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A Cognitive Anthropology through Chinese Divination



William Matthews

Cosmic Coherence

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A Cognitive Anthropology through Chinese Divination



William Matthews



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This book is dedicated to the memory of Master Tao Songhe, teacher and friend, without whom it would not have been possible.

谨以此书给我的朋友和老师陶松鹤师父。本书完成离不开他的帮助。

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PREFACE



Searching for a suitable site to conduct my PhD fieldwork in summer 2013, I spent several days in the Hunanese capital, Changsha. My original proposal had been to investigate the relationship between cosmological ideas and practices of ‘nourishing life’ (yangsheng) in the context of a reviving teahouse culture. But this changed when my partner and I went to visit one of Changsha’s main temples, and impulsively decided to consult one of the diviners operating in the street nearby.

Prior to this, I had not given Chinese divination much thought, though I was vaguely aware of the ‘eight characters’ (bazi), referring to the year, month, date and two-hour period of one’s birth, which could be used to derive a broad picture of one’s fate. And having studied Chinese history and culture over several years, I was aware of the Yijing and its significance. Looking back, that day in Changsha sparked a deeper interest that would ultimately lead me to abandon my teahouse project and focus instead on cosmology and divinatory reasoning. My real interest, even with the tea project, was cosmology, and how individuals develop cosmological theories and then apply them to understand the world; divination promised a more intriguing way in.

The diviner’s shop was fairly small, and he sat at a desk to the right of the entrance, the wall behind him covered in cosmological charts and a list of prices. Knowing little of what to expect, I asked for the cheapest consultation, which turned out to be based on bazi. Once I had told the diviner my date of birth, he spent some time carefully annotating my bazi and drawing up a picture of my fate divided into ten-year periods, replete with cosmological terms I barely understood.

At the time, I lacked the knowledge of correlative cosmology necessary to understand much of the underlying logic of the diviner’s diagnosis. What he told me, though, was very positive. I would be rich and successful. Beyond that, I remember few of the specifics, save that my forecasted future financial windfalls prompted the diviner to insist I pay him several times the original consultation fee, as in time I would easily be able to afford it. Thus, in this first encounter with divination I was also exposed to one of the most common points of (contested) criticism that it attracts from non-diviners – that it is fundamentally about ‘swindling people’ (pianren).

Nonetheless, I was drawn in by the clear complexity and sophistication of the divination system, and in particular by its reliance on the intricate relationships between successive layers of correlated cosmological

principles (this much was evident from the consultation, even if I did not understand what the principles were). This marked it out distinctly from previous encounters I had had with the ‘mantic arts’, generally in the form of newspaper horoscopes and tarot cards – methods which, while clearly psychologically useful as decision-making aids, appeared to me to rely very much on reading one’s own meaning into them. My curiosity was piqued further through a long conversation with a friend in Chengdu, who confirmed to me what I had already intuitively decided: that researching divination would prove considerably more interesting than researching teahouses, at least to me.

The city I eventually decided on for fieldwork, based primarily on its fame for the production, sale and consumption of longjing green tea, and not at all for its general scenic beauty, delicious cuisine and accessibility, was Hangzhou, the capital of east China’s prosperous Zhejiang province. I returned to Hangzhou in September that same year to commence fieldwork, fully intending to turn my tea project into something much more about fate and the cosmos. I began by familiarising myself with the main Buddhist and Daoist temples in the city, though it was my flatmate’s offer to take me to a large but less well-known Buddhist temple by the Grand Canal that proved decisive. There, I got to know several volunteers whom I would subsequently visit most Wednesday mornings, when we would discuss fate, divination and belief, primarily from their Buddhist perspective. After one of our earlier meetings I took a walk along the canal, down a pedestrian street where I noticed a diviner sitting at the roadside.

The next time I came by, I approached him and explained that I was interested in learning about divination, how it worked, and its history and position in contemporary society. Master Tao invited me to sit with him, and was keen to explain his craft to an interested foreigner. He used a system of divination known as ‘six lines prediction’ (liuyao yuce) based on the hexagrams of the Yijing, combined with the correlative cosmology underlying the bazi method. Master Tao told me that he worked there every day, that I was welcome to shadow him as he consulted and that he would

teach me the key principles during the quieter periods. During the eight months or so I spent in Hangzhou from 2013–14, and the return visits I made in 2015 and 2018, I spent several days a week with Master Tao and got to know several of his students and many of his regular clients. Through these contacts and friendships, I got to know others with whom I spent much of the rest of the time, including the diviner and fengshui master Ma Jianglong.

It is largely thanks to Master Tao, and his generosity and patience, that this book exists at all. Over the course of fieldwork and subsequent return visits he became not only my key interlocutor, but a wonderful teacher and friend whose ideas not only informed me about Chinese cosmology but have shaped my own thinking about anthropological knowledge. It was with great sadness that I learned he had died in early 2019. He is greatly missed, and this book is dedicated to him.

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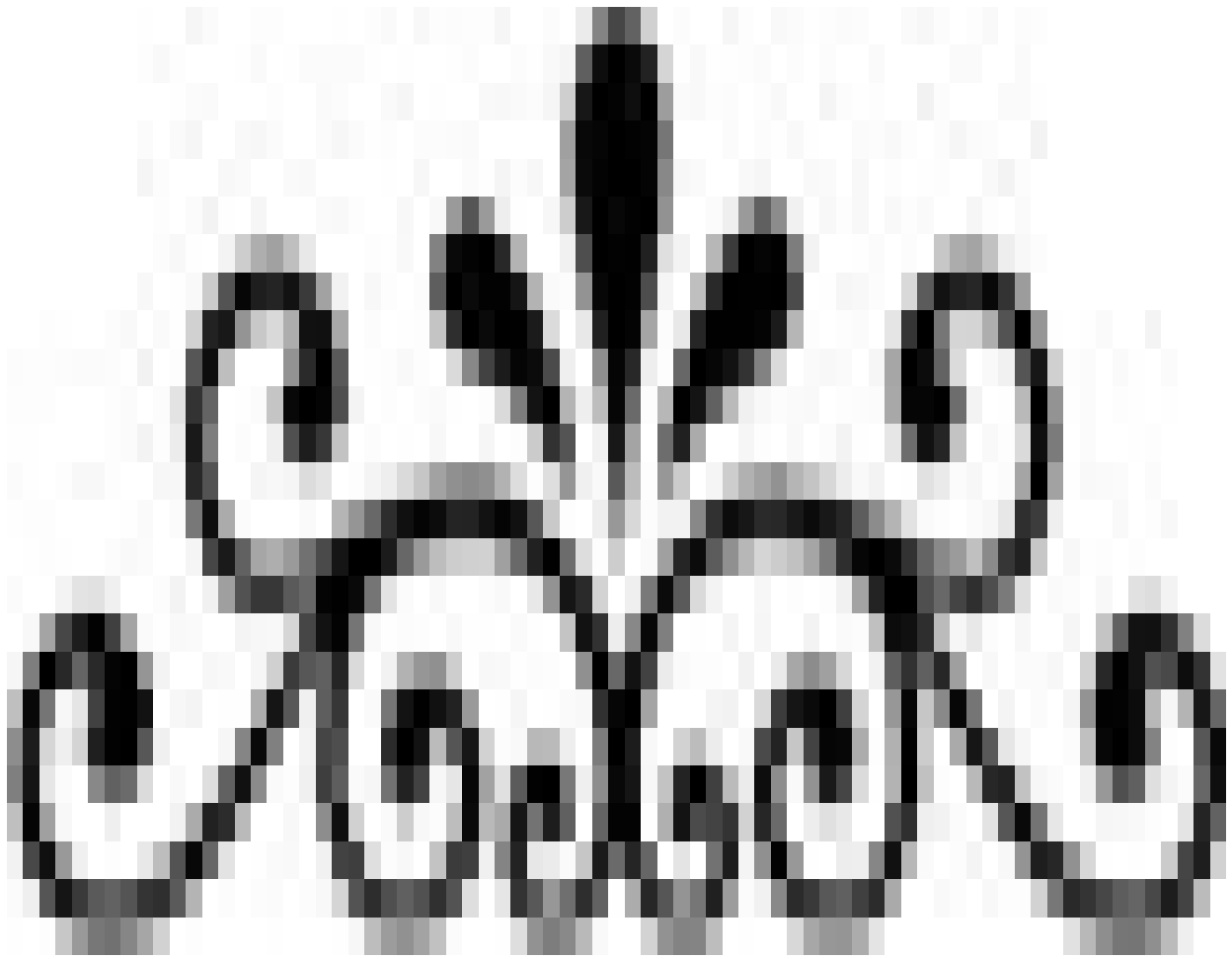
I am first and foremost supremely grateful to Master Tao Songhe and Ma Jianglong, who introduced me to Yijing divination, put up with my incessant questions, became great friends of mine and influenced my theoretical ideas; my gratitude goes also to Xiaoping, Chang Weihong, Li Xinghua, Duan Qingping and everyone else I met in Hangzhou and who welcomed me during fieldwork for this project. Special thanks are due to Hans Steinmüller and Stephan Feuchtwang, whose unfailingly generous advice, mentorship, critique and friendship over the years with this project has been invaluable. I thank everyone who has had some impact on the project over the last seven years. In particular, my thanks to Allen Abramson, Rebecca Empson and

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I also want to acknowledge the inspiration I have gained through the work of many of the authors I engage with in this book – notably Pascal Boyer, Philippe Descola, Martin Holbraad and Michael Scott, even when (and because) in some cases I strongly disagree with them. Their ideas have shaped the way I have addressed this book's questions and have provided entry into valuable lines of enquiry, and the book would not have been the same otherwise.

This work was supported by the Economic and Social Research Council (grant number S/J500185/1), whom I thank for provision of full funding. My thanks also to the two anonymous reviewers for their comments and suggestions.

NOTES ON TEXT



Transliteration and Terminology

Romanisations are given in pinyin. In the case of extended quotations, such as those from texts, only the traditional characters and English translation are provided in the main text, with pinyin transliterations provided in the Notes. The only occasions on which simplified characters are used are instances of direct quotation from a text produced in simplified characters. Traditional characters have been favoured given the book's engagement with classical Chinese texts.

Names

With the exception of those individuals who expressed a wish for me to use their real names, all names of individuals I met during fieldwork are pseudonyms.

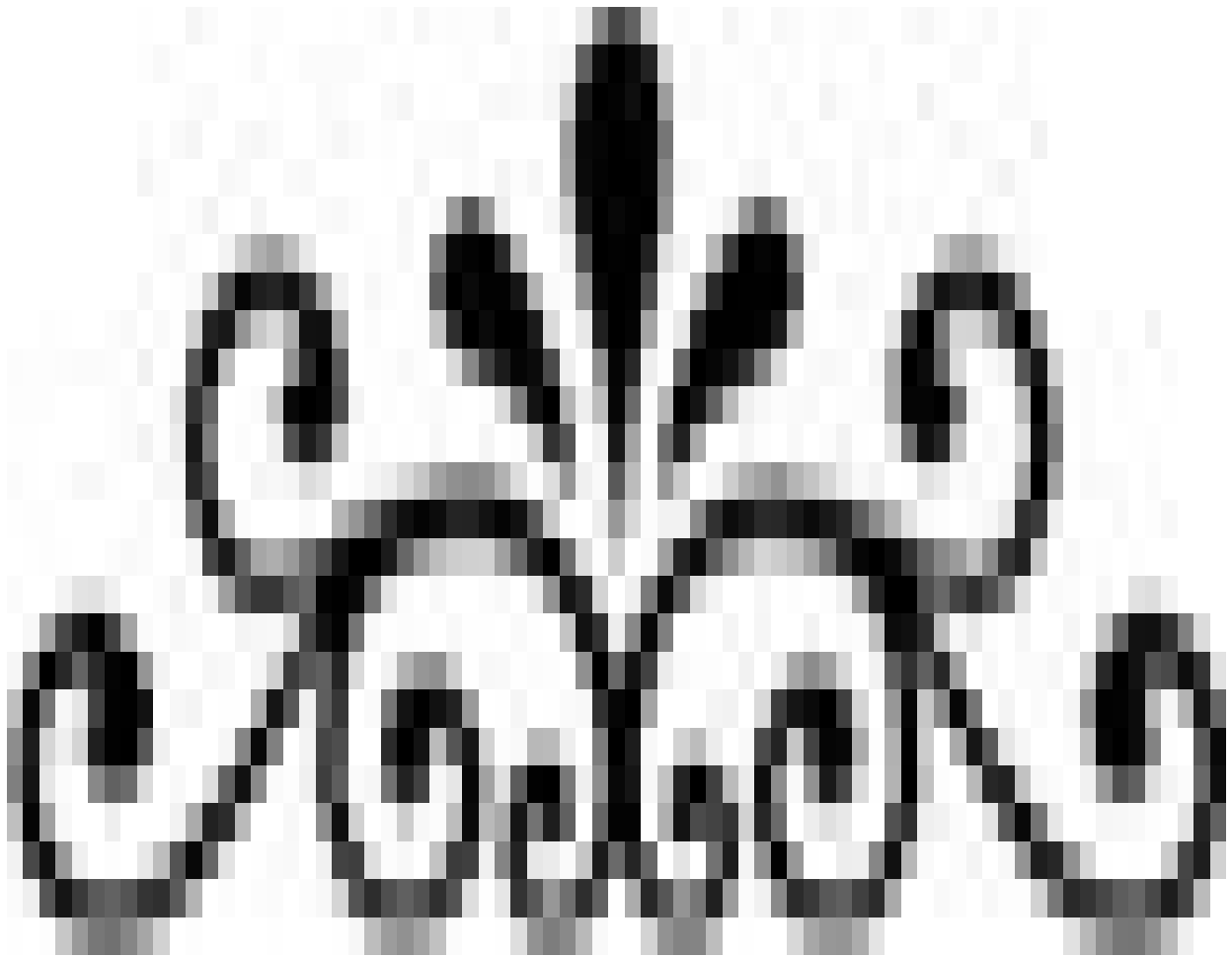
‘Evolved Capacities’

At various points in this book, I discuss evolved capacities or propensities, primarily in relation to cognition. For various reasons, discussion of evolution in social anthropology can be misinterpreted, or met with hostility, particularly given the discipline’s own fraught history with early evolutionary-inspired but false ethnocentric approaches to different societies, and the misapplication of evolutionary ideas to, for example, questions of ‘race’. Neither of these approaches is representative of current understandings of human evolution. For the avoidance of doubt, I use ‘evolutionary’ in this book to refer to the evolved capacities or propensities of humans – that is, the features of human behaviour that mark us out as a species that has evolved under certain conditions. An adequate explanation of human behaviour, including ‘culture’, needs to be consistent with our knowledge of these capacities (which necessarily makes certain behaviours, for instance, more or less likely under certain circumstances, and some explanations highly unlikely). Throughout the book I emphasise that this hinges on the dynamic capacity of all humans to learn and develop in relation to the environment (as opposed to a fixed ‘human nature’, meaning that any dichotomy between ‘nature’ and ‘culture’ or ‘nurture’ is misleading). I am not suggesting that any single sociocultural practice, for example, is necessarily best explained as an adaptive product of natural selection (I would absolutely not argue, for example, that ‘cosmological coherence has evolved because it increases fitness’, but rather that evolved

general features of human cognition make certain ways of thinking about the world more likely under particular environmental circumstances).

INTRODUCTION

Getting Our Ontological Assumptions Right



How is it that we are able to take our experience and knowledge of the world and render it coherent? Humans are apparently unique in the degree to which they consciously organise experience into overarching sets of beliefs and principles about the universe, according to which all the contingencies and irregularities of life can be made sense of; that is, in anthropological terms,

humans are remarkably concerned with cosmology. In what is now China, since the last few centuries BCE, many people have attempted to make sense of the cosmos by understanding it in terms of constant principles of change, correlating all beings and sensible phenomena in relation to one another in a complex, unified system that allows navigation of the world and prediction of what will happen next. This book examines this cosmological tradition historically and in contemporary practice, in order to address the question of how cosmological thought can be analysed as an aspect of human behaviour.

In social anthropology, this capacity for people to organise knowledge and experience into a coherent cosmology has often been taken at face value. Practices of ritual, kinship, exchange, morality, warfare or whatever other sphere of human activity have all been understood by anthropologists at some point as obtaining their character from the cosmological beliefs shared by the group or ‘culture’ in question. Indeed, in his monumental work *Beyond Nature and Culture* (2013), anthropologist Philippe Descola gives explicit voice to this, arguing that the cultural variation we see in human social relations and practices of all kinds stems ultimately from mental ‘schemas’ concerning assumptions about relations of continuity or discontinuity between beings. He calls this a ‘mode of identification’, or ‘ontology’, and it can be taken in this sense as a kind of root cosmological principle. More will be said about Descola’s ideas elsewhere in this book, but for now, it represents perhaps the most ambitious attempt to present cultural variation as flowing from different fundamental assumptions about the world, according to which all experience is understood and rendered coherent.

But what if this kind of approach puts the cosmological cart before the cognitive horse? Although cosmological beliefs undoubtedly influence human behaviour, often strongly, it does not follow that they have an instrumental role in governing the quality of immediate experience or perception in a way that makes experience and behaviour follow a coherent cosmological logic. What if, rather, cosmology is an explicit, contingent frame of reference by which individuals, and especially cosmological

experts, occasionally reorganise knowledge and experience so that it makes sense in retrospect? If so, cosmology is a phenomenon not of human experience as a whole, but primarily of certain forms of reflective cognition, and one which, while it influences behaviour, generally occurs ‘downstream’ from immediate perception. As will be shown, evidence from the cognitive sciences strongly suggests that this, rather than the more traditional anthropological view of cosmology, is much more likely to be the case.

What This Book Aims to Do

This book is about the relationship between cosmology and cognition, and it explores this in terms of the ideas of cosmological experts – Chinese diviners putting ancient knowledge into practice in a rapidly changing world. Thematically, the book is concerned with what can be said about ontology and epistemology in relation to cosmological coherence: how can cognition help explain the way in which individuals create coherent cosmological theories, and under what circumstances do they do so? Answering this question requires extensive consideration of cognitive science, and doing so in relation to the explicit ontological and epistemological concepts of diviners requires consideration of the wider tradition of cosmological knowledge in which they participate. This means that this is not a conventional ethnographic monograph. Rather, in this book the role of ethnography is to illustrate a theoretical approach, in terms of what ethnographic and historical evidence can and cannot tell us about cosmology and cognition. The focus is on the content of cosmological representations – that is, explicit concepts and the extent to which they produce coherent accounts – rather than on divinatory cosmology as a window onto wider themes in Chinese society, or a comprehensive account of divination as a social practice. This book is therefore empirically concerned with the explicit ideas of individual cosmologists about the nature of the cosmos, the internal dynamics of those ideas and their relationship with cognition. In examining this, the book also approaches the analogous problem of linking comparative anthropological theory to the details and subjectivities of specific ethnographic cases.

The forms of Chinese divination discussed fall broadly under the rubric of 'Eight Trigrams prediction' (bagua yuce), a collection of various predictive methods held together by common assumptions of a cosmos knowable through correlations between phenomena, focusing on the cosmic principles found in the text of the Yijing, a classical work on divination and cosmology based on three-line diagrams called trigrams (gua). My work with two diviners in particular, Master Tao and Ma Jianglong, informs my discussion of Eight Trigrams prediction in practice and in terms of the different approaches of individual diviners. I spent a total of approximately ten months in the east Chinese city of Hangzhou between 2013 and 2015, conducting ethnographic fieldwork with these two diviners and their students and clients, and have continued to return to Hangzhou regularly. Conducting research into these practices necessitates close engagement with classical Chinese sources, not least the Yijing itself, in order to understand the relationship between contemporary practice and the longer history of its development, and to facilitate broader comparison. As such, this book also draws on close readings of relevant cosmological texts, particularly in its discussion of the changing ontological and epistemological assumptions that accompanied the development of the early Chinese empires in the first three centuries BCE, and the long-term effects that this development had on the nature of predictive practice.

The book has two main goals. The first is empirical: I describe the logics of ontology and epistemology as articulated by the diviners I worked with, as examples of individual cosmological exegesis as a reflective process. Similarly, I analyse historical examples of cosmological texts to situate Eight Trigrams cosmology in a wider historical tradition and to develop an epidemiological account of cosmological variation among individuals and change over time. The book's second goal is theoretical: to illustrate how a focus on individual cognition, particularly in terms of dual process theory, can advance the comparative anthropology of cosmology and ontology. My hope is to help this area of anthropology move beyond an apparent opposition between cognitive/evolutionary and culturally focused accounts, and to do so by taking inspiration from the way in which Chinese diviners

themselves think reflectively about similarity and difference. The remainder of this introduction presents a background and overview of Eight Trigrams prediction in China, including the context of my ethnographic work and the historical texts examined, followed by an extended discussion of the book's approach to cognition, ontology and cosmology.

Chinese Divination and the Yijing: Historical Evolution and Contemporary Practice

History

The earliest confirmed written records from China are records of divination: the 'oracle bone script' (jiaguwen) inscribed on turtle plastrons and ox scapulae, recording the exchanges between the Shang dynasty (c.1600–1046 BCE) kings and their ancestors and high god. Even at this early point, time was reckoned by the sexagenary cycle of 'stems and branches' (ganzhi), which would come to form a key part of the correlative system that underpins Eight Trigrams prediction and related practices. Sociopolitical change from the end of the Shang kingdom up to the formation and consolidation of the Qin and Han empires in the third to second centuries BCE precipitated significant changes in cosmological ideas and, by extension, divination methods. By the ninth century BCE, during the Western Zhou (1046–771 BCE), the divination manual on which the Yijing¹ is founded, the Zhouyi (Zhou Changes), existed in its present form (Rutt 2002: 30–33). This book contains the sixty-four hexagrams, originally sets of odd and even numbers but later comprising diagrams of six broken or unbroken lines, themselves constructed by pairing eight trigrams of three lines each: ☰☷☱☲☳☴☵☶☸. Together with the hexagrams, the Zhouyi documents the hexagram names, terse judgements on their meaning and statements concerning their component lines (yao). Divination, then as now, consisted in employing some sort of mechanism to obtain a hexagram. Originally, this involved the manipulation of yarrow stalks, introducing a randomising element. Today, it is more common to use coins, three of which

are thrown together six times to produce each of the six lines. Still other methods rely on using the cosmological correlates of elements of the environment (see below), such as the date, a name, spatial configurations and so on.

Until the third century BCE, when it began to acquire explicitly cosmological significance, the Zhouyi appears to have been used ‘exclusively for divination’ (Smith 2008: 7). References to its use in the Zuo zhuan historical chronicle, covering the later eighth to mid-fifth centuries BCE, suggest that the line statements themselves were used as prognostications, and not yet incorporated into a correlative system of the kind that would become central later (Shaughnessy 1999: 341–42). By the third century BCE, the hexagrams, now consisting of the broken and unbroken lines, were being speculatively linked to yin and yang, negative and positive principles. During the Warring States period (475–221 BCE), the Zhouyi was increasingly understood in relation to developing cosmological theories resting on correlating different groups of phenomena, and to concepts of qi, at this point referring to vapours with various effects on the world and on human behaviour. These theories in turn were developed not only for use in day-to-day mantic practices, but also to provide cosmological justification for political control and military conquest – something of crucial importance to establishing the legitimacy of the Qin dynasty, which unified the Warring States through conquest, and the Han dynasty, which overthrew the Qin and established long-term imperial rule.

The commentaries added to the Zhouyi to create the Yijing – officially canonised as one of the ‘five classics’ (wujing) underpinning imperial ideology in 136 BCE under Han emperor Wu Di – trace their origins to the late Warring States period. They are known as the Ten Wings (Shi Yi), and add an explicitly cosmological dimension to the hexagrams, laying out a conception of a dynamic cosmos based on the dao (‘Way’), according to which the cosmic forces of yielding yin and active yang interact. The dynamics of this cosmos are knowable via the sixty-four hexagrams of the Yijing, which are held to encompass all possible situations. The

commentaries of the Ten Wings, particularly Explaining the Trigrams (Shuo Gua), explicitly correlate the hexagrams and trigrams with all manner of phenomena, which are in turn correlated with one another. Thus, in Explaining the Trigrams, each trigram is correlated with a natural form, an action, a direction, an animal, a body part and so on.

These developments occurred in the context of a wider shift towards correlative cosmology of the kind that still forms the basis of Eight Trigrams prediction, fengshui, Chinese medicine and similar practices. In the early Han period, the cosmology laid out in the Ten Wings was increasingly integrated with an idea of a universal energy substance, qi, transforming through the Five Phases (wuxing). By the Eastern Han (25–220 CE), this constituted a comprehensive cosmology that held that the cosmos in its entirety is composed of qi, which is dynamic and differentiated according to the Phases at different cosmological scales. The Five Phases are Metal (jin), Wood (mu), Water (shui), Fire (huo) and Earth (tu), and operate according to two cycles, one of ‘production’ (sheng) and one of ‘conquest’ (ke), relating to secondary cycles of masking and control (see Feuchtwang 1974: 41–42). Wood produces Fire; Fire produces Earth; Earth produces Metal; Metal produces Water; Water produces Wood. Wood conquers Earth; Earth conquers Water; Water conquers Fire; Fire conquers Metal; Metal conquers Wood. The Phases are best understood as processes – Fire ‘flaming upwards’, and Water ‘soaking downwards’ (Lloyd 2014a: 23) – and can be considered in terms of spatiotemporally variant configurations of qi correlated with phenomena, processes, directions and so on, the salience of which depends on scale in the same manner as the trigrams. That is, while a given object in space-time may be considered, say, Fire at a certain scale, that scale nonetheless manifests an aggregate configuration of qi; the object in question will contain within it, at lower scales, qi in all five Phases. At the same time, qi transforms according to the Phase cycles.

The classical texts examined in this book date from this formative period, from the late Warring States to the early Han – one in which many cosmological ideas competed with one another, and were variously taken up

and combined or rejected by different scholars, and mobilised in relation to the military conquest and political centralisation of the first imperial dynasties. Texts from this period are worth considering in relation to contemporary divination for three reasons. First, some, such as the Yijing itself, are referred to and interpreted by modern Eight Trigrams diviners, and directly inform their ideas and practices. Second, examination of sources from the origin period of correlative cosmology helps guard against the idea of a fully formed, single, coherent notion of cosmology that historically developed without significant variation. Third, as shown in Chapter 4, examining these texts is instructive in illustrating the variation, limits and affordances of evidence for understanding the existence of specific ontological conceptions or their absence.

The methods of Eight Trigrams prediction discussed in this book all rely on shared basic principles of correlative cosmology, integrating it with the Yijing such that each trigram and its constituent lines are also correlated with one of the Five Phases. The ‘six lines’ (liuyao) method used by Master Tao can be traced to the scholar-official Jing Fang, credited with the development of ‘attached stem divination’ (naja shifa), which integrated the Yijing’s trigrams into the qi-based system. The Han dynasty saw a flourishing of cosmological scholarship on the Yijing, which exerted a continuing influence on subsequent dynasties. In particular, during the Song period (960–1279 CE), scholarly culture turned again to the text as a source of political, moral and cosmological guidance (Smith et al. 1990), and divination based upon it continued to play a significant role in Chinese society during the later Qing period (see Smith 1991). The text was widely seized upon as a means of making sense of the profound changes that hit China at the end of the Qing dynasty, and particularly as a means of reconciling newly imported Western ideas with China’s cultural heritage (Smith 2008: 196–201). This trend continued into the Republican era, an intriguing example being the scholar Liu Zihua’s use of the Yijing to predict the existence of a planet (Homola 2014). After the communist revolution of 1949, and especially during the Cultural Revolution (1966–76), the Yijing and divination in general were vigorously suppressed together with other remnants of ‘feudal superstition’ (Smith 2008: 205–7; see Bruun 2003: Chapter 3 on fengshui).

Divination in the Reform Era

In spite of its official condemnation as superstition, divination has experienced a massive resurgence in the four decades since Mao's death and the implementation of Reform and Opening Up (gaige kaifang) under Deng Xiaoping. By the time of my fieldwork from 2013–15, though still officially considered 'superstition' (mixin), practices like Eight Trigrams prediction were continuing to increase in popularity and were freely practised in public. However, local government policies and enforcement vary; when I returned to Hangzhou in 2018, Master Tao was still allowed to practice freely but could not do so visibly at the roadside, being required instead to operate concealed behind a hedge. This coincided with a general assertion of party-state control of religious activity under Xi Jinping, as well as government efforts to 'clean up' cities by removing street vendors.

The post-Reform trend of religious revival ought to be understood in terms of shifting state attitudes to 'religion' (zongjiao) and 'superstition' broadly construed, at times coercive and at times laissez-faire – and often both, depending on the practice in question, the location, the people involved and the attitude of local government. Overall, though, the environment for divination has become much more open since the mid-1980s, when diviners and fengshui masters were targeted for re-education during a crackdown on 'spiritual pollution' (Goossaert and Palmer 2011: 324).² However, the political designation of 'superstition' compels diviners to seek legitimacy, both through asserting the 'scientific' (kexuede) and cultural merits of their practice and through forming formal associations (Li 2015, 2019; Matