

In the *Nanjing*, the moving *qi* between the kidneys gives rise to the *sanjiao* and the channels, and constitutes the person's life destiny (生命 *shengming*). Ding Deyong associated minister fire with the right kidney–lifegate, the heart protector (心主 *xinzhu*) and the *sanjiao*. On Issue 36 however, Ding argued that '命门' (*mingmen*) is not the 'lifegate' but the 'gate of orders', and that the gate of orders is the minister fire carrying out the orders of the sovereign fire. In his commentary for Issue 38, the *sanjiao* represented minister fire; and in Issue 39 Ding matched *sanjiao* with the heart protector (心包络 *xinbaoluo*), stating that both represent minister fire (Unschuld 1986).

Some Ming dynasty (1368–1644) physicians such as Ma Shi (马莳 dates unknown) still believed the *HDNJ*'s reference to the 'minor heart' to mean the pericardium. Others such as Zhang Jiebin (张介賓 1560–1639) and Zhao Xianke (赵献可 1572–1643) believed it to be the lifegate. Zhang Jiebin, the author of the *Classified*

Classic (类经 *Leijing*, 1624) confirmed that the lifegate was the 'moving *qi*' and the origin of the source *qi* (原气 *yuanqi*), and according to Zhao Xianke, the *HDNJ*'s 'minor heart' was simply an obsolete term for the lifegate. Zhao was the author of *The Pervading Link of Medicine* (医贯 *Yi Guan*, 1617): his 'pervading link' was the lifegate fire, and Zhao considered all medical questions from this point of view (Clavey 2003, p. 527; Unschuld 1985, p. 201). He argued that the two kidneys (the water) were separated by 'formless fire', and that unlike physical fire, formless fire was created by water.

In any case, by the end of the sixteenth century, the lifegate was generally accepted as located between the left and right kidney *zang*, that is, level with the lumbar two / three area (Unschuld 1985, p. 202). Ming (1368–1644) and Qing (1616–1911) medical theorists account for a close functional relationship between the lifegate and heart protector: Ming scholar physicians defined their association by their basis in and expression of minister fire's physiological and pathogenic influences. During the Qing, minister fire became the warming influence that drove the dissemination of source *qi* from the lifegate and its movement through *sanjiao* (Fruehauf 2008). Qing scholar physicians explained *yangqi* vacuity patterns in terms of depleted minister fire failing to warm and disseminate the lifegate's influences. Qing interpretations and developments are represented in TCM textbooks today as kidney *yang* depletion patterns. (More on physiological fire disorders in the next section.)

In summing up the lifegate's importance, Zhang Jiebin had emphasised the heart's connections with the minister fire and kidney–water: 'The lifegate is the root of *qi* and is the house of fire and water. Without it, the *yinqi* of the five viscera would fail to have its nourishing effect and the *yangqi* of the five viscera would be left unmobilized' (cited in Chace & Zhang 1997, pp. 160, 170). The *sanjiao* arises from between the two kidneys in the lower *jiao*. It provides the passageway for their source *qi* and *yin*–fluids, and for the lifegate's minister fire; and in the upper *jiao*, the *sanjiao* connects with the *qi* structures enveloping the heart, the heart protector (心包络).

In women, these same upper and lower *jiao* (heart and kidney) connections are supported by the uterine network (胞络 *baoluo*). Because the uterus is one of the extraordinary *fu*, it is governed by the kidneys (see Table 5.2 in Chapter Five), and

the *Suwen* Treatise 33 says, 'The uterine connecting network belongs to the heart and nets the uterus'. These connections ensure orderly communication between the physiological fire of the sovereign and minister, and the mixing of water and fire in the *sanjiao* allows life to develop (Larre & Rochat de la Vallee 1992, pp. 50, 58-59; Rossi 2007b, p. 87).

In TCM, the uterine network's role in regulating the menses is due to its connections with the heart and kidney *qi*-influences. Li Dongyuan (1180–1251) explained that minister fire is the fire of the lower *jiao*'s uterine network, and the uterine network connecting the kidneys and uterus also connects with the heart and upper body (Flaws 2008, p. 10). So as well as the *shaoyin* (heart–kidney) channel, the heart protector–sanjiao–lifegate association and the uterine network channels help transmit kidney *jing*-essence (water), and minister and sovereign (fire) influences between the upper and lower body.

The minister fire

In the *HDNJ*, the *Suwen* Treatise Five differentiated between pathogenic fire and physiological fire: '[s]trong fire (壮火 *zhuanghuo*) consumes *qi*, and mild fire (少火 *shaohuo*) strengthens and warms the *qi*' ([Unknown] 2005 (originally *c*. 100 BCE), p. 59). Whereas 'strong' pathogenic fire damages *yin*–fluids and disrupts *qi* processes, 'mild' physiological fire promotes *zangfu* functional activities. The minister fire was considered a mild fire: it originated from the kidney area and rather than consume or injure kidney–water, minister fire actually produced it (Maciocia 2005, p. 161; Ou 1988, p. 88; Xie 2002, p. 22).

The terms minister fire and sovereign fire appear only in passing in Treatises 66 and 68 of the *Suwen*. It is thought that Wang Bing added Treatises 66–71 and 74 to the *Suwen* when he revised the *HDNJ* in 762. The additional treatises, which may have been compiled much earlier (Tessenow & Unschuld 2008, p. 6), discussed the doctrine of the five circulatory phases and six seasonal influences (五运六气 *wuyun liuqi*) (for detailed discussions of the doctrine, see Despeux 2001; Hsu 2001a, p. 96; Lu & Needham 1980, pp. 137-149; Porkert 1979, pp. 55-106; Unschuld 2003).

To reconcile the *HDNJ*'s five-fold and six-fold models, the five phases (incorporating the sovereign and minister fires) were aligned with the six influences (六气 *liuqi*) and the six channels (六经 *liujing*), as shown in Table 6.3 (see Despeux 2001, p. 126).

Table 6.3: The five circulatory phases and six seasonal influences

6 Influences 六气	5 Phases 五行	6 Channels 六经
wind	wood	*jueyin*
fire	sovereign fire	*shaoyin*
summer heat	minister fire	*shaoyang*
dampness	earth	*taiyin*
dryness	metal	*yangming*
cold	water	*taiyang*

The five circulatory phases and six seasonal influences system were largely ignored until the Song dynasty (960–1279), when it triggered innovative medical theories regarding causation, illness and treatment of epidemics. From then on, the *wuyun liuqi* 'gradually pervaded every field of medicine: prognosis, diagnosis, prevention, pharmacotherapy, and acupuncture' (Despeux 2001, p. 121).

For Song physicians, the separation of fire into sovereign and minister fire was an important functional–physiological concept. In the *wuyun liuqi* system the kidneys were no longer associated only with water and the *shaoyin* as in the *HDNJ*'s five phase model. They were associated with both water and minister fire phases using the six channels' *taiyang* and *shaoyang* (see Table 6.4).

The Song's association of minister fire with *shaoyang* (*sanjiao* and gallbladder) agrees with Zhang Zhongjing's (張仲景 *c*. 142–220) *Treatise on Cold Damage* (originally *c*. 200 CE). Even though Zhang used the *HDNJ*'s six channels as his framework for the levels or stages of illness brought about by cold damage, he does not mention its five phase doctrine, and his six channels do not encompass

the *HDNJ*'s acupuncture channel system pathways and concepts (Agren 1975b, 1986). The *Treatise on Cold Damage* and its subsequent commentaries allocated governance of minister fire to the *shaoyang* (*sanjiao*–gallbladder), and held that minister fire inhabited the liver.

Table 6.4: The kidneys as the basis of water and fire

Water	Minister Fire
left kidney	right kidney
taiyang / bladder	*shaoyang* / *sanjiao*

Zhang Zhongjing's analysis described *shaoyang* as the hinge between the body surface and its interior. *Shaoyang* lies between the *taiyang* (bladder–small intestine), the body surface, and the *yangming* (stomach–large intestine), the deepest of the three *yang* channels. The commentaries on the 'Essential Features of [*shaoyang*] Disease' in Craig Mitchell *et al*'s (1999) translation of the *Treatise on Cold Damage* characterise minister fire as an emergent property of the lifegate, the complement of sovereign fire (heart fire), and equivalent to the kidney *yang*.

The *Treatise on Cold Damage* does not mention the chest centre, heart ruler or heart enclosing network. In contrast to the *HDNJ* and *Nanjing* texts, which are mainly concerned with acupuncture, the *Treatise on Cold Damage* is a herbal text. From the acupuncture and channel theory perspective, the 'no form', membranous heart protector–pericardium is a credible *yin* partner for the *sanjiao*. Whereas from the herbal perspective that takes more account of internal processes and transformations, the lifegate–*sanjiao* / liver–gallbladder pairings would have made more sense.

The few premodern texts in English sampled above demonstrate some of the historical variance, complexity and disagreement over the minister fire and its associations. Small wonder many contemporary authors have little to say about the minister fire (see for example Deng 1999; Hicks, Hicks & Mole 2004; Kaptchuk 2000; Kendall 2002; Ross 1994; Shi 2007; Wiseman & Ellis 1996). Those that do mention 'minister fire' and 'lifegate fire' (such as Deadman 1995; Flaws 2003;

Maciocia 2005), tend to use the two terms interchangeably, and prefer 'kidney *yang*' over both.

Having conflated the three terms (minister fire, lifegate fire and kidney *yang*), one finds differences in other parts of Deadman's, Flaws' and Maciocia's (for example) texts. The reader must keep in mind that differences in interpretation on the one hand have been influenced by TCM's simplification of terms, or on the other hand, may be dependent on their context within either the *zangfu* (organ) or five phase (channel) frameworks (Maciocia 2005, p. 167). Some authors, such as Wang Juyi and Jason Robertson (2008), prefer not to conflate the three types of physiological fire, arguing that specific terms in classical physiology represent different functional entities. For example, if we accept that lifegate fire is 'original *yang*', then once the original *yang* leaves the lifegate–kidney functional area it becomes minister fire, its postnatal envoy mobilising the *qi*-influences and substances of the internal visceral systems.

Three points will serve to sum up the previous two sections' analysis of minister fire physiology so far. First, minister fire arises from the kidney–lifegate area in the lower *jiao*, and is managed by the liver and the *shaoyang* (*sanjiao*–gallbladder). Second, minister fire is the *yang*–fire that warms and moves the source *qi* through the *sanjiao* — its network of cavities, spaces and textures that connect the body interior and exterior. Third, in the upper *jiao* minister fire is associated with the heart protector that envelopes the heart and conveys the orders, happiness and radiance of the sovereign fire.

The first point accounts for the importance of the kidney and liver *zang* relationship. The example of desire activating the sexual–reproductive role of the liver–kidney *zang* systems illustrates their governance of minister fire–*jing*-essence in the lower *jiao*. Together, the kidney and liver secure and manage the living body's inborn resources, the original *yin* and *yang* of the inherited *jing*-essence. Minister fire influences are regulated by the wood (the liver and gallbladder) and its qualities of emanation, emergence, spreading and flourishing.

The second point draws in CM's concepts of the source — the lifegate, the source *qi* and its distribution. Source *qi*, the origin of the living body's *qi* transformations, arises from the primary movement (动气 *dongqi*) of the lifegate. Minister fire's

warming and dynamic (*yangqi*) influence mobilises the constitutional influences of the essence (*yin*) that stimulate and guide all postnatal *qi* functions. The *shaoyin* (kidneys) is the origin of source *qi*, and the *shaoyang* (*sanjiao* and gallbladder) regulates the movement of source *qi* between the body surface and interior.

The minister fire thus warms and nourishes the gallbladder, and the gallbladder assists the smooth and uninhibited *qi*-functions of liver coursing and draining (*shuxie*). In this way 'minister fire warms the *couli* and envelops the entire body' (Chace & Zhang 1997, pp. 64, 163, 164; Fu 1996 (originally, 1826), p. 75). Because the *sanjiao* arises from the moving *qi* and lifegate fire between the two kidneys, the *shaoyang* (*sanjiao*–gallbladder) takes on two important characteristics for *qi* physiology: it is the intermediary between the source of life 'and the unfolding of life' (Larre & Rochat de la Vallee 1992, p. 101); and its 'pivot mechanism' administers the movement of minister fire between the body surface (*taiyang*) and the interior (*yangming*). When the gallbladder and liver are coursed and discharging normally, the minister fire moves freely. In this state, minister fire is 'unseen': it moves normally, 'warming the organs and powering activity' (Mitchell, Feng & Wiseman 1999, p. 407).

The third point is supported by CM's conceptions of the channels — their relationships connecting interior systems, the sequence of the main channel *qi* circulation, and the sequence of the five phase movement of *qi*. The distribution, movement and management of minister fire as represented by the *sanjiao*, gallbladder and liver allow contemporary acupuncture texts (such as Wang & Robertson 2008) to incorporate the *yin* partner of *sanjiao* and the hand *jueyin* channel, the pericardium. The inclusion of the pericardium completes the coat and lining channel relationships, the *shaoyang* (*sanjiao*–gallbladder) and *jueyin* (pericardium–liver) (see Diagram 5.1 in Chapter Five).

To sum up the *zangfu* perspective: minister fire is the postnatal envoy of original prenatal *yang*–fire influences of the kidney–lifegate. In CM, the kidneys store the inherited *jing*-essence from the parental ovum and sperm, and together, the kidney and lifegate embody their 'original' *yin* and *yangqi*. Original *yang* protects the original *yin*, the *yin* nourishes the *yang*, and the orderly influences of the source *qi* rely on their dynamic relationship. Lifegate fire is the postnatal form of the prenatal (original) *yangqi*; as these influences leave their source in the kidney–lifegate area they become minister fire.

From the five phase perspective: fire is associated with the heart–sovereign and its minister fire is associated with the *sanjiao* and pericardium. The 'split' that created two types of five phase fire defines the relationship between the sovereign (heart) and its executive expression in the upper *jiao* (heart protector). From that perspective the pericardium**–***sanjiao* minister fire reflects the lifegate's *qi*-influences, with its executive expression in the upper *jiao* carrying out the orders of the heart–sovereign.

Because the clinician's image of the medical body guides their approach to treatment and the selection of acu-points and medicinal substances, the next section offers an account of how contemporary students and clinicians can utilise traditional notions of minister fire to interpret disorder and treatment. It explores the ramifications of both *zangfu* and five phase perspectives for bodily function and dysfunction, physiology and pathophysiology.

Function and dysfunction

According to CM, when physiological fire is level and calm, it warms the body and powers *qi* transformations. When fire becomes agitated it becomes pathogenic: the minister fire leaves its place and floats upwards — it burns, scorches the fluids, harasses the heart, consumes the *qi* and damages the essence. Clinical manifestations may include headaches and dizziness, a bitter taste in the mouth, mental restlessness, agitation, anxiety and insomnia, a dry throat, blurring vision, tinnitus, deafness, excessive libido, frequent erection, premature ejaculation, irritability, excess dreaming, and heat in the palms, soles and chest (Flaws 2003; Fu 1996 (originally, 1826); Maciocia 2005, p. 168).

In TCM these signs and symptoms are identified with *yang* fire hyperactivity patterns. The *HDNJ*'s five phase–acupuncture perspective sees the stirring of minister fire as pathogenic heat harassing the heart protector-pericardium, while the *Treatise on Cold Damage*'s *zangfu*–herbal perspective focuses on the agitated minister fire's disruption of the liver–gallbladder and kidney–lifegate functional areas (Mitchell, Feng & Wiseman 1999, p. 407; Ou 1988, p. 88; Wang & Robertson 2008, p. 213).

Today's TCM references to minister fire are mainly derived from pathogenic heat patterns that were first described towards the end of the Song by Li Dongyuan (李東垣 1180–1251). In his *Treatise on the Spleen and Stomach* (脾胃论 *Piwei Lun*, 1249), Li described how the sovereign and minister fire became agitated, and how this disturbance caused their physiological influences to become pathogenic. The *yang* movement of emotions and desires easily generated pathogenic heart fire; the heart's envoy, the minister fire, is similarly 'stirred' and loses its root in the lower *jiao*. As pathogenic minister fire rises it accumulates in the upper *jiao*, it disturbs the heart–spirit / mind (心神 *xinshen*) and the lower *jiao* becomes depleted and cold.

The patterns of dysfunction described by Li Dongyuan involve several interior systems. He reasoned that if for example the spleen *qi* was depleted, it failed to transform fluids and the resulting dampness and heat poured downward damaging the liver, kidneys and large intestine: this situation displaced or worsened the displacement of minister fire, and caused further upward stirring. Li observed that the tranquillity of minister fire was easily disrupted in cases where the spleen was already depleted, and that the ensuing hyperactivity of minister fire further consumed spleen *qi*. Furthermore, when minister fire stirs and flares upward, it consumes the stomach *yin*–fluids and the source *qi* (原气 *yuanqi*), and 'essence (精 *jing*) flows away' (cited in Flaws 2003).

These relationships and dynamics are the basis of Li Dongyuan's pathogenic '*yin* fire' theory (Neeb 2009). Li's account of '*yin* fire' rests on his analysis of the 'stirring' of minister fire and highlights the role of the *shaoyang* — encompassing the liver as well the *sanjiao*–gallbladder — in distributing the clear *yang* throughout the body. In fact, Li's analysis gives as much importance to the *shaoyang* (the liver, gallbladder and *sanjiao*'s management and distribution of the lifegate's physiological fire) as he does to the spleen and stomach (Scheid et al. 2009, p. 319).

Li Dongyuan's interpretations drew on the earlier work of Liu Wansu (刘完素 1110–1200). Liu had observed how the *qi* of extreme or prolonged emotions transformed into pathogenic heat (五志化热 *wuzhi hua re*). According to Liu, this internal fire disturbed the heart–spirit / mind, consumed the body fluids, the source *qi* and the organs themselves (Rossi 2007b, p. 85). His explanation of how the five minds /

emotions (五志 *wuzhi*) transformed into pathogenic heat was very influential for both Li Dongyuan and Zhu Danxi (朱丹溪, 1281–1358).

Zhu Danxi's discussions of minister fire began with the ancient medical classics. His analysis extended the *HDNJ*'s concerns regarding the pathogenic potential of the emotions and desires by incorporating Liu Wansu and Li Dongyuan's concepts of '*wuzhi hua re*' and '*yin* fire' (Chen 1999, p. 194; Furth 1999, p. 146). He utilised the *HDNJ*'s ideas about 'mild' and 'strong' fire, and confirmed that the *HDNJ*'s mild fire (少火 *shaohuo*) and minister fire were the physiological fire of the lifegate. More specifically, the lifegate's clear *yangqi* was the source of minister fire, which disseminated the lifegate's 'orders' through the body, driving *zangfu qi*-transformations.

Zhu Danxi's work was also influenced by the Song dynasty's neo-Confucian interpretations of fire. The development of neo-Confucianism in the Song merged certain basic elements from Confucianism, Daoism and Buddhism, and in the words of Charlotte Furth (1999, p. 147), the notion of fire became 'a symbolically charged metaphor in representations of the medical body'. For example, conscious awareness (the 神 *shen*-spirit / mind) had been localised within the heart from earliest times and in the Song, the heart *zang* incorporated Buddhist notions that associated physical heat with consciousness (*yijnana*) (Despeux 2001, p. 151).

Moral concerns informed neo-Confucian discourses and led Song scholar physicians to focus on 'internal causes' (the emotions and desires) and counsel their patients to moderate their behaviours and emotional responses (Hinrichs 1998, pp. 299-300). Song dynasty metaphysics reinforced the medical–physiological implications of one's inner (mental–emotional) life for the heart's sovereign fire, and Zhu Danxi drew on neo-Confucian ideas concerning the problem of desire. He combined them with ancient classical conceptions: as the envoy of the kidney's lifegate fire, the minister fire served and protected the sovereign. Sovereign and minister fire thus became not only the source of *zangfu* functions, but the bodily vitality that drove human emotions, cravings and desires (Furth 1999, pp. 148-149).

Song scholar physicians believed that if sovereign fire did not stir frenetically, minister fire could not 'but take orders and keep to its position' (Zhu 1994

(originally 1347), p. 125), but the sovereign and minister fires were easily affected by things. In fact any excessive mental, emotional, physical or sexual activity was thought to 'stir' or agitate physiological fire and disrupt its correct (正 *zheng*) nature. The pathogenic effect of emotions and desires was *yang* in nature, and minister fire in particular tended to hyperactivity. Minister fire's relationship with the heart–sovereign fire led Zhu Danxi (1994 (originally 1347), p. 6) to conclude that 'Once the heart stirs, ministerial fire stirs too. When ministerial fire stirs, essence [精 *jing*] escapes on its own'.

Pathogenic fire patterns have a number of internal and external causes but the 'stirring of minister fire' is always due to internal causes. 'Internal causes' means that minister fire can become pathogenic when any of the *zangfu* becomes overheated, and is usually precipitated by mental, emotional and physical agitation including sexual arousal. Anger and lust for example disturb the liver and kidney systems in particular (Grant 2003, p. 123; Sivin 1987, p. 373). Especially since the Song–Jin–Yuan period (960–1368), premodern commentators specifically mention overindulgence in sexual activities as a factor contributing to pathogenic fire, as well as emotional stress and frustration, including sexual frustration.

Mental–emotional stresses were observed to destabilise minister fire and to 'depress' and 'constrain' liver *shuxie* (Flaws 2003). The concept of constraint (郁 *yu*) was first discussed in the *Suwen* (Treatise 71) in relation to the wood phase (liver and gallbladder), and Chinese medical discourses identified its effects with a pattern of signs and symptoms — the 'constraint pattern' (郁证 *yuzheng*) (Goodman 2009b; Zhang 2007b). Because the liver channel runs through the sexual and reproductive organs, the digestive organs, chest, throat, and so on, constraint pattern manifestations tend to affect these areas. Clinical manifestations include stomach, chest and / or rib-side distention and pain, the sensation of plum-stone throat (*globus hystericus*), tinnitus, anger, despondency, inability to eat, erectile dysfunction, blurred vision (Yan & Li 2007). CM treatments for emotion-related illnesses often include strategies to rectify liver *shuxie* functions.

In the Yuan dynasty (1260–1368), it was Zhu Danxi who linked disordered liver *shuxie* to the constraint pattern (郁证 *yuzheng*) (Rossi 2007b, p. 75). Since then, *yuzheng* tends to be specific to the liver, especially when emotional factors are involved. *Yu*-constraint is a major factor instigating or complicating all kinds of

pathogenic changes, and may be identified in individuals who are dealing with anger problems, agitation, anxiety, cystitis or irritable bowel syndrome (Agren 1982; Fruehauf 1995; Reid 2007; Rossi 2007b). To treat emotion-related disorders with *yu*-constraint manifestation patterns, today's CM physicians in China combine treatment with 'persuasion or disentanglement' (疏理 *shuli*) of the patient's personal and emotional blockages (Zhang 2007b, p. 64).

Because the liver *zang* has a *yang* nature, liver *qi* constraint from anger and frustration easily transforms into pathogenic fire. *Yu*-constraint disrupting liver *qi* and the stirring of pathogenic (liver and minister) fire can cause, exacerbate or accompany other illness patterns such as blood stasis, phlegm–dampness, damp heat or phlegm heat, fire constraint patterns affecting the liver, heart and pericardium, and various depletion patterns, in which case more complex treatment strategies are needed.

Zhu Danxi's interpretations elaborated on minister fire's physiological role as well as its potential for disruption and disharmony. He rationalised all the categories of fire that had accumulated since the Han (celestial fire, human fire, sovereign fire, minister fire, dragon fire, thunder fire, and so on) to identify two main illness patterns, depletion and repletion fire (Goodman 2009b, p. 106).

Thanks to Zhu Danxi's analysis, TCM today identifies two kinds of internal pathogenic fire patterns. The first is an 'empty' fire from depleted liver and kidney *yin* — the depleted *yin* cannot hold or restrain the *yang*. The pattern is called 'liver and kidney *yin* depletion with *yang* hyperactivity'. In TCM texts '*yang* hyperactivity' is the same as 'empty fire', 'vacuity fire flaming upward' and 'ascendant hyperactivity of minister fire'. The treatment strategy in this case is to clear heat and nourish the *yin*.

The second type of pathogenic fire is a repletion pattern from liver *qi* constraint transforming into fire — constrained heat patterns are sometimes called 'hyperactive minister fire' or 'internal blazing of minister fire', but more frequently, contemporary TCM textbooks identify the pattern as 'liver and gallbladder fire blazing' (Wang & Robertson 2008, p. 131; Wiseman & Feng 1998, p. 396). The treatment strategy is to clear the pathogenic fire using cool and cold natured herbs.

In addition to pathogenic heat–fire patterns, CM physicians observed 'cold' manifestation clusters indicating that the physiological fire was depleted. Historically CM has identified this depletion with the lifegate fire rather than the minister fire. After the Song–Jin–Yuan period, it was the Ming (1368–1662) and Qing (1662–1911) physicians who formulated detailed analyses concerning the lifegate. Depleted lifegate fire affects all the *zangfu* and their *qi*-influences: the person feels weak and cold, the spleen and stomach cannot digest food; the bladder and kidney *qi* is weakened — the water passages become obstructed, there are likely to be urinary disorders, gastro-intestinal disorders, fluid retention and diminished sexual drive. If mental–emotional activities and responses are affected the person feels disoriented, their reactions to external stimulus are slow and dispirited, their ability to focus, analyse, plan and decide is disrupted (Unschuld 1985, p. 201).

The repletion and depletion patterns of minister fire's *yangqi* are: the *qi* stagnation patterns that transform into repletion fire affecting the liver–gallbladder and heart–pericardium; liver *yang* hyperactivity patterns that are due to liver and kidney *yin* depletion; and the depleted kidney–lifegate *yang*. Appropriate treatment strategies will clear, regulate, nourish or strengthen affected systems using CM's early conceptions and *qi* models. To illustrate how practice flows from representations of the medical body, the remainder of this section will briefly illustrate how minister fire aspects of *qi* physiology are mapped onto the body, and how practice follows the ways in which minister fire and its dynamics are conceived.

Chinese medical models of *qi* movement structure its image of the body. Its *qi* models and relationships explain the body's functional systems and their relationships and are mapped on its surface by the acupoints and channel pathways. The sequence of *qi* circulation through the twelve channels model, for example, shows the transition of *qi*-influences from kidney (water) to pericardium (fire), then to the *sanjiao*, gallbladder, liver and so on (see Diagram 5.1 in Chapter Five). The five phase engendering (生 *sheng*) cycle (see Figure 3.1 in Chapter Three) transmits physiological fire (from the pericardium–*sanjiao*) to earth (spleen–stomach), and from earth to the metal phase (lungs–large intestine). The 'executive' envoy influences of the pericardium–*sanjiao* thus engender the postnatal *qi* transformations of the spleen and stomach, which in turn support the lung *qi*. The five phase engendering sequence also shows the movement of *qi*

from the kidney–bladder to the liver–gallbladder (water to wood): water (kidneys) engenders 'mild' physiological fire, whose movement is then managed by the liver and gallbladder.

CM's channel theory describes how the *qi* emerges from the pelvic region (lower *jiao*) and follows the governing vessel (GV, 督脉 *dumai*, the 'sea of *yang*') upwards along the spine. The *sanjiao* arises from the lifegate between the kidneys, and on the midline in the lumbar area, between the second and third lumbar vertebrae (L2–3), lies the acupoint GV4 (命门 *mingmen*). GV4 is on the surface midline between the two kidney *shu*-transport points on the bladder channel (BL23), and level with the interior location of the *HDNJ*'s 'minor heart'. The governing vessel and bladder channel *shu*-transport points below extend the channel and point dynamics described in the previous chapter's discussion of the *sanjiao*.

The governing vessel is the 'sea of *yang*', and the *yangqi*-influences of the physiological fire can be adjusted using its acupoints. Acu–moxa stimulation at GV4 for example strenthens the 'mild' fire of the lifegate's minister fire, the kidney–lifegate *yangqi*-influences and the functions of the essence–spirit / mind (精神 *jingshen*) (Deadman & Al-Khafaji 1995). The bladder channel surface pathway travels bilaterally and parallel to the governing vessel aiding the distribution if its *yangqi*-influences to specific functional areas. The bladder channel's *shu*-transport points on the back are aligned approximately with the placement of the *zang* and *fu* organ systems' physical locations and *qi* relationships. The *sanjiao*'s *yin* partner, the pericardium, is represented on the surface by BL14 (bilateral to the fourth and fifth thoracic vertebrae), which lies between the heart and lung *shu*-transport points (BL15 and BL13), just as the fine membranes of the heart protector were thought to connect with the heart and lungs in the upper *jiao*. Therapeutically, the bladder's *shu*-transport points can clear heat, strengthen *yangqi* and regulate the *qi*-influences of their respective *zangfu* systems.The therapeutic applications of the bladder channel transport points strengthen and regulate their respective *zangfu* activities (Deadman, Al-Khafaji & Baker 1998; Shi 2007).

To prevent the upward stirring of minister fire, Li Dongyuan's herbal treatment strategies focussed on strengthening spleen *qi*. When the spleen is strong, dampness cannot pour downward and damage the kidneys and lifegate. Li Dongyuan also used stir-fried Cortex Phellodendri (黄柏 *huangbai*) as one of the

ruling medicinals for pathogenic minister fire because of its known ability to drain the fire within water (meaning hyperactive minister fire), and to return minister fire to its proper place. Li Dongyuan particularly noted that although it is cold in nature, *huangbai* does not injure the stomach *qi* or the true *yang* (Chace & Zhang 1997, p. 88; Liu 1997, p. 11; Zhu 1994 (originally 1347), p. 112).

One of Zhu Danxi's major contributions was to develop the 'nourish *yin*–fluids and lower fire' strategy for the stirring of minister fire's hyperactive *yang* and depleted *yin* patterns. In addition, Zhu maintained that nourishment of *yin*–fluids should be combined with mental tranquillity, and the 'proper control of sexual activities' (Chen 1999, p. 194). In Zhu Danxi's words:

> Confucianists have established the teachings of putting the heart right, restraining the heart, and nurturing the heart. All this is for the purpose of preventing fire from stirring due to frenzy (i.e., madness over personal desires). Physicians instruct (people) to keep unperturbed and indifferent (to fame or gain), to take (everything) as empty, and to hold the essence spirit [精神 *jingshen*] in the interior (Zhu 1994 (originally 1347), p. 125).

Summary

From earliest times, CM noted the *qi*-influences of a tranquil mind and quiet self-possession, and both early CM and TCM today identify the emotions as factors that can damage the body's *yin*–interior. When Song–Jin–Yuan (960–1368) medicine took up the *HDNJ*'s notions of strong and mild fire, and its concepts regarding the mild physiological fire of the 'sovereign' and 'minister', minister fire became a key physiological concept guiding some of China's lasting medical developments, methods and formulas. Even though minister fire does not correspond to any physical body structure or substance, premodern treatment strategies and presciptions emphasise its importance for medical practice.

Song medicine explained the beneficial influence of emotional stability for the sovereign and minister fires, as well as their destructiveness when agitated, driven by desires or displaced by depletions (Furth 1999). Since the Song, CM has linked the *qi*-influences of emotions and desires with interior patterns of repletion involving heat, stagnation, spirit / mind disturbance and the constraint of liver

shuxie functions; with depletion of the kidney *yin*, kidney *yang*, the *jing*-essence, source *qi* and middle *qi* (spleen and stomach functions); and with the displacement or inappropriate movement of minister fire.

The *HDNJ*'s six channel and five phase models represent the heart–kidney (*shaoyin*) relationship as the physiological axis between fire and water, and between conscious awareness (the heart 神 *shen*) and the mind / will (the kidney 志 *zhi*). Their relationship is mediated by the *qi*-influences and substances lying between them. So, agitated physiological fire, pathogenic heat, phlegm and dampness, depleted spleen and stomach *qi*, food stasis, and liver *qi* constraint can all affect heart–kidney 'communication' and disturb the clarity of consciousness.

CM's channel system links the heart with the kidneys, and the *qi* of the minister (kidney) and sovereign (heart) fire strengthen one another. The sovereign and minister fire animate the body, forming and directing its life processes and transformations. More specifically, the minister fire energises the body's physiological activities, including the sexual and reproductive functions of the liver and kidney *zang*. The radiance of the sovereign fire brightens postnatal conscious awareness, including the reception and analysis of sensory perceptions, and its mental–emotional activities. A more detailed discussion of CM's perspective on human mentality follows in Chapter Seven.

This chapter continues the thesis' examination of some of the conceptual and clinical issues for English speaking CM professionals wishing to understand the dynamics of orderly *qi*-influences and dysfunction. The discussion highlights the role of minister fire and includes related issues concerning the pericardium and lifegate. Minister fire conveys the influences of an individual's prenatal resources to guide their postnatal *qi* activities and transformation, as embodied by the heart–kidney axis (the *shaoyin*, the fire–water, the *shen*-spirit / mind–*jing*-essence).

The minister fire's influences are managed and disseminated by its associations with the pericardium–liver (the *jueyin*) and *sanjiao*–gallbladder (*shaoyang*) that integrate and communicate between the upper and lower *jiao*, the body interior and exterior, the *shen*-spirit / mind that lodges in the heart and the *jing*-essence stored in the kidneys. As the basis of the body's physiological fire influences, and the source *qi* and its circulation throughout the *zangfu* and the channels, the

lifegate's moving *qi* is the source of life. The *qi* circulating in the channel system in turn extends the lifegate's influences to the brain and bone marrow, to the limbs and the body surface, warming the skin and the *couli*, steaming the three *jiao*, guiding and maintaining correct *qi* physiology (Chace & Zhang 1997, p. 159).

As a medical concept, *qi* unifies the physical body and its mental and emotional influences, processes and responses. Whether as the active *yangqi* of the kidney and its essence–spirit / mind (精神 *jingshen*), or as envoy of the radiance (神明 *shenming*) of the sovereign heart–*shen*, minister fire is simply another category of *qi*. *Qi* connects a person's mental and emotional life with the physiological processes and structures that produce and maintain the body form and sense of self. Moreover, *qi* connects human life generally, and one's self specifically, with the *qi* movements and transformations of our social, cultural and natural environments.

The 'one *qi* running through all of creation' assumed the interrelatedness of all phenomena, not only between the emotions and physicality of an individual person, but also between the person and their sociopolitical and cosmological environment. Thus, the gap between mind and body created by philosophical traditions in the West never arose in China. Chinese diagnostic methods observed and interpreted the functional disturbances caused by illness; its clinical methods were designed to adjust *qi* movements and transformations. This is the case whether its medical interventions are applied to 'physical' or 'mental' illnesses.

Chapter Seven:

The Mind

What China's traditional sources have to say about the mind is not easily comparable to the developments of Western psychology over the past century. For one thing, the historical and cultural differences are too large, and for another, CM did not conceive of the demarcation between body and mind that is implicit in the West's biomedical / psychological tradition. The literature shows that from early times Chinese physicians practiced a holistic understanding of 'psychology' that still offers insights into the mechanisms and treatment of mental disorder. So how does the CM tradition deal with human mentality? And how does contemporary practice take account of Western developments in psychiatry and psychology?

Even in translation it is evident that mental–emotional manifestations figured prominently in early Chinese conceptions of illness, but not separately from physical manifestations. Medical texts from the Han (206 BCE–220 CE) to the late Ming (1368–1644) contain many signs and symptoms that indicate 'mental dysfunction' to a Western reader — agitation, depressive mood, vexation, ceaseless laughing, anger, confusion, delirium and the failure to recognise people. For any given pattern of disorder however, early CM discourses noted a cluster of key physical, behavioural, mental and emotional signs and symptoms (Agren 1982; Chen 2002; Chiu 1986).

The lack of differentiation between mental and physical manifestations meant that 'mental illness' was rarely mentioned in CM's premodern literature, and this led some European commentators to surmise that the Chinese had little experience of it (Chiu 1986). Later, medical anthropologists such as Arthur Kleinman (1980; 1985) reported that the Chinese apparently physicalised their mental illnesses because they described their mental–emotional states in terms of bodily signs and symptoms. However as Charlotte Furth (1986, p. 59) for one has argued, interpretations of a Chinese absence or physicalisation of mental illness assumed the body–mind distinction that was fundamentally a Western centred construction of experience (see also Ots 1990).

To modernise traditional Chinese medical perspectives, the TCM clinical textbooks that include sections on psychological illness structure them using current psychiatric disease categories. Western generated TCM publications also link premodern terms with contemporary disease categories (see for example Flaws & Lake 2001; Fruehauf 1995, 2006; Garvey 2001; Hou 1996; Larre & Rochat de la Vallee 1995; Maciocia 2009; Qu & Garvey 2006; Reid 2007; Rossi 2007b; Yang & Morris 2008). These adaptations are part of the scientisation of CM discussed in the Introduction and Chapter One. They incorporate Chapter V: 'Mental and Behavioural Disorders' of the World Health Organisation's *International Statistical Classification of Diseases and Related Health Problems*, *10th Revision* (hereafter *ICD–10*) (1992), or the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, version IV (hereafter *DSM–IV*) (1995).

The modernisation of CM has usually meant that authors omit references to concepts that might be considered superstitious or obsolete (Sivin 1993, p. 208), and translate traditional terms into more contemporary psychological terms. However historical, ethnographic and anthropological researchers decry the 'hybridising' of original terminologies and refrain from equating early Chinese mental–emotional disorders, such as 'possession' and 'visceral agitation', with Western psychiatric psychoses and neuroses (Chiu 1986; Scheid, Ward & Tuffrey 2010; Sivin 1995a).

It is easy enough for today's clinicians to understand why contemporary CM authors do this: TCM professionals want to be taken seriously by their clients as well as their biomedical counterparts; they also need to be able to connect traditional conceptions with contemporary disease categories. While Western historical, anthropological and ethnographic research attempts to preserve cultural and historical accuracy, in my experience (twenty-six years as a practitioner and twenty-one as an educator) issues of clinical relevance and efficacy occupy the foreground in the practice of CM today in China, Australia and elsewhere. Although CM's traditional conceptions of the undifferentiated body–mind are acknowledged, the main purpose of contemporary clinical texts in the West is to guide the practitioner in interpreting clinical presentations, including the client's biomedical / psychological disease diagnoses, and applying appropriate therapies (Flaws & Lake 2001; Hou 1996).

In this way, integration and modernisation fundamentally change traditional methods of diagnosis and therapy. The standard TCM textbook approach today employs *ICD–10* or *DSM–IV* classifications of symptomatology to identify diseases (辨病 *bian bing*). CM's pattern identification (辩证 *bian zheng*) is then applied within contemporary disease categories. As integrative clinical manuals these publications do not abandon the traditional notion of pattern clusters, although the modernisation–integration process effectively reduces pattern identification to a standardised set of add-ons to the biomedical / psychiatric disease categories that structure textbook content. The structure of textbook content in turn shapes clinical perspectives and practices.

To examine CM's perspective on the 'mind', the chapter is divided into three sections. The first, 'Ancestors, instincts, awareness', reflects CM's traditional source–manifestation epistemic (discussed in Chapter Two), and begins with an overview of CM's conceptions of human mentality. The source of every individual's life resources is the inherited factors and potentials from parents and ancestors. Chinese conceptions apportion the innate and acquired aspects of mentality to the 'prenatal' and 'postnatal' stages of human life. Ancestral, parental and *in-utero* factors and influences are prenatal, and prenatal factors to an extent determine an individual's postnatal abilities, disposition and body form.

The second section, 'Human mentality', deals with postnatal conscious awareness. After birth, postnatal life begins and the fully differentiated aspects of human physiology and mentality become the object of self cultivation and the Chinese medical gaze. The chapter's analysis will show that, although the TCM orthodoxy has subordinated traditional conceptions and methods to a disease-focussed biomedical epistemic, available English-language sources can restore some of CM's premodern diagnostic and treatment strategies.

The third section, 'The embodied self', will examine Chinese medical conceptions of the 'mind–body' and the impact of this model for therapy. In CM the cognitive, emotional and sensory activities of human mentality are interdependent with physiological resources and processes. While the body's *qi*-influences and substances support, facilitate and reveal the 'mind' (神 *shen*), the mind itself both guides and arises from the processes and transformations of the organ systems, their tissues and substances, their sensory organs and perceptions.

None of these body–mind connections are so surprising for Westerners today. Nowadays, cognitive scientists propose the mind as an emergent property of biological complexity, and while CM could embrace such a perspective, the evolution of its medical epistemics has led in any case to a more integrated concept of the body as lived experience. Of note is how detailed early Chinese medical frameworks were in their analysis of mentality, and how pragmatic with regard to correcting disorder and cultivating life.

Ancestors, instincts, awareness

China's premodern medical literature actually has quite a bit to say about the mind, at least insofar as contemporary texts use 'mind' or 'consciousness' to translate a number of traditional terms. The main ones are 神 *shen* (spirit / mind), 心 *xin* (heart-mind), 心神 *xinshen* (heart–spirit / mind), 神志 *shenzhi* (spirit / mind) and 精神 *jingshen* (essence–spirit / mind). Before examining CM's premodern concepts of human mentality some clarification of its terms and concepts is needed.

The majority of premodern and contemporary CM texts would support a definition of the historical 神 *shen* as the 'phenomenon of life activities', or as 'manifested vitalities'. As a medical concept, this definition of *shen* links our accustomed notions of the psychological and physical in the same way that *qi* links our ideas of energy and matter (Roth 1991). Nevertheless, today's TCM texts emphasise the 神 *shen*-spirit / mind as the living body's faculties of conscious awareness and identify it with human mentality, the mind. I will retain the term '神 *shen*' in this chapter to distinguish it from Western notions of 'mind' and 'spirit', which each carry dichotomous body–mind connotations and religious and spiritual ideas that are not identical to Chinese medical conceptions.

Two Chinese characters that are relevant for the present discussion, the 神 spirit / mind, and 身 body / person, are both romanised using the pinyin '*shen*'. In English textbooks the terms 身 *shen* and 形 *xing* are usually translated as 'body', although they are not exclusively expressions of physicality or biological structure (see Chapter Three). Early Chinese conceptions saw the 身 *shen*-body as the

embodied self, while the term 形 *xing* referred to one's 'form', 'shape' and 'appearance'.

Originally 神 *shen* was used in everyday Chinese language to refer to gods and divinities external to the body. As a medical term, the *HDNJ*'s (*c*. 100 BCE) use of '*shen*' implied the embodiment of 'the qualities of brightness [明 *ming*] and spontaneous perception [神 *shen*]' represented by these spirit entities (Lo 2001, p. 38). Commenting on the *HDNJ*, Manfred Porkert (1979, p. 127) assigns it a more purposeful role. He explains *shen* as 'configurative force', meaning the 'directing influence' which shapes the body form and guides the materialization of *qi*. Similarly, John Hay's (1983, p. 83) reading of *shen* emphasises 'the force which shapes the materialization of [*qi*]'. In addition he notes that it is the *shen*'s influence that 'conditions the character and the cohesion of the personality'.

Early references to the essence–*shen* (精神 *jingshen*) in the medical context allude to the source and basis of human life. The term is embedded in the notion of source–manifestation and the physiology of the essence (精) stored in the kidneys and *shen* (神) that lodges in the heart. Notions of 'source and manifestation' are a consistent theme in early Chinese thinking beginning with the *Book of Changes* (易经 *Yijing*, *c*. 700 BCE). The movement from a unitary, undifferentiated source (the cosmogenic *dao*), through a process of *yin–yang* differentiation to emerge as the myriad beings and their manifestations, is reflected at the microcosmic level of the medical body.

TCM today also uses 'mind' for 神志 *shenzhi*, and 'emotions' are 情志 *qingzhi*. So 神志病 *shenzhi bing* are 'mind-related illnesses', and 情志病 *qingzhi bing* are 'emotion-related illnesses'. 精神病 *Jingshen bing* are 'mental illnesses', and as a medical term, *jingshen bing* is used for the more severe forms of emotion- and mind-related illnesses. As a pattern of disorder between the kidney (storing *jing*-essence, including the inherited essence) and heart (lodging the *shen*) (Zhang 2007b), TCM's *jingshen bing* are likely to involve inherited factors. In common language however, complaints of 'low *jingshen*' and 'lacking *jingshen*' are used simply to indicate the experience of low energy, poor concentration, lethargy, apathy and poor memory.

Early texts represent the 神 *shen* as dwelling in the heart (心 *xin*) and in the vessels (脉 *mai*), as the essence–*shen* (精神) that moved round the body with the blood and *qi*, and as an entity that could even leave the body entirely (Yates 1994, p. 70). The 神 *shen*, 精神 *jingshen*, 神志 *shenzhi* — TCM's 'mind' or 'conscious awareness' — are never contrasted with the physical body in the premodern literature, but always discussed in relation to its systems and substances, especially, but not exclusively, the heart, blood and essence. In the *Xunzi* (third century BCE) and *HDNJ* the body form (形) houses the *shen* (神), and the *shen* is the ruler of the body form. Rather than a dualistic conception, the binome 'body form–*shen'* (形神 *xingshen*) reveals a socio–cultural model and a medical gaze that assumes the functioning interrelatedness of physiological–mental–emotional resources and activities.

The *HDNJ* texts that discuss the beginning of life represent the inherited essence as the source of human life, the body form, its physiology, physicality and mentality. The parental ovum and sperm are the new individual's 'original' *yin* and *yang* essences: at conception they unite to form a new configuration of life information and potentials. Their union produces the *shen* and provides the new individual with their inherited essence–*shen* (元精神 *yuan jingshen*) (Qu & Garvey 2009b).

Microcosmically, the undifferentiated prenatal resources that are the beginning of a new individual life represent the cosmogenic *dao*. After conception, the undifferentiated resources of the original *jingshen* (元精神 *yuan jingshen*) that the new individual inherits from their parents and ancestors undergo the processes of *yin–yang* differentiation. The original *jingshen* guides the *in-utero* development of the body form and provides its initial endowment of vitality (Larre & Rochat de la Vallee 1995, p. 16). During gestation the processes of *yin–yang* differentiation partition the *qi* and produce the *yin* and *yang* organs and channel systems. At birth the fully differentiated young life emerges and postnatal life begins.

Two terms or entities are used to describe the prenatal 神 *shen*: the source *shen* (原神 *yuanshen*) and original *shen* (元神 *yuanshen*). The original *shen* arises at the moment of conception, and the source *shen* is the foundation of the original *shen*. The source *shen* is the distilled psychological experiences of all our ancestors that have been 'engraved on the heart and carved in the bones' (Qu & Garvey 2009b,

unpublished). The Chinese believe that from ancient times, all humanity's outer and inner life perceptions, the traces of evolutionary and survival experiences and memories, are accumulated, concentrated and stored within the source *shen*. The original *shen* that arises at conception to instigate life carries many instinctual responses, drives and activities from the source *shen*. It guides the early formation and development of the human form *in-utero* (Qu & Garvey unpublished).

The Han dynasty medical classics did not differentiate between the inherited and acquired (pre- and postnatal) *shen*. Discussions of their differences, meanings and significance began to appear in the medical literature from the Song (960–1279), and were drawn from Daoist and other philosophical sources (Kohn 1992; Robinet 1997). Because the prenatal *shen* exists before birth it was thought to be part of the *qi* that pervades the whole universe, and Daoist meditators placed great importance on it as 'spiritual consciousness'. Unlike the postnatal resources acquired after birth, the prenatal *shen* is undifferentiated human life energy, potentials and instincts: there is no conscious thinking or awareness, no memory, planning or reflection as such. After the Song, postnatal human consciousness is the knowing awareness of 'ordinary consciousness' (识神 *shishen*). In modern Chinese, 识神 *shishen* is also called 神识 *shenshi* — 'knowing and understanding'.

China's early concepts of the prenatal (source and original) *shen* represent the innate and instinctive core of human mentality. The prenatal *shen* therefore has considerable influence on our psychological traits although its nature is submerged, concealed and implicit. It is similar to psychoanalytic theory's 'unconscious mind' insofar as it is not normally available to our postnatal conscious awareness (Qu & Garvey 2009b). Its meaning is similar to the 'one', the 'great ultimate' (太極 *taiji*) — the undifferentiated source of all phenomena (Zhang 2002, p. 107).

The prenatal essence–*shen* provides the foetus with basic developmental and instinctual resources and functions. It guides the development of the foetus during gestation, the differentiation of the *qi* and the channels, the differentiation and formation of the organs, brain, bones, tendons, muscles and skin, the differentiation of the postnatal *shen*'s cognitive and sensory activities. After birth the inherited essence is stored in the kidneys and lifegate and the original *shen* is stored 'behind the eyes' in Tang dynasty (618–907) Daoist texts, and in the brain from the late Ming (1368–1644) (Qu & Garvey 2009b, unpublished).

The new individual's postnatal life resources develop and differentiate from their prenatal *jingshen* allotment, and in early CM are analysed according to five phase (五行 *wuxing*) correspondences. The five phase model applies to the phenomenal world of postnatal life, and this chapter's terms and categories are tabulated in Table 7.1 below. Table 7.1 adds to Chapter Five's Table 5.2 to include this chapter's associations, namely the five postnatal *shen* (五神 *wushen*) that differentiate from the inherited original *shen* (Qu & Garvey 2006).

Table 7.1: Five phase correspondences

Five Phases	WOOD	FIRE	EARTH	METAL	WATER
Zang	liver	heart	spleen	lung	kidney
Body tissues	sinews	vessels	flesh and muscles	skin and body hair	bones
Substance	stores blood, maintains *qi* patency	governs blood	forms *qi*, blood and fluids	governs *qi*	stores *jing*-essence
Wushen	魂 *hun* sentient soul	神 *shen* spirit / mind	意 *yi* ideation, cognition	魄 *po* corporeal soul	志 *zhi* mind, will, memory
Sensory aperture	eyes	tongue, *shenqiao*	mouth	nose and skin	ears
Sensory perception	visual	language, communication	taste	olfactory, tactile	auditory
Emotion	anger	joy	pensiveness	sadness	fear
Colour	green	red	yellow	white	black

In TCM textbooks the heart houses the *shen*-spirit / mind. From ancient times it was the 心 *xin* (heart-mind) that governed thinking and the ordering of the senses; it was the 'seat of emotions [and] moral sensitivities' (Geaney 2002, p. 95; Hsu 2005, p. 24). Jane Geaney's monograph (2002) focuses on human sensory functions and their relation to the heart-mind (心) as presented in Warring States period (475–221 BCE) Confucian and Daoist texts. She finds that, because the

heart-mind is the source of human emotions and mentality, the ancient Chinese did not consider reasoning and emoting as separate capacities (see Chapter Six).

At times the *HDNJ* used the term 心 *xin*-heart to signify 'mind' and mental activities, and elsewhere, the heart is the body's governing visceral system. After their contact with Jesuit missionaries, many late Ming (1368–1644) and early Qing (1644–1911) physicians began to regard the brain as the seat of intelligence and memory, rather than the heart (Andrews 1991, p. 33). Wang Qingren (王清任 1768–1831) argued strongly for this, even though his *shen*–settling formulas never targeted the brain: they were always directed at nourishing and regulating heart blood and *qi* (Wang 2007 (originally 1830)). Whatever its physical location, Qing scholars such as Ruan Yuan (阮元 1764–1849) retained early interpretations of the postnatal mind as an entity that 'obtained knowledge through perception and analysis of the phenomenal world' (Ng 1993, p. 53).

Human mentality

While conceptions of 'mentality' and 'physicality' are not dichotomised in early Chinese discourses, there is no question that the *HDNJ* corpus contains many signs, symptoms, activities and processes which today we would consider 'mental' and / or 'emotional'. Martha Li Chiu's analysis (1986) reveals enough links between these mental–emotional processes 'to support the view that they form a meaningful grouping even in early Chinese medical thought'. The *Lingshu* Treatise Eight offers the clearest example of this type of thinking. Its discussion of the origins of mental illness begins with a sustained description on the different aspects, or stages, of human cognition — 'a series of thought processes evolving out of each other … to form one coherent semantic domain' (Chiu 1986, p. 106).

> What responds to the environment is called heart-mind (心 *xin*).
> What *xin* brings out is called ideation (意 *yi*),
> What *yi* stores is called mind and memory (志 *zhi*),
> Because of *zhi*, knowledge is reorganized.
> This is called thinking and reflection (思 *si*).
> Because of *si*, one thinks for the future.
> This is called planning and strategy (虑 *lü*).

> Because of *lü*, one makes decisions and takes actions.
> This is called wisdom (智 *zhi*).
> (From the *Lingshu* Treatise Eight (cited in Zhang 2007b, p. 41).)

In this short passage, 意 *yi*-ideation and 志 *zhi*-mind, along with reflection, planning and wisdom, are presented as different aspects or phases of human cognition. Each depends upon the preceding activity, evolves towards the next, and connects orderly cognitive processes that are coordinated by the heart–*shen* to produce a seamless mental continuum. Later, Treatise Eight turns to the emotions: it describes how the emotions affect the *qi* and can injure the body's *yin*–interior.

Lingshu Treatise Eight's discussion of the five *shen* (五神 *wushen*) conveys early CM's awareness of and interest in the complexity of human mentality. In the above passage, ideation (意 *yi*) and mind / will (志 *zhi*) are two of the postnatal five *shen* — the other three are the spirit / mind (神 *shen*) itself, and the sentient soul (魂 *hun*) and corporeal soul (魄 *po*). Treatise Eight identifies each of them; it explains the relationships between them, with their connections with emotional activities and responses, and with the body's physical and physiological systems and substances. Treatise Eight's analysis of the levels and stages of cognition utilises the patterned thinking of five phase correspondences to link the five *shen* analysis of cognition and mentality with the five *yin* visceral systems, with the physiological substances and with feelings and emotions. Other *HDNJ* texts (for example, *Lingshu* Treatise 17) link the *yin* visceral systems (五脏 *wuzang*) to the five senses (五官 *wuguan*) — touch and smell, taste, vision, hearing and speech / communication.

The *HDNJ* texts represent the human 'mind' as distributed throughout the body. In describing the differentiated postnatal *shen* (the *wushen*), the *Lingshu* Treatise Eight emphasises their roles, and the relationships between them and with their physiological structures and substances. Ideation (意 *yi*) is stored in the spleen; it involves the ability to focus attention, and to form an image of the object of attention. Spleen–*yi* thus performs first stage reception, analysis and recollection of external influences and stimulus. The mind / will (志 *zhi*), stored in the kidneys, is the direction and determination that achieves goals and moves us forward in life. Moving forward cannot be accomplished without awareness of the past, so

kidney–*zhi* function includes storing mind information, the memory, in much the same way it stores refined physiological substance, the *jing*-essence.

In *Lingshu* Treatise Eight, postnatal *wushen* activities are interdependent with their associated visceral systems, sense organs, body tissues and *qi*-substances. For example, the sentient soul (魂 *hun*) resides in the liver, and in line 100: 'The liver stores the blood, and the *hun* adheres to the blood' ([Unknown] 2008 (originally *c*. 100 BCE), p. 151). Clinically, this means that orderly liver–*hun* activities such as receiving visual information are compromised if, for example, the person's blood is depleted. The clinician may identify a 'depleted liver blood pattern' in cases where the patient experiences blurred vision, night blindness, photo-sensitivity, 'floaters' or spots in their vision. If their *hun* is affected they may be anxious, agitated, inattentive, their eyes may seem blank; they may report sleep walking or insomnia (Garvey & Qu 2008).

The liver–*hun* 'comes and goes' (往来 *wanglai*) with the heart–*shen*, meaning that the communication between one's inner (mind–body) and external (out-of-body) environs is accomplished in particular by the relationship between the heart–*shen* and liver–*hun*. Their activities of course include their governance of communication (heart–*shen*) and visual (liver–*hun*) information. The relatively *yang shen*–*hun* partnership relies on the heart and liver *zang* functions of governing and storing the *yin*–blood.

The corporeal soul (魄 *po*) resides in the lung, and the lung–*po* 'exists and enters' (出入 *churu*) with the *jing*-essence stored in the kidneys. The lungs govern the *qi*, and lung *qi*-functions govern the rhythm of breathing and circulation. The lungs draw air (大气 *daqi*) into the body, and the kidneys assist the lungs by 'grasping the *qi*'. The relatively *yin jing*-essence needs *qi* movement to manifest and transform; and the relatively *yin po*–*jing* partnership is balanced by the relatively *yang qi*-functions of the lung. The lung–*po* and kidney–*zhi*'s physiological relationships (such as governing *qi* movement and storing *jing*) reflects the 'complete breathing' of *qi* cultivation (养气 *yangqi*) practices, the *churu*-exiting and entering relationship of the *po* and *jing*, the microcosmic interaction of heaven and earth, the upper *jiao* and lower *jiao*, *yang* and *yin* (Qu & Garvey 2006).

The *HDNJ* corpus uses the term 神 *shen* in two distinct ways. On the one hand, the 'global' *shen* was a general concept that encompassed all aspects of an individual's mental–emotional resources and activities. On the other hand, the heart–*shen* was one of five postnatal 'differentiated' *shen* (see Chiu 1986): the heart–*shen* received sensory information from all the five *shen* and coordinated their activities. In both senses the *shen* governs human intelligence; it makes us awake, alert and responsive during the day. At night it becomes inactive and returns to its lodging in the heart.

The *HDNJ* incorporates the polity and metaphysics of earlier Chinese texts and everyday language. The *Suwen* Treatise Eight likens the heart to a country's head of state — not just the personage but the office of the sovereign, the court of a king ([Unknown] 2005 (originally *c*. 100 BCE)). In the *Suwen* Treatise Eight's extended political metaphor, the heart is the 'sovereign ruler' (君主 *junzhu*) of the body. As the head of state, the heart–*shen* receives and manages all the sensory information, feelings, thoughts and perceptions experienced during our lifetime.

The same treatise assigned to the sovereign-heart the responsibility of the 'host' (主 *zhu*) receiving clarity, brightness and intelligence (神明 *shenming*). Just like the royal court, it is said that the heart is where *shenming* arises, or should arise if the country is to be governed wisely. As sovereign ruler of the body–mind, the heart–*shen* cultivates radiance and brightness (明 *ming*) — a quality or accomplishment that enables clarity, intelligence and perspicacity. To manage the five *shen* and their sensory perceptions, the postnatal heart–*shen* relies on the presence and cultivation of brightness and intelligence.

The *Suwen* Treatise Eight explains the importance of cultivating *shenming* as follows.

> The heart is the office of the monarch [君主]; [神明 *shenming*] issues from it. … If the ruler is enlightened [神明] all below him are secure. If he nourishes his vital forces in accordance with this, he will live long and pass his life without peril. If he governs all under heaven in accordance with this, it will be greatly prosperous. If the ruler is unenlightened [不明], the twelve offices will be endangered; the thoroughfares of circulation will be closed off and movement will not be free. The body will be greatly injured. If he nourishes his vital forces in accordance with this,

> the result will be calamity. If he governs all under heaven in accordance with this, he will imperil his patrimony. Take care! Take care! (cited in Lloyd & Sivin 2002, pp. 221-222)

The presence and cultivation of *shenming* intelligence, brightness and clarity enables and enhances postnatal 'knowing and understanding'. The heart–*shen*'s ability to successfully manage conscious awareness, to coordinate cognition, memory, ideation and the analysis of a constant stream of sensory information, depends largely on the presence and cultivation of *ming*-brightness (Qu & Garvey 2009a). In early Chinese representations, '*shenming*' understanding, clarity and intelligence had moral and social implications too because the heart–*shen* encompassed a person's ethics and morals, and their 'behaviors and attitudes towards others' (Zhang 2007b, p. 39).

In the *Suwen* Treatise Eight and elsewhere, the *HDNJ* frequently associates the 'superior level of intellectual power' with clear perceptions (Chiu 1986, p. 166). The sense offices have apertures (窍 *qiao*) that open to the external world to receive 'impressions'; visual information is received by the liver–*hun* because the liver opens to the eyes and liver blood nourishes the eyesight; auditory information is received by the kidney–*zhi* because the kidney opens to the ears and kidney–*jing* nourishes auditory functions; the spleen–*yi* recognises flavours via the mouth; the lung–*po* recognises smells via the nose and tactile information via the skin (Qu & Garvey 2009a) (see Table 7.1 above).

The heart–*shen* recognises language and communication via its aperture (神窍 *shenqiao*). As the sovereign, the heart–*shen* also receives, coordinates and analyses the sensory information from the five *shen*. So long as the heart–*shen*'s own aperture, and each of the senses and their apertures, were clear and free of obstructions, early Chinese texts considered them reliable and acceptable for receiving and interpreting sensory information (Geaney 2002, p. 41). For Mengzi (孟子 *c.* 372–289 BCE) and Xunzi (荀子 *c.* 312–230 BCE), the ordinary activities of human senses, the reception of auditory, visual, smell, taste and tactile information, were 'specialised forms of interaction' between the person's inner and outer world. In the *Xunzi*, the heart-mind (心) is necessary for the senses to 'know'. In the *Mengzi*, the senses extend the heart-mind's knowing and understanding beyond the body periphery (Geaney 2002).

As the head of state, the heart–*shen* in particular requires brightness and clarity (神明 *shenming*) to coordinate and analyse the complex stream of sensory information it receives from the *wushen* and their sensory apertures. At the same time, the *shen*'s capacity to manage the person's mind–body resources and activities is called *shenming*. The brightness or otherwise of a person's *shen* manifests their personal qualities, attitude, demeanour, intelligence, insight, concern for others, and so on.

CM's *shen* functions include appropriate responses to environmental stimuli. Responses are observable manifestations of the person's mental, emotional and physiological activities — a further extension of the visceral manifestations (脏象 *zangxiang*) methodology discussed above in Chapter Four. The outward (*yang*) movement of interior (*yin*) *qi* influences allows us to observe the manifestations of the person's interior systems and inner life. At the same time, the inward (*yin*) movement of exterior (*yang*) *qi* influences allows the body–person to harmonise with and respond to its environment. Orderly human mentality 'unfolds' into our abilities to focus, concentrate, assimilate and plan, to remember and imagine, in our abilities to receive, analyse and synthesise external influences, and the appropriateness of our responses to them. Traditional CM observes the *wushen*, their activities and relationships. The healthy heart–*shen* itself 'unfolds' into a clear complexion, bright eyes, physical and mental agility, understanding, intelligence and coherent speech.

TCM derives its notions of mentality from the *HDNJ* corpus. The TCM 神 *shen* refers to a person's mental–emotional activities and responses. Its manifestations can be observed in the face (the complexion should be glowing, the expression should be clear and natural), the eyes (should be bright and mobile), the conversation, manner, responses and body movements (should be distinct, graceful, sensitive and agile). Disordered *shen* manifestations are the opposite: the person is dazed, distracted, confused and incoherent, their complexion is grey, eyes are dim, responses are inappropriate, and movements are clumsy. Today, disordered *shen* manifestations are read as the signs and symptoms of mental illness. However, in their original context they are found amongst a pattern of mental, emotional, sensory, physiological and physical manifestations because '*shen* disturbance' is not an isolated event.

The embodied self

Early Confucian and Daoist conceptions and practices saw the 身 *shen*-body as the embodied self, the 'dynamic product of experience … continually shaped and reshaped by how one was living and had lived' (Kuriyama 1993, p. 53). In ancient and premodern China, the connections between a person's lived experience and their existential world were incorporated into its medical discourses and methods. These same connections may be observed in CM clinics today, and are highlighted in the contemporary fieldwork of Zhang Yanhua (2007a, 2007b).

During the Western Han (206 BCE–65 CE) self cultivation (修身 *xiushen*) and nurturing life (养生 *yangsheng*) traditions developed exercise techniques and dietetics to remediate physical health and cultivate longevity. Their breath and *qi* cultivation practices were incorporated into medical texts and later Daoist texts (Lo 2005). Ancient self cultivation texts developed a richly sensuous language around the subjective experiences of one's inner world, its *qi* movements and influences, and Vivienne Lo has found 'direct links between this literature' and the *HDNJ* texts (Hinrichs 1998, p. 305).

Self cultivation has been an important topic in China from very early times, and commentators suggest that self cultivation practices are integral to Chinese conceptions of the body (Ames 1993b). The Confucian classic, *The Great Learning* (大学 *Da Xue c*. 500 BCE), entreated everyone to 'take self cultivation as their ultimate concern' (Zhang 1999, p. 45). Although self cultivation (修身) literally means the 'cultivation of the body', the *Book of Changes* (*c*. 700 BCE) provided guidance for the cultivation of oneself 'toward better moral development' (Cheng 2006a, p. 326). Daoist and Confucian self cultivation trained one's attention upon the inner realm, the 神 *shen*, and the cultivation of 神明 *shenming* (Lo 2000). Indeed, just as 身 *shen* refers to one's person or self, the notion of self cultivation and its practices still refers to the cultivation of morality, of one's person, of the embodied self (Farquhar & Zhang 2005; Zhang 1999, p. 45).

To align one's behaviour with 'principle', and to cultivate the 'goodness' of human nature, Daoist and Confucian classics discuss ethical conduct and the cultivation of virtue. Mengzi emphasised the four virtues — benevolence (仁 *ren*), dutifulness

(义 *yi*), propriety (礼 *li*), and wisdom or moral intelligence (智 *zhi*). He stressed that one's *qi* should be gently led by the will (志 *zhi*). In this context, 气 *qi* is one's 'moral and physical energy' (Nivison 1999, p. 775).

The repetition of Buddhist and Confucian rituals and practices helped bind their participants to upright behaviours that were stored in the heart-mind as habit and disposition (Geaney 2002). Confucianism advocated the cultivation of strength, respect and wisdom. Daoist self cultivation preferred non-assertiveness, and replaced Confucian 'conformist methodologies' with practices that cultivated quietude and simplicity (Lai 2006, p. 83).

Buddhism developed a simple 'operational definition' of mental health and its cultivation (Goleman 1991, p. 94). Buddhism's analysis of mental factors and their resultant mental states observed that the cultivation of tranquillity, insight and equilibrium was disturbed by mental factors such as envy, laziness, anger and selfish desire. Mental factors such as ignorance and mental cloudiness lead to misperceptions and confusion, which in turn lead to bewilderment and further perceptual distortions. In this state, one's emotional responses become inappropriate, one's self-image inflated or distorted, and one's mind confused and deluded. Buddhism devised appropriate corrective strategies: confusion and mental cloudiness could be corrected by cultivating mental clarity; aversion and ill will could be countered by loving kindness, selfish attachment by equanimity, laziness by effort and enthusiasm, and so on.

The architect of neo-Confucian philosophy, Zhu Xi (朱熹 1130–1200), taught that quiescence served to purify and quieten the mind. With mental stillness one could gain the key to acting appropriately because in that state one was able to comprehend the patterns and principles (理 *li*) that constitute the world (Zhang 1999). He regarded the cultivation of Confucian virtues as necessary to become an exemplary person (君子 *junzi*).

The senses, and especially the effects of sensory desires on the body–mind, were a topic of concern from at least the Warring States period (475–221 BCE). Factors that preoccupied the senses and disturbed perceptions were noted: desire, attachment, ill-will and the like were known to affect and influence the body form, and over time to actually change one's physical appearance. Mengzi attributed

sensory desires to certain dispositions inherent to human nature: ‘The way the mouth is disposed toward tastes, the eye toward colors, the ear toward sounds, the nose toward smells, and the four limbs toward ease is human nature’ (cited in Kuriyama 1999, pp. 175-176). Zhu Danxi (朱丹溪 1281–1358), whose analysis of emotions, desires and pathological fire were discussed in the previous chapter, also commented on the pleasures of the senses: 'The desire of man is limitless ... warmth and softness fill the body, sounds and voices fill the ear, colours and images fill the eyes, perfumes and fragrances fill the nose, only in a man of iron could the heart not be moved' (cited in Rossi 2007a).

Circumstances that could disrupt the reception of sensory information were identified in the *Xunzi* (*c*. 250 BCE). As well as physical and environmental factors, the *Xunzi* includes the distractions and disturbances caused by sensory desires. For example, sensory impressions could be compromised when the body is threatened, ill or weakened; when the heart–mind is distracted or unstable; when there is darkness, distance, alcohol, hunger or thirst; ‘when external things are valued, [and] when behaviour departs from principle’ (Geaney 2002, p. 36). All such factors interfere with the five senses. They are called ‘obstructions’ (蔽 *bi*) because they cover the sense apertures, distorting and obscuring their reception of sensory information (Nivison 1999; Qu & Garvey 2009a). Sensory obstructions were seen to cause interpretive errors at best, and in terms of mental–emotional illnesses were identified with the ongoing experience of discomfort and distress, with phobias and obsessional behaviours.

In CM, physicians observed how in good health, the person experiences a subjective sense of ease ‘that is embodied through visceral experience and manifested in [their] social interactions [and] ordinary experience’ (Zhang 2007a, 2007b, p. 42). Whereas a person’s experience of unhappiness and sadness was accompanied by subjective feelings of stagnation and blockage, such as muscle tension, bloating, chest discomfort and lack of appetite. Subjective feelings of unhappiness and stagnation extend beyond the person’s internal body–mind sensations (their physical and visceral discomforts, anxieties, phobias, depression) to their social–emotional interactions and relationships (their neediness, distrust, inappropriate responses, emotional lability, erratic behaviour) (Garvey 2001). This is the person’s lived experience and existential world.

CM's interest in subjective experience therefore is integral to its conceptions of illness including mental–emotional related illnesses. Because mental–emotional related illnesses are characterised by disharmony, stagnations and obstructions in all aspects of the person's 'local world' (Zhang 2007b, p. 140), Chinese medical analysis led to a variety of terms for all kinds of material and immaterial stagnations and blockages: 蔽 *bi* — the obstructions that cover the sense apertures; 滞 *zhi* — the movement of *qi* is impeded; 瘀 *yu* — the stasis of tangible (有形 *youxing*) fluids such as blood; 郁 *yu* — an invisible (无形 *wuxing*) stagnation of *qi*, and 郁证 *yuzheng* — a pattern of stagnation that is closely related to CM's emotion-related disorders (Hou 1996; Qu & Garvey 2009a; Wiseman & Feng 2002; Xie 2002).

The character 郁 *yu* appears in the modern Chinese word for sadness and melancholy (忧郁 *youyu*) and in the Chinese translation of the psychiatric term for depression (抑郁 *yiyu*) (Zhang 2007b, pp. 45-46). Following Zhu Danxi's analysis, TCM discourses identify the manifestations and transformations of the *qi* stagnation pattern (郁证 *yuzheng*) in many if not the majority of mental–emotional disorders (see for example Flaws & Lake 2001; Fruehauf 1995; Rossi 2007b). Texts from well before the Song however still offer today's clinician many insights into the dynamics of mental and emotional related illnesses. To conclude this chapter's discussion, three examples follow.

'Plum pit *qi'*, 'visceral agitation' and 'depletion–wasting' are examples of premodern illness classifications and patterns of stagnation and depletion that are very common in present day CM clinics. 'Plum pit *qi'* (梅核气 *meiheqi*) is an example of invisible (无形 *wuxing*) emotion-related stagnation — the 郁证 *yuzheng* 'stagnation pattern'. The illness name refers to the patient's subjective sensation of something lodged in the throat, although medical investigations reveal that there is no physical reason for the discomfort. The illness mechanism producing plum pit *qi* is instigated by a mental–emotional incident, trauma or response that disrupts liver *shuxie*, which in turn disrupts stomach *qi* causing phlegm–dampness to congeal. The patient is unaware of these developments, and biomedical examinations and tests reveal no pathological changes and no disease. In the West, plum pit qi is known as *globus hystericus* (Garvey 2001; Qu & Garvey 2006).

A continued pattern of liver *qi* stagnation transforms into pathogenic fire. Pathogenic fire agitates the liver–*hun* and heart–*shen* and depletes the *yin*–blood. In these conditions the *shen* and *hun* cannot settle. The pattern of manifestations is likely to include sleep disturbances, inappropriate verbal or emotional responses or laughter, absent mindedness, forgetfulness, poor judgment and poor problem solving. As a group, these manifestation patterns were first identified in the *Synopsis of Prescriptions of the Golden Cabinet* (金匱要略 *Jingui Yaolue*, originally *c*. 200 CE) as 'visceral agitation' (脏躁 *zangzao*). Like 'plum pit *qi*', visceral agitation is an illness response to emotional stress, and both illnesses are quite common in contemporary clinics.

Stagnation patterns were sometimes associated with the more serious and potentially life-threatening 'depletion–wasting' (虚勞 *xulao*) — an illness characterised by weakness and debility and the severe depletion of *qi*, blood and organ function (Garvey & Qu 2008). Fu Qingzhu (傅青主 1607–1684) noted some of the key manifestations: dark circles under the eyes, blurred vision, nausea, 'and absence of governance in the heart or wandering [*shen*] and *hun* as if walking amidst the clouds in the sky' (1996 (originally, 1826), pp. 104-105). In administering herbal substances that nourish the blood and supplement the essence of the liver and kidneys, Fu's methods employed therapeutic strategies first described in the *HDNJ*, assimilated later theoretical developments from Eastern Han, Tang and Song–Jin–Yuan texts, and developed a therapeutic strategy which, using pattern identification, we can apply in some cases of postnatal depression today.

To adjust the person's *qi*-influences and harmonise their internal environment the CM clinician must be able to identify complex illness patterns. From there they may determine appropriate herbal and acupuncture strategies and individualise prescriptions. Appropriate therapy replenishes depletions and de-obstructs *qi*-movements and functions. Strategies for depletions must replenish the affected substances and relevant systems: for example, 'nourishing heart–blood' or 'supplementing liver blood and kidney essence'. Strategies for stagnations must, for example 'dredge the liver and rectify the flow of *qi*' or 'dissolve stagnation and eliminate vexation'. Because the mind, body, substances and emotions are all manifestations of *qi*, the therapeutic adjustment of *qi* adjusts all aspects of the self (Ots 1990).

The CM patient experiences a subtle shift on many levels, because in mental–emotional disorders harmonising the *qi* dynamic affects their perceptions, responses and social interactions, and their sense of physical ease and comfort. In clinical practice, CM's therapeutic adjusting or balancing (调 *tiao*) referred to the patient's *qi* physiology (*qi* movements, influences and process events), and in cases of mental–emotional illnesses, adjustments to *qi* physiology were connected to the person's perceptions and social relations. Hence, traditional Chinese medical advice might have included moral and behavioural counsel; in some cases the patient was required 'to restrain their desires, moderate their diet and abstain from sexual intercourse' (Grant 2003, p. 89).

Although the subject of medical advice is rarely advanced in English-language TCM texts, it is generally understood that in many cases recovery will require the correction of detrimental dietary, exercise or other life habits. Adjustments of this kind are acceptable topics in the Western clinical setting too. But traditionally, and especially with regard to one's mental–emotional life and in cases of mind and emotion related illness, CM clearly advocates the benefits of self cultivation practices and virtuous or ethical conduct.

For the same reasons, the practice of CM demands not only learned knowledge and clinical experience. Self-cultivation and virtuous conduct benefit the clinician's own mind, which must be undisturbed, bright and clear; their senses must be unobstructed, and their perceptions undistracted by attachment or aversion. They must be able to listen without prejudice, preconceptions or discursive thought (Chace & Shima 2010, p. 61). These are necessary conditions for the accurate perception of clinical manifestations and the identification of disorderly patterns. Learning and experience combined with the cultivation of *shenming* clarity and insight enable the selection and deployment of appropriate areas of the Chinese medical archive to specific clinical instances and individual *qi* patterns.

Summary

In CM, human mentality is an embodied complex of inherited influences and abilities, and the *qi* resources, sensory experiences, environment and relationships

of this life. Postnatal human conscious awareness arises from the distilled memories, behaviours and biological evolution of our ancestors. The source *shen* (原神) stores, distils and carries the innate survival experiences and abilities of human evolution. We 'inherit' these abilities and memories when the source *shen* is stimulated at conception to produce the original *shen* (元神). The original *shen* is the first impetus of life: it carries our inherited ancestral allotment as instinctual drives and abilities; it instigates life and guides *in-utero* development. After conception, the new individual's 'mental' resources begin to differentiate and develop parallel to their 'physical' resources and body form.

In the *HDNJ* texts, the postnatal 'mind' is distributed among the internal organ systems, their substances, tissues and sensory faculties. Our postnatal body structures and substances enable our inherited abilities and potentials. The postnatal heart–*shen* manages the living body's mental and sensory functions, emotional responses, social relations and physiological activities. To produce human conscious awareness, the harmonious interactions of the five *shen*, and their associated viscera, sense organs, tissues and substances, process a complex stream of visual, olfactory, taste, tactile, auditory and other perceived information and influences.

The heart–*shen*'s coordination and analysis of, and its responses to, all these influences produce the seamless, harmonised activities of human consciousness. Its management of cognitive activities and emotional responses, and its interpretations of sensory impressions can easily be disturbed by all kinds of physical and non-physical factors. Disintegration occurring in any of the relationships between the five *shen*, and with their respective organ–channel systems, senses, tissues, substances and structures, disrupt human life, health and conscious awareness.

The influences and stimulus of emotional responses and sensory perceptions have a direct and immediate impact on *qi* functionality and mentality. Just as one's 'state of mind' is influenced by (dis)orderly physiological functions, one's attitude and demeanour directly affects internal *qi*-physiology, movement and transformations. All these 'non-physical' factors, the senses, emotions and mental activities, were known to affect and influence the body form itself, and over time to actually change one's physical appearance.

CM's therapeutic strategies directly guide therapy which, in cases of mind and emotion related disorders, also aims to adjust the patient's subjective experiences and perspectives. To do this, traditional methods adjust the affected organ systems, their *qi*-influences and substances. They harmonise disorderly *qi* patterns and restore *yin–yang* imbalances, they resolve pathogenic factors, clear obstructions and replenish depletions that disrupt *wushen* activities.

CM's premodern discourses incorporated local social, political, religious and philosophical conceptions, including various currents of self cultivation practices. The postnatal 神 *shen* is a cultivated condition of clarity and attention to the reception and analysis of sensory information. Self-cultivation practices train the body and mind — the movement and patency of *qi*-influences protecting the *jing*-essence and brightening the *shen*-spirit / mind. Traditional conceptions connect self cultivation discourses with other important CM topics — the maintenance of health, the cultivation of one's abilities, strength, relationships, awareness and intelligence.

For the last one hundred years, TCM has been incorporating biomedical and psychological terms and technologies into its medical training and healthcare practices. TCM clinical texts dealing with mental illnesses use psychiatric disease categories for their organisation of content. Authors and educators in the West use the World Health Organisation's *ICD–10* or the American Psychiatric Association's *DSM–IV* categories to 'translate' premodern illness terms and link CM with contemporary practices. However, while observations concerning the patient's speech, responses and mental clarity are noted in today's TCM texts, the integration of traditional notions of the 神 *shen* with contemporary biomedical / psychiatric notions of the mind are seldom explained.

By contextualising some of these changes, the chapter explains some of the issues that are relevant for this important area of clinical practice, and benefits access to some aspects of premodern CM 'psychology' that are only just coming to light in the West. The chapter's contributions to access and context, help place premodern conceptions in a clearer light, and illuminate the perspective from which traditional Chinese medical diagnosis and therapy are carried out.

As the chapter shows, CM's traditional conceptions are detailed and holistic. In the West, the social, interpersonal and mental–emotional aspects of health and disease are the domain of adjunct modalities such as psychology, while biomedical methods are more suited to the management of physical and sexual health. In CM, the basis of physical, cognitive, sensory and emotional conditions in *qi*-functions and influences explains important features of body–mind (形神 *xingshen*) physiology and disorder. In an era where we recognise the integration of physical, psychological and social factors in health management, CM's model of human consciousness has explanatory insight and therapeutic potential for contemporary clinicians and healthcare users.

Chapter Eight:

Concluding Remarks

The thesis examines how the body is conceived in Chinese medicine (CM), and suggests the continued relevance of its traditional conceptions for contemporary practitioners. CM has been taken up by many Asian and non-Asian countries all over the world and is taught in many Western universities. The tensions between tradition and modernisation have been a consistent feature of CM's recent history, and have accompanied its global emergence. These and other changes have resulted in a unique story of adaptation and plurality.

Currently, the Australian CM profession works peripherally to the biomedical healthcare system. While biomedicine (BM) practitioners may be prepared to selectively adapt techniques from Chinese acupuncture or active constituents derived from herbal materials, they are mostly unaware of and / or sceptical about the theoretical frameworks and concepts that traditionally underpin CM's clinical methods.

Australian CM practitioners may be better informed, however CM training in Australia relies primarily on English-language materials, and access to premodern and contemporary Chinese sources in English is problematic. English-language materials are written or translated to align CM with biomedical culture and parameters. Modernisation and biomedicalisation are altering traditional concepts and terms causing a fundamental shift in their contexts and meanings, a shift that dislocates CM from its traditional perspectives and methods.

These matters are of concern to today's CM profession internationally, and the issues in Australia are not unlike those in other English speaking countries where local sociopolitical contexts will largely determine CM's future. The question for the transmission and evolution of CM in Australia is how best to professionalise the discipline and negotiate our future as a healthcare profession within today's biomedical culture.

On the one hand, Australia's present climate of medical pluralism may actually contribute to the preservation of CM as a distinct discipline, allowing the profession to maintain its traditional features and methods. On the other hand, the Australian CM profession is likely to find it more expedient politically and educationally to biomedicalise Chinese medical content and methods, and to follow or create a path of integration with BM.

The goal of the thesis has been to examine the first option, the preservation of CM as a distinct medical discipline, for the reasons shown in Chapter One. In Chapter One, the processes to modernise and integrate CM with BM were shown to apply biomedical criteria and methodologies to investigate, evaluate and correct CM. These are value-laden processes that essentially change the discipline. Locally, our tenuous grasp of traditional perspectives and methods means they are easily displaced by biomedical perspectives and methods, and Chapter One showed how biomedicalisation disrupts the traditional perspectives that guide Chinese medical reasoning and therapeutic decision-making.

To explore the preservation of CM as a distinct discipline, the thesis set out to reconstruct and re-imagine traditional conceptions of the body for the contemporary English speaking profession as a way of safeguarding the theoretical foundations that guide clinical practice. Despite its conservative nature, the project's goal to re-imagine the traditional Chinese medical body need not be regarded as backward or anti-progressive. Its grounding in China's early philosophies and life sciences is what gives CM its sense of continuity. Moreover, social theorists have long since discarded the notion of 'tradition' as stale and redundant in the light of scientific progress (Foucault 1972; Scheid 2002c, 2006), and certainly the history of CM reveals a dynamic and responsive tradition.

Though conservative, the CM tradition has always been dynamic. Ineffective theories and practices were discarded, new ones absorbed and developed; the concepts with explanatory power and the methods that worked were written down and passed on. According to the written record, debates over changes, innovation and problems were frequent and issues sometimes remained unresolved. Premodern CM openly admitted ideas and methods from many different periods and places, and contemporary CM demonstrates a similar tendency to pluralism, or dualism in the context of China's integrated CM–BM system (Fan 2003).

The thesis contributes to the goal of preserving CM as a distinct discipline in three ways. First, it contributes to the accessibility of the tradition and its diversity in English by reconstructing and re-imagining the Chinese medical body. Australian CM education and professional development depend on Western generated and translated materials; however no single area of the English-language literature provides a complete or detailed image of the Chinese medical body. Second, by re-imagining the traditional medical body and exploring some of its conceptual connections in detail the thesis contributes to the coherence and intelligibility of the Chinese medical system in English. Finally, it explores the traditional conceptions and theoretical foundations that characterise Chinese medical thinking and guide clinical practice, to highlight their relevance for contemporary healthcare.

The Chinese medical body

Although a detailed image of the Chinese medical body cannot be found in any one text, or in any one area of research, aspects of such an image are emerging with the growth of interest in CM in the West. The multidisciplinary sources discussed here reveal a great deal about the continuity and diversity of traditional conceptions. English-language research and scholarship within and outside the Traditional Chinese Medicine (TCM) orthodoxy have contributed to the thesis' reconstruction of CM's traditional representations and body image. By highlighting their relevance for clinical practice, the thesis' analysis has explored the intelligibility and relevance of CM's theory–practice nexus.

The Han dynasty's textual representations gave rise to a medical perspective that produced reliable frameworks, explanations and interventions, and yet premodern medical doctrines rarely attempted to generate a single coherent image of the body. They were not so much a theory of the body or of medicine, as a way of perceiving the world that was based on 'a process rather than a substance ontology' (Ames 1993a, p. 168; Zhang 2007b, p. 76). Early medical conceptions were based on the locational, directional and relational information produced by early *qi*, *yin–yang*, five phase and visceral manifestations frameworks. When CM's classic texts applied early observations of 'the laws of nature', they developed a body image that was not a singular or well-defined entity, but which was characterised by systems of process and transformation.

CM's premodern representations formulated whole person conceptions of the living body that prioritised relational systems of movement and transformation. According to them, the lifegate's moving *qi* was the origin of postnatal *qi*, the foundation of the five *zang* and six *fu*, the root of the twelve channels and the origin of the *sanjiao*. Postnatal *qi* was continually produced by the *zangfu* systems from food, drink and air, and circulated by the channels. Sufficient *qi*-substances, unimpeded *qi*-movement and orderly *qi*-influences maintained life and health. The dynamic balance among the *zang*, *fu*, channels and substances occurred spontaneously and harmoniously according to the body's daily and seasonal rhythms and the cycles and influences of the environment (Sivin 1987, p. 96; Unschuld 1986, p. 130).

In their discussions of illness, CM's early classic texts still included an earlier conflict model where the body is invaded by evil influences, but from the Han onwards, CM focused on natural and environmental agents for its analysis of external illness causing factors. At the same time it developed a more processual and relational view that applied to the internal organs, and to their systemic influences governing specific body tissues, structures and substances, senses, perceptions, responses and cognitive processes. The application of correlative frameworks categorised phenomena to analyse the living body in health and illness: correlative frameworks allowed CM to match its analysis of external environmental factors with its investigation of the body's internal environment.

Diagnosis identified patterns of manifestations rather than disease entities, and it accepted the validity of subjective experience and perception for clinical information and decision making. Diagnostic information was drawn from the person's physical form, their movements and colours, their sensory perceptions, cognitive activities, emotional responses and dispositions. CM's model of interior *zangfu* systems connected the body's organs, senses, tissues, structures, regions, substances and functions by relationships of 'governance'. Students of CM soon find that to understand CM's interior 'organs' they have to focus on functional activities and relationships, and they must be able to observe and interpret patterned clusters of manifestations.

The examination of some of CM's traditional medical entities, terms and concepts in Chapters Three to Seven contains the thesis' main contributions towards accessing some of these traditional conceptions in English. Terminological issues

concerning the body itself, the liver, *sanjiao*, physiological fire and *shen*, demonstrate the kinds of conceptual, language and transmission issues that can either support or dismantle traditional medical onto-epistemics.

For instance, premodern CM saw *sanjiao*'s lack of form as a link between prenatal and postnatal life, and the *sanjiao* itself as the envoy of the source of life. It is very difficult however to find these representations in contemporary texts. The thesis' more detailed interpretations allow the clinician to discern liver, *sanjiao*, minister fire and *shen* influences in a very wide range of clinical presentations, to select more appropriate therapeutic strategies, and to apply therapeutic techniques with greater accuracy.

Chapter Three's investigation of the body begins with early Chinese perspectives on being and reality. Ancient Chinese onto–epistemics influencing Han dynasty medical texts have been traced to the *Book of Changes*' (*c*. 700 BCE) focus on the emergent manifestations of life. CM observed how the body's interior dynamics manifested at its surface, and the ease of observation afforded early physicians a wealth of empirical information with which to devise and develop general medical concepts and principles (Porkert 1976, p. 68). At the body surface, the skin is a permeable membrane that on the one hand marks the boundary between the body's interior and exterior environments, and on the other, connects its interior *qi*-influences with the wider cosmos. Perhaps due to its 'location' and dynamic nature, CM considered the body surface an important site for therapeutic interventions (Hay 1994, p. 94).

Chapter Four and Five provide examples of the interior *yin* and *yang* organs (脏腑 *zangfu*). These two chapters combine textual discourse analysis with clinical and bio-scientific research outcomes to introduce some features of the body's interior organisation, reveal some of the complexity of the living body's *qi*-influences and substances, and reflect on the contrast between an organ with a clear anatomical correlation (the liver *zang*) and one of CM's non-anatomical entities (the *sanjiao fu*).

The liver's 'coursing and draining / secreting' functions have an intermediary effect on a very large range of physiological functions, substances, tissues and structures. Because it is almost impossible to find information regarding *xie*-draining / secreting in the literature in English, Chapter Four examines this aspect

of liver function in particular. In the case of the *sanjiao*, problems arise from incomplete and conflicting information in English-language texts. The discussion in Chapter Five draws together classical, contemporary and bio-scientific explanations of the *sanjiao*'s location and functions that have practical implications for *qi* physiology, pathophysiology and therapy in contemporary CM clinics.

In Chapters Four and Five contemporary expectations regarding anatomy and physiology, the internal organs, and the distinction between the body interior and exterior are overturned by CM's focus on functionality and relationship. The physical properties of the liver for example are barely mentioned in CM's premodern and contemporary texts. But in the case of the *sanjiao*, and despite its lack of form, it is the anatomical locations of its spaces and textures that best convey the *sanjiao*'s physiological and medical significance.

In Chapters Six and Seven, understanding the Chinese medical body relies even less on physical structures in favour of locational and temporal dynamics. As well as the *zangfu* organ systems, the literature places great importance on a number of other medical entities peculiar to CM — such as *qi* itself, the lifegate, the channels, and the 神 *shen*-spirit / mind. The 'source' of human life activities (the lifegate, source *qi*, minister fire) and its ramifications (the body form, the *yin–yang* organ and channel systems, *qi* movements and transformations), produce and respond to the *shen* and its *qi*-influences.

In the *Huangdi Neijing* (*HDNJ*) texts, the mind is distributed throughout the body. When the *Lingshu* Treatise Eight describes the differentiated postnatal *wushen*, it explains their cognitive roles and sensory perceptions; and it emphasises the relationships between them and with their physiological structures and substances. The discussion in Chapters Six and Seven show how, just as one's 'state of mind' could be influenced by dis/orderly *qi* physiology, one's inner life, emotional responses, attitude and demeanour would affect *qi* movement and transformations.

It is in this way that CM's concepts of *qi* connect a person's mental–emotional life with the physiological processes and structures that produce and maintain the body form and sense of self. Like the emotions, the influence and stimulus of sensory desires have a direct effect on a person's perceptions and responses, and an immediate impact on *qi* functionality. Physiological fire for example became

pathogenic and destructive when agitated, driven by desires or displaced by depletion, whereas mental clarity and quietude were thought to ensure its stability. All these 'non-physical' factors were known to affect and influence the body form itself and over time to actually change one's physical appearance.

Moreover, CM's notion of *qi* connects human life generally, and one's person or self specifically, with the *qi* movements and transformations of our social, cultural and natural environments. CM's processual and relational view applies to the systemic influences and transformations, body regions, organs, tissues, structures and substances, sensory perceptions, mental–emotional responses and conscious awareness.

Crucial for the goal of this thesis are the connections between early conceptions and the practice of medicine. It is because CM's notions of *qi* are not abstract constructs that its traditional medical methods are so practical and empirical. To harmonise living body systems, traditional Chinese acupuncture and herbal interventions replenish *qi* substances, and re-establish their orderly functions and movement. When the movement and interaction of *qi* and blood is harmonious, the body form and *shen* are unified, the essence–*qi*–*shen* are strong and well integrated, the *yin*–*yang* and five phase relationships are orderly, and human life unfolds.

Although the therapeutic adjustments CM aims for are as yet poorly understood using bio-scientific parameters, research does show that its interventions can instigate a cascade of physiological changes that result in the normalising of human life functions and processes.

Chinese medicine in contemporary English speaking contexts

The CM profession in Australia is still in the early stages of development and may well have to adapt traditional concepts and research clinical outcomes for the local context. The thesis argues that ensuring the future of CM as a distinct medical system within the Australian health industry however will require a lot more than that. A great deal of further work could be done for the English speaking profession to draw out the historical, philosophical, linguistic contexts of CM's terms and

concepts, and to locate them within a detailed mapping of clinical strategies and methods.

The multidisciplinary and synthetic analyses in this thesis have shown that the scholarship and research of related disciplines can build access for English speakers to CM's primary sources and reveal the internal principles and intelligibility that support its methods of practice. They have demonstrated how even a basic familiarity with traditional terms can connect pieces of functional and ontological information to the history of concepts and theorising in the Chinese medical archive. They can improve diagnostic reasoning, expand practice options, inform our reading of contemporary CM texts and contribute to a more critical and reflective English speaking profession.

The understanding of traditional representations of the Chinese medical body is both logical and expedient in terms of the effective utilisation of Chinese medical practice methods. The living body's *qi* patterns, transformations and process events, and its *zangfu* and channel systems organise the traditional body image and the Chinese medical gaze. To codify life processes and relational qualities, traditional methods utilize subjective data and their conceptual frameworks assume the connectedness and interaction of all things.

Traditional terms for *qi* systems and patterns correspond directly to CM's therapeutic archive and methods. In this way illness and therapy are 'knitted together by [CM's] conceptual apparatus' (Agren 1975b, p. 39). CM's theory–practice nexus means that identifying a pattern of disorder simultaneously identifies appropriate strategies: its functional language links clinical manifestations with therapeutic strategies and methods. Therapeutic strategies in turn connect individual *qi* patterns to representative formulas, and guide the selection of appropriate acupoints, medicinal substances, techniques and advice.

In an era where we recognise the integration of physical, psychological and social factors in health management, CM's traditional models explain important features of physiology and disorder. As a medical concept, *qi* unifies the physical body and its mental and emotional influences and responses making the Chinese medical body inclusive of physical, mental, emotional and social factors. China's traditional notions of body express social, cultural and moral values and its medical body is the living body–person, the product of lived experiences, the embodied self.

Allied with our biomedical infrastructures, traditional CM may well provide real benefits for the Australian healthcare system, users and costs. Although Australian healthcare is dominated by biomedical infrastructures and discourses, the present climate of medical pluralism does potentially allow the profession to maintain CM's distinctive features and methods. Other advantages of our local medical pluralism are its consistency with ethical principles that respect patient autonomy, and that it does not alter the integrity of mainstream BM or of 'alternative' healthcare practices. In fact, pluralism may foster cooperation between them, and could potentially prove a source of innovation for healthcare delivery (Kaptchuk & Miller 2005b).

Today CM comprises diverse medical conceptions, and it has absorbed new approaches to therapy, including its own assimilation of ideas from the West. Today, biomedical categories are built into TCM via its disease and pattern analysis (*bianbing–bianzheng*): first, the biomedical disease name is identified, and second, the relevant illness pattern is determined. By acknowledging twenty-first century disease categories, *bianbing* draws biomedicine into the CM process and connects the CM tradition to today's patient populations. The thesis argues however that increased integration is likely to lead to assimilation and the effective dismantling of traditional CM as a distinct medical system.

Consequently, the future of CM lies in broadening and deepening undergraduate training and education as the starting point for, and on-going development of, responsible medical practice. Currently, TCM textbooks in English provide a basic consensus of the literature and a starting point for understanding the mainstream orthodoxy. In addition, Australian CM students and professionals require reliable and accurate texts and materials that refine and deepen our engagement with CM. The Australian profession must be able to understand Chinese medical concepts on their own terms in order to apply them clinically, to utilise its methods correctly and flexibly according to the context, and to communicate CM's potential for contemporary healthcare.

Responsible medical practice relies on knowledge in the first instance, but historical, anthropological and ethnographic research and scholarship describe Chinese medical knowing and learning as a long process of experience, practice and embodiment. The doctor's training guides their interpretations of clinical data,

and over time, clinical experience develops their familiarity with manifestation patterns and practice methods. And then, as well as knowledge and experience, the practice of CM relies on the clarity of the clinician's diagnostic perceptions, and on the sensitivity and skills that develop with clinical practice and its 'complex field of social relations' (Farquhar 1990-1991, p. 63).

Early Chinese perspectives and contemporary scholarship show how one's sensory perceptions both mediate and make the world. In the *HDNJ* texts, the postnatal *shen* is a cultivated condition of clarity and attention to the reception and analysis of sensory information (Qu & Garvey 2009a). To perceive diagnostic information clearly requires a tranquil mind and because of this, meditation used to be an intrinsic aspect of every medical practitioner's training. Tranquility allows the mind to become stable and clear, and the practitioner was required to cultivate both learning and mental stillness. Stillness is a necessary condition for observing and listening attentively, without the distractions and preconceptions of discursive thought (Chace & Shima 2010, p. 61; Hsu 1999, p. 22; Lewis 2006, p. 23).

The practice of medicine, the clinician's perceptions, reasoning and decision-making, are guided by learned perceptions of the body, the site of therapeutic interventions. Ultimately, medical learning and experience rely on the local educational and professional culture, and on the clinician's own subjective and practiced skills and awareness. The accomplishment and maintenance of a 'correct' or 'aligned' (正 *zheng*) body–self and the development of clarity and intelligence (神明 *shenming*), is an on-going personal, professional and social responsibility.

Appendix A:

Glossary of Chinese terms, texts and names

Character/s	***Pinyin***	
八纲	***bagang***	eight principles (viz. *yin–yang*, internal–external, cold–hot, depletion–repletion) used to describe, categorise, identify manifestation types (illness patterns)
百合病	***baihe bing***	'Lily Disease', an emotion-related illness (first described in *Synopsis of Prescriptions from the Golden Cabinet*; originally *c*. 200 CE), so named because the principle herb in the *Golden Cabinet*'s treatment formula is *baihe* or lily bulb
悲	***bei***	grief, one of the seven affects / emotions
備急千金要方	***Beiji qianjin yaofang***	*Essential Prescriptions Worth a Thousand in Gold for Emergencies* (written by Sun Simiao *c*. 650 CE)
本草	***bencao***	*materia medica*, literally: 'herbal foundation' — a systematic listing of Chinese medical substances
本草纲目	***Bencao gangmu***	*The Great Pharmacopia*,1590 (written by Li Shizhen)
扁鹊	**Bian Que**	*c*. 500 BCE, the earliest known Chinese physician, his biography was documented in

		the Han dynasty Historical Records (*Shiji*)
辨病	***bianbing***	literally: 'identify diseases'; the first step in TCM diagnosis (see *bianzheng* below)
辩证	***bianzheng***	literally: identify pattern/s; the second step in TCM diagnosis (see *bianbing* above); manifestation type determination; distinguishing patterns
辩证论治	***bianzheng lunzhi***	determining treatment according to the patterns identified — the basis of TCM clinical reasoning
表里	***biaoli***	exterior and interior
病	***bing***	illness, sickness, disease; disorder; also 疾病 *jibing*
病机	***bingji***	illness mechanism; pathomechanism; the movement of a disease (through the body)
病理， 病理学	***bingli,*** ***binglixue***	pathology; literally: illness patterns or principles
出入	***churu***	exists and enters (the lung–*po* 'exists and enters' with the *jing*-essence)
腠理	***couli***	spaces and textures; interstices; skin structures, the patterns of the skin; see entries for *couli kai*, *zhili*, and *shuli*
腠理开	***couli kai***	(the human body may receive external pathogenic influences such as wind or cold, if) the skin structures have opened; see

		couli
丹溪心法	***Danxi Xinfa***	*The Essential Teachings of Danxi*, by Zhu Danxi, 1481
膻中	***danzhong*** **(also pronounced *tanzhong* and *shanzhong*)**	chest centre; *danzhong* is the *Suwen* Treatise Eight's twelfth official, nowadays translators substitute 'pericardium' for 膻中
道	***dao***	way, road, the way of nature
道德经	***Daode Jing***	*Classic of the Way and Virtue*, *c*. 460 BCE, attributed to Laozi
道法	***daofa***	the law of *dao*
道器	***daoqi***	the way and the vessel; potentials and concrete objects; immaterial and material aspects of reality
道象器	***daoxiangqi***	way image vessel; three levels of reality discussed in the *Book of Changes*' commentaries
道学	***daoxue***	Song neo-Confucianism; also known as the 'study of the Way'; the Confucian philosophers of the Song dynasty
丁德用	**Ding Deyong**	*Nanjing* scholar and commentator (fl. 1056–1063)
动	***dong***	move, movement
动气	***dongqi***	the moving or dynamic qi; driving influence

(肾闲) 动气	***(shenjian) dongqi***	the moving *qi* between the kidneys; synonymous with the lifegate (*mingmen*)
督脉	***dumai***	the governing vessel (GV), the 'sea of *yang*', one of the eight extraordinary vessels; the GV's main pathway ascends along the spine and its main function is to regulate the *yang* channels
发	***fa***	effuses, spreads up and outward
法	***fa***	methods, methodology
方	***fang***	formula(s) of medicinal substances
方法	***fangfa***	techniques, methods
方法论	***fangfalun***	methodology (as a theoretical investigation)
方士	***fangshi***	an adept, a gentleman of techniques / prescriptions
封藏	***fengcang***	seal and store (kidney function)
风	***feng***	wind — one of the pathogenic influences; mores, customs
服	***fu***	the *yang* internal organ systems, the hollow organs; the bowels
肝火	***ganhuo***	liver fire (manifestation pattern / illness)
膏肓	***gaohuang***	fatty, greasy membranes (in the *Lingshu* Treatise One); biomedically: the fascial or connective tissues

格物	***gewu***	investigation of things
刮痧	***guasha***	‘scraping’ — an external therapeutic technique
官	***guan***	office, administrative post, the *HDNJ*’s sensory organs, i.e., the eyes, ears, tongue (taste and speech), nose and skin
观	***guan***	comprehensive observation
观察	***guancha***	examination, inspection
规范化	***guifanhua***	(the process of) standardization (based on biomedical models)
汉朝	***Han chao***	Han dynasty, 206 BCE–220 CE (the Western Han, 206 BCE–9 CE, and Eastern Han, 25–220 CE)
寒	***han***	cold — one of the six *qi* (*liuqi*); one of the six external pathogenic influences
和	***he***	harmonise — a treatment strategy and method
后天	***houtian***	postnatal; literally: later heaven; worldly; the acquired or postnatal constitution, which is governed by the spleen and stomach (see *xiantian*)
黄帝甲乙经 / 甲已经	***Huangdi jiayi jing*; a.k.a. *Jiayi Jing***	*The Yellow Emperor’s Systematic Classic of Acupuncture and Moxibustion*, or *The A–B Canon*, *c*. 256–260, by Huangfu Mi

黄帝内经素问，灵枢	***Huangdi neijing suwen, lingshu***	*The Yellow Emperor's Canon of Internal Medicine Plain Questions, and Miraculous Pivot*, thought to have been originally compiled *c*. 100 BCE
皇甫謐	**Huangfu Mi**	215–282, author of the *Systematic Classic of Acupuncture and Moxibustion*
魂	***hun***	sentient soul, *yang* soul, ethereal soul; the liver stores the *hun*
魂魄	***hunpo***	the *yang* and *yin* souls; the sentient and corporeal souls
基础理论	***jichu lilun***	basic theory, theoretical foundations
解剖	***jiepou***	'cut open', and expression first introduced in the *Lingshu* Treatise Twelve; 解剖学 *jiepou xue* is 'anatomy'
津液	***jinye***	body fluids, thin and thick fluids
晉朝	***Jin chao***	Jin dynasty 265–420 CE
金匱要略	***Jingui Yaolue***	*Synopsis of Prescriptions of the Golden Cabinet*, written by Zhang Zhongjing, originally *c*.200 CE
精	***jing***	essence, a refined concentrate of *qi*; the term usually includes prenatal (inherited) and postnatal (acquired) *jing*; essence is stored in the kidneys and is responsible for growth, development, and reproduction
精神	***jingshen***	essence and spirit / mind

精神病	***jingshen bing***	mental illness
精气	***jingqi***	nutritive essence; essential influences
精神实质	***jingshen shizhi***	spirit / mind and essence
经	***jing***	circulation tract/s, channel/s or meridian/s; classic or canonical texts
经文	***jingwen***	canonical text/s
经络	***jingluo***	the channel system, channels and network vessels, the system of channels and collaterals — the pathways carrying *qi* throughout the body
经脉	***jingmai***	channels and vessels, circulation tract/s
厥阴	***jueyin***	reverting *yin*, attenuated *yin*, ceasing *yin* — one of the six channels (*liujing*); the upper and lower (hand and foot) parts of the channel today are the pericardium and liver channels
君子	***junzi***	gentleman; exemplary person; literally: lord's son
君火	***junhuo***	sovereign fire; heart fire
考证	***kaozheng***	evidential research, evidential scholarship
克	***ke***	control; check; a term used for the five phases' controlling or grandmother–grandchild cycle — the cycle shows the kind of *qi* movement and transformation that regulates the functional relationships

		between alternate phases
科学化	***kexuehua***	scientisation, to scientise
孔子	**Kongzi**	Confucius, 551–491 BCE, author of *The Analects*
老子	**Laozi**	dates unknown, sixth century BCE, thought to have written the *Daode Jing*
类	***lei***	kind, category
李东垣	**Li Dongyuan**	1180–1251, author of the *Piwei Lun*
李时珍	**Li Shizhen**	1518–1593, author of the *Bencao Gangmu*
礼	***li***	rite, ritual, propriety (a prominent feature of Confucian social requirements)
里	***li***	interior, internal (opposite of 表 *biao*)
理	***li***	patterns, principles; the patterned regularity of existence; reason
理论	***lilun***	theory; principles
理论基础	***lilun jichu***	theoretical foundation(s)
理势	***lishi***	logical tendency
灵枢经	***Lingshu Jing***	*Miraculous Pivot Classic*; the second part of the *Huangdi Neijing* (*HDNJ*), comprised of 81 treatises; a.k.a. *Canon of the Spiritual Axis*, *Canon of the Numenous Pivot*
灵活	***linghuo***	flexible, adept, sensitive, efficacious,

		virtuoso
刘长林	**Liu Changlin**	1960– , the author of The Philosophy of the Inner Cannon and the Methods of Chinese Medicine (内经的哲学和中医学的方法, 1982, in Chinese)
刘完素	**Liu Wansu**	1110–1200 CE, investigated the role of fire and heat in pathogenesis, and prescribed cold natured herbs to treat fire / heat illness patterns
六经	***liujing***	six channels; six warps; six conformations, six divisions
六淫	***liuyin***	six excesses; the excess or untimely external (environmental) factors (cold, wind, heat, dryness, dampness) that injure or 'invade' the body surface causing illness
虑	***lü***	planning and strategy, deliberation, consideration — the consideration about the past and present, the consideration about the future based on the present
论	***lun***	treatise, discussion
论语	***Lun Yu***	The Analects of Confucius (*c*. 500 BCE)
脉	***mai***	vessels, the movement in the vessels
脉经	***Maijing***	*Pulse Classic* (*c*. 250 CE), by Wang Shuhe
毛泽东	**Mao Zedong**	1893–1976, founding leader of the People's Republic of China (1949–)

孟子	**Mengzi**	Mencius, *c*. 372–289 BCE
梅核气	***meheqi***	‘plum pit qi’, an emotion-related illness whose characteristic feature is the sensation of something lodged in the throat; *globus hystericus*
明朝	***Ming chao***	Ming dynasty,1368–1644
明	***ming***	brightness, radiance
命	***ming***	life, destiny, fate
命门	***mingmen***	lifegate, or gate of vitality (see *Nanjing*, Difficulty 36, and 66); the root of source *qi*, and the true *yang*, *mingmen* is often associated with the *yang* kidney
难经	***Nanjing***	*The Classic of Difficult Issues*, *c*. 100 CE, one of CM’s classic texts. Many of the ‘issues’ discussed in the *Classic of Difficult Issues* are from the *Neijing*.
内因	***neiyin***	internal causes
脾胃论	***Piwei Lun***	*Treatise on the Spleen and Stomach*, by Li Dongyuan (Li Gao) in the thirteenth century
魄	***po***	*yin* soul; corporeal soul; animal soul
七情	***qiqing***	the seven emotions / affects / emotional states: joy, anger, sorrow, worry, grief, apprehension, fear
气	***qi***	in medicine, ‘*qi*’ refers to physiological activities, transformations, movements,

		substances and process events; translations include: influences, configurational energy, energetic configuration; air, breath; vitalities, energies; physiological structure
气道	***qidao***	*qi* pathway; for example, the *sanjiao*'s '*qi* confluence' function
气化	***qihua***	*qi* transformations
气机	***qiji***	*qi* movement
奇恒之腑	***qiheng zhifu***	the six miscellaneous or 'extraordinary' *fu* (see Table 5.1), the brain, uterus, bones, marrow, blood vessels and gallbladder
器	***qi***	vessel, container, thing, object, device
千金要方	***Qianjin Yaofang***	*Essential Prescriptions Worth a Thousand in Gold* (written by Sun Simiao *c*. 652)
千金翼方	***Qianjin Yifang***	*Supplementary Wings to the Prescriptions Worth a Thousand in Gold* (written by Sun Simiao)
窍	***qiao***	orifice, opening, aperture; *kaiqiao* — vents at (eg. the liver vents at the eyes)
秦朝	***Qin chao***	Qin dynasty, 221 BCE –207 BCE
秦始皇	**Qin Shihuang**	king of the State of Qin from 246 BCE, Qin Shihuang became the first emperor of a unified China in 221 BCE
秦伯未	**Qin Bowei**	1901–1970, clinician, writer, educator, one

		of the most respected and influential physicians in twentieth century China
清	***qing***	clear; 清气 *qingqi* is clear or pure *qi*; opposite of turbid (浊 *zhuo*)
情	***qing***	disposition, affect, emotion, temperament
情志	***qingzhi***	disposition, emotional state
情志病	***qingzhi bing***	emotion-related illness
清朝	***Qing chao***	Qing dynasty, 1644–1911
热	***re***	heat
热病	***rebing***	fever, febrile disorders
仁	***ren***	humanity, benevolence — a Confucian virtue
认识	***renshi***	to recognize, know, to discern
认识方法	***renshi fangfa***	epistemic method
认识论	***renshilun***	epistemology
任脉	***renmai***	controlling vessel, conception vessel, the 'sea of *yin*' — one of the eight extraordinary vessels
儒	***ru***	Confucian scholar
儒家	***rujia***	Confucian school
儒将	***rujiang***	Literally: Confucian (scholarly, learned)

		general. In the *HDNJ* (*Suwen* Treatise Eight), the liver is likened to the office of a learned general
儒医	***ruyi***	gentleman doctor, Confucian doctor, scholarly doctor
三宝	***sanbao***	three treasures / gems / mysteries; *jing*, *qi* and *shen* are the three treasures of Daoist inner cultivation practices and the CM body
三才	***sancai***	the three powers, the three levels of existence (see *tian ren di*)
三焦	***sanjiao***	the *sanjiao* or triple burner is one of the six *fu* (*yang* internal organ systems), the *yang* channel partner of the pericardium (fire), the upper channel partner (*shaoyang*) of the gallbladder
伤	***shang***	injury, damage
伤寒	***shanghan***	cold damage (a febrile illness caused by environmental cold 'invading' the body surface)
伤寒论	***Shanghan Lun***	*Treatise on Cold Damage* or the *Treatise on Febrile Diseases Caused By Cold*, by Zhang Zhongjing (originally *c*. 200 CE)
伤寒杂病论	***Shanghan zabing lun***	*Treatise on Cold Damage and Miscellaneous Diseases* (*c*. 200 CE), the original text by Zhang Zhongjing. In the Western Jin (265–316) Wang Shuhe reorganised it into the *Shanghan Lun* and the *Jingue Yaolue.*

少火	***shaohuo***	mild or small fire (a term from the *HDNJ*), the physiological fire burning in the kidney–lifegate area that maintains *qi* (physiological) processes
少阳	***shaoyang***	lesser *yang* (the *sanjiao*–gallbladder channels) — one of the six channels (*liujing*), the 'hinge' between the *taiyang* and *yangming*
少阴	***shaoyin***	lesser *yin* (the heart–kidney channels) — one of the six channels (*liujing*)
身	***shen***	body, self, person, whole person
身体	***shenti***	body–person
神	***shen***	mind, spirit(s), vitality, mental state, conscious awareness
神明	***shenming***	spirit / mind brightness, intelligence; refers to the characteristics of divine beings that allow spirit-like wisdom, sharpness and clarity of perception rather than mechanical or analytical intelligence
神志	***shenzhi***	the mind, human mentality
神志	***shenzhi***	mind, mental, state of mind
神志病	***shenzhi bing***	mind-related illness
生	***sheng***	life; engender (the five phases' engendering or mother–child cycle represents the movement and transformation of *qi* from

		one phase to the next)
生理	***shengli***	physiological
生理学	***shengli xue***	physiology
生理活动	***shengli huodong***	physiological activity
势	***shi***	power, circumstance, position, propensity and potential
疏道	***shudao***	dredge, course, clear out
疏理	***shuli***	open skin structures (see *couli*)
疏泄	***shuxie***	dredge / course and discharge / secrete, a function of the liver system
水道	***shuidao***	the watercourses, fluid metabolism managed by the *sanjiao*
思	***si***	thinking, pensiveness, contemplation, cogitation
四诊	***sizhen***	the four examinations or methods of diagnosis
宋朝	***Song chao***	Song dynasty, 960–1278
宋慈	**Song Ci**	(or Sung T'zu) 1186–1249; a Song dynasty medical expert; he wrote *The Washing Away of Wrongs* (*Xi Yuan Ji Lu*; *Collected Cases of Injustice Rectified*), first published 1247

素问	***Suwen***	*Simple Questions* or *Plain Conversation,* comprised of eighty-one treatises, the first part of the *HDNJ*
孫思邈	**Sun Simiao**	581–682; author of the *Important Prescriptions Worth a Thousand Gold Pieces* (*Qianjin yaofang*) and the *Supplementary Prescriptions Worth a Thousand Gold Pieces* (*Qianjing yifang*)
孫一奎	**Sun Yikui**	1538–1600. In the Ming (1368–1644), physicians such as Sun Yikui located the *sanjiao* in the greasy membrane of the diaphragm. He explained that the *sanjiao qi* steamed the diaphragm and reached out to the skin and flesh, and 'setting everything around it in motion' (cited in Fruehauf, 2008).
太素	***Taisu* (*Huangdi Neijing Taisu*)**	*Grand Basis*, (*Yellow Emperor's Inner Canon, Grand Basis*) thought to have been compiled by Yang Shangshan, *c*. 656 or later, from fragments of one or several post-Han versions of the *HDNJ*. The *Taisu* is one of four known versions of the *HDNJ*, the other three being the *Suwen*, the *Lingshu*, and the partially extant *Mingtang* (*Hall of Light*).
太阳	***taiyang***	greater *yang* (bladder–small intestine) — the most exterior of the six channels (*liujing*)
太阴	***taiyin***	greater *yin* (lung–spleen) — one of the six channels (*liujing*)
唐朝	***Tang chao***	Tang dynasty 618–907

体	***ti***	the limbs, the body, parts of the body, body tissues, the intrinsic qualities of a thing
体用	***tiyong***	substance / stuff and function; manifestation as embodiment; essence put into action
天人地	***tian ren di***	heaven–humanity–earth, the *sancai*
调	***tiao***	harmonise, regulate, attune, adjust, balance; a carefully managed process of adjustment
圖	***tu***	graphic representations
王冰	**Wang Bing**	*c*. 710–805, edited the *HDNJ* in 762
王清任	**Wang Qingren**	1768–1831, wrote the *Correcting the Errors In the Forest of Medicine* (*Yilin Gaicuo*) in 1830
王叔和	**Wang Shuhe**	*c.* 180–270, author of the *Pulse Classic* (*Maijing*), re-organised Zhang Zhongjing's *On Cold Damage and Miscellaneous Disorders* (*Shanghan Zabing Lun*) into the *Treatise On Cold Damage* and the *Synopsis of the Golden Cabinet*
往来	***wanglai***	comes and goes (the liver–*hun* 'comes and goes' with the heart–*shen*)
望色	***wangse***	observing (one of the four diagnostic methods), literally: observing colours; the diagnostic gaze
望闻问切	***wang wen***	the four diagnostic methods: observe, smell

	wen qie	and listen, question, palpate; the four diagnostic examinations or 'approaches' look (at a patient's complexion), smell (their breath) and listen (to their voice), ask (them about their condition), and feel (their vessels to palpate the movement within them)
	Warring States period	475–221 BCE (see entry for *Zhangguo* below)
卫气	***weiqi***	defence *qi*
问	***wen***	ask, question (one of the four diagnostic examinations)
闻	***wen***	listening / smelling (one of the four diagnostic examinations)
无形	***wuxing***	no form, formless, intangible
五官	***wuguan***	five offices or sense organs
五神	***wushen***	five spirits, five minds
五体	***wuti***	five body tissues
五行	***wuxing***	five phases; five transformative phases; five transformations; five elements; five agents: an early conceptual model describing categories of *qi* quality, relationship, movement and transformation
五脏	***wuzang***	the five *yin* visceral systems
五运六气	***wuyun liuqi***	the five circulatory phases and six climatic

		influences
五志	***wuzhi***	the five wills; five minds (referring to the 'state of mind' or disposition); five inclinations; five emotions;
五志化热	***wuzhi huare***	Liu Wansu developed the theory that the five emotions transform into / produce heat
物质	***wuzhi***	substance, substantial
西医	***xiyi***	Western medicine (biomedicine)
系统化	***xitonghua***	(the process of) systemization (based on biomedical models)
洗冤錄	***Xiyuan Lu***	*The Washing Away of Wrongs*, 1247 by Song Ci (宋慈 1186–1249), a Song dynasty medical expert; the oldest text on forensic or legal medicine; also called, *Xi Yuan Ji Lu* (*Collected Cases of Injustice Rectified*), or *Annals of the Reparation of Injustices*
先天	***xiantian***	inherited, pre-heavenly, earlier heaven; the congenital or prenatal constitution, inherited from one's parents, governed by the kidneys (see *hou tian*)
现代化	***xiandaihua***	modernisation
象	***xiang***	image, external appearance, visible form
相火	***xianghuo***	minister fire; the fire of the lifegate (命门 *mingmen*); ministerial fire
相火妄动	***xianghuo***	pathogenic minister fire (liver and kidney yin

	wangdong	vacuity causing flaming up of liver fire and kidney vacuity fire)
相 生	***xiangsheng***	engendering cycle the *sheng* cycle, the wuxing ‘mother-child’, or nurturing, sequence
邪	***xie***	evil, noxious, askew, pernicious, heterodox, heteropathic
邪气	***xieqi***	literally: evil *qi*; pathogenic *qi*; heteropathic *qi*; any *qi*-influence that threatens health (opposite of *zhengqi*)
泄	***xie***	draining and secreting; releasing; therapeutic method for moving *qi* stagnation, other methods include dredging (*shu* 疏), dispersing (*jie* 解), and draining (*tong* 通)
心	***xin***	heart; mind; heart–mind
心神	***xinshen***	the postnatal heart–spirit / mind
心包	***xinbao***	the pericardium
心包络	***xinbaoluo***	heart enclosing network; heart protector; today, known as the pericardium
心主	***xinzhu***	heart ruler; heart governor; heart master; heart protector; today, known as the pericardium
行	***xing***	movement, spread, carry out
性	***xing***	human nature; an individual’s basic nature

		— every person is a unique unity of psycho-physical dispositions (性)
形	***xing***	form; body form
形体	***xingti***	material form, the body
形神	***xingshen***	body form and spirit / mind
胸	***xiong***	the mind; literally, breast or bosom
修身	***xiushen***	self cultivation, refinement or cultivation of the self
虚	***xu***	vacuity, weakness, depletion, emptiness
虚劳	***xulao***	vacuity and fatigue
血	***xue***	blood, one of CM basic physiological substances
荀子	**Xunzi**	*c*. 312–230 BCE, Warring States period Confucian philosopher
徐大椿	**Xu Dachun**	1693–1771; author and physician
颜色	***yanse***	colour; countenance; facial expression
阳明	***yangming***	*yang* brightness (stomach–large intestine) — one of the six channels, the deepest of the three *yang* channels
阳维脉	***yangwei mai***	the *yang* linking vessel, one of the eight extraordinary channels
杨用道	**Yang**	twelfth century, author of commentaries on

	Yongdao	the *Nanjing*
养生	***yangsheng***	cultivating life, nourishing life
养气	***yangqi***	*qi* cultivation practices
叶天士	**Ye Tianshi**	1667–1746, one of the most influential doctors in the history of Chinese medicine
易经	***Yijing***	*The Book of Changes*, *c*. 700 BCE; it is said that Fu Xi (伏羲 *c*. 3000 BCE), one of China's legendary chieftains, and Wen Wang (文王 1099–1050 BCE), the founder of the Zhou dynasty (1046–221 BCE), were among its authors
易傳	***Yi Zhuan***	Commentaries of the *Yi* [*Jing*] (*Book of Changes*)
医道	***yidao***	the way of medicine
医林改错	***Yilin Gaicuo***	*Correcting the Errors In the Forest of Medicine* (1830) by Wang Qingren
医学	***yixue***	medicine
义	***yi***	justice, dutifulness, righteousness, morality; a Confucian virute
意	***yi***	ideation, reflection, ideas, intention, cognition; the spleen stores the *yi*
阴维脉	***yinwei mai***	the *yin* linking vessel, one of the eight extraordinary vessels
應	***ying***	resonance

营气	***yingqi***	nutritive *qi*, construction *qi*; the *yin* partner of the *weiqi*
有形	***youxing***	that which has form, tangible, formed (see *wuxing*)
郁	***yu***	constrained, depressed; deficient and stagnant; obstructed
郁证	***yuzheng***	constraint pattern, binding depression pattern
元	***yuan***	original, primal, first, beginning
元神	***yuanshen***	the original or primal *shen*; the original *shen* arises at the beginning of life, and is stored in the square inch between and behind the eyes
元朝	***Yuan chao***	Yuan dynasty, 1206–1386
原	***yuan***	source, origin
原神	***yuanshen***	source *shen*; the source *shen* gives rise to the primal *shen*, and is stored in the kidneys–lifegate
恽铁樵	***Yun Tieqiao***	1878–1935; one of the early twentieth century's advocates for the integration of Chinese and Western medicines
脏	***zang***	*yin* internal organ system/s; literally, a coffer where treasures are stored; the the *HDNJ* the character is 藏

脏腑	***zangfu***	viscera and bowels, the solid (*yin*) and hollow (*yang*) organ systems of the chest and abdomen
脏器学	***zangqi xue***	medical investigation with a quantitative-materialist perspective
脏象	***zangxiang***	visceral systems imagery; visceral manifestations; also written '藏象' using the original complex character from the *HDNJ*
脏象学	***zangxiang xue***	medical investigation with a functional–processual perspective; also written '藏象学'
脏躁	***zangzao***	'visceral agitation', the name of an emotion related illness that first appeared in the *Jingui Yaolue*, originally c. 200 CE
战国	***Zhangguo***	Warring States period, 475–221 BCE
张介宾	**Zhang Jiebin**	1560–1639, Ming scholar–physician, author of the *Classified Classic* (类经 *Leijing*) in 1624
张机	**Zhang Ji**	(see Zhang Zhongjing)
张仲景	**Zhang Zhongjing**	(style name for Zhang Ji) 150–219 CE, author of the *Treatise on Cold Damage and Miscellaneous Disorders* (伤寒杂病论 *Shanghan Zabing Lun*) *c*. 200, nowadays in the form of two books: *Treatise On Cold Damage* (伤寒论 *Shanghan Lun*) and *Essential Prescriptions of the Golden Cabinet* (金桂要略 *Jingui Yaolue*)

张锡纯	**Zhang Xichun**	1860–1933, one of China's great scholar physicians. He is primarily remembered for his prominent role in spearheading the early movement of Chinese–Western medicine integration during the first three decades of the twentieth century
趙獻可	**Zhao Xianke**	1572–1643, author of the *The Pervading Link of Medicine* (医贯 *Yi Guan*) in 1617, 'the pervading link' was the *mingmen* fire
针灸	***zhenjiu***	acupuncture moxibustion, or acu-moxa
正	***zheng***	correct, square, orthodox, proper, orthopathic, rectitude
正气	***zhengqi***	orthopathic qi, right qi, upright qi, anti-pathogenic qi (opposite of *xie qi*)
征	***zheng***	sign(s) of illness
症	***zheng***	symptom(s) of illness
证	***zheng***	evidence; illness patterns; syndromes
治	***zhi***	treat, cure; administer, govern
志	***zhi***	mind, will, understanding, determination, memory; mind, emotion, disposition; *zhi* is housed in the kidneys; associated with determination, direction, presence of mind, and the ability to think, feel and respond
質	***zhi***	basic disposition
知	***zhi***	consciousness, know, be aware of,

		knowledge
智	***zhi***	wisdom, moral intelligence, the management of different things according to consideration (*lu*)
中西医结合	***Zhongxiyi jiehe***	integrated Chinese and Western medicine
中医	***Zhongyi***	Chinese medicine
周敦颐	**Zhou Dunyi**	1017–1073, neo-Confucian philosopher
主	***zhu***	to rule, govern, host; to unfold or ramify outward (as in visceral systems imagery)
主观	***zhuguan***	subjective
朱丹溪	**Zhu Danxi**	1281–1358, Yuan scholar–physician (also known as 朱震亨 Zhu Zhenheng)
朱熹	**Zhu Xi**	1130–1200, a Song dynasty (960–1279) Confucian scholar, the leading figure of the School of Principle and the most influential rationalist neo-Confucian in China; wrote the *Family Rituals* (家禮 *Jiali*) in 1169
浊	***zhuo***	turbid, murky, unclear (opposite of clear 清 *qing*)
自然	***ziran***	'self-so'; spontaneous self-generation; the unceasing, spontaneous generativity of the cosmos; effortlessness, quietude, simplicity and emptiness (*Daode Jing*); nature, natural
驺衍	**Zou Yan**	*c*. 350–270 BCE, the philosopher who is reputed to have formulated the five phase

conceptual framework (and whom many *fangshi* regarded as an ancestral father)

Appendix B:

Abbreviations

Abbreviation	Term/s in full
BL	bladder (abbreviation used for bladder channel acupoints, eg BL23 and BL22)
BM	biomedicine
CM	Chinese medicine
DSM–IV	the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, version IV
EBM	evidence based medicine
GV	governing vessel (abbreviation used for governing vessel acupoints, eg. GV4 and GV20)
HDNJ	*Huangdi Neijing* (黄帝内经 *The Yellow Emperor's Classic of Internal Medicine*)
IBS	irritable bowel syndrome
ICD–10	the World Health Organisation's *International Statistical Classification of Diseases and Related Health Problems*, *10th Revision*
PRC	People's Republic of China
TCM	Traditional Chinese Medicine
WM	Western medicine

Appendix C:

China's dynasties and relevant medical texts, authors and physicians

Dynastic period	Dates	Physician / author	Text
Zhou	1027–475 BCE		
	c. 700 BCE		*The Book of Changes*
	(sixth century)	Laozi	
	551–491 BCE	Confucius	
	c. 500 BCE	Bian Que	
Warring States	475–221 BCE		
	4th century BCE		[the *Yin–Yang* school]
	c. 372–289 BCE	Mengzi	
	c. 350–270 BCE	Zou Yan	
	c. 312–230 BCE	Xunzi	
Qin	**221–207 BCE**		
Han	**206 BCE–220 CE**		
	c. 100 BCE		*The Yellow Emperor's Inner Canon* (*HDNJ*)
	c. 100 CE		*The Classic of Difficult Issues* (*Nanjing*)
	150–219 CE	Zhang Zhongjing	*Cold Damage and Miscellaneous Disorders*(*c*. 200 CE)

Three Kingdoms	**220–280**		
Jin	**265–479**		
Northern and Southern	**479–581**		
Sui	**581–618**		
Tang	**618–907**		
	581–682	Sun Simiao	*Important Prescriptions Worth a Thousand Gold Pieces,* and *Revised Prescriptions Worth a Thousand Gold Pieces*
	c. 710–805	Wang Bing	
Five dynasties	**907–960**		
Song	**960–1279**		
	1017–1073	Zhou Dunyi	neo-Confucian philosopher
Jin	**1115–1234**		
	1130–1200	Zhu Xi	neo-Confucian scholar
	1186–1249	Song Ci	*The Washing Away of Wrongs* (1247)
Yuan	**1279–1386**		
	1281–1358	Zhu Danxi	
Ming	**1368–1644**		
	1518–1593	Li Shizhen	
	1538–1600	Sun Yikui	
	1560–1639	Zhang Jiebin	*The Classified Classic* (1624)
	1572–1643	Zhao Xianke	*The Pervading Link of Medicine* (1617)

Qing	**1644–1911**		
	1667–1746	Ye Tianshi	
	1693–1771	Xu Dachun	
	1768–1831	Wang Qingren	*Correcting the Errors in the Forest of Medicine* (1830)
	1860–1933	Zhang Xichun	
Republic of China	1911		
Peoples' Republic of China	1949		
	1901–1970	Qin Bowei	

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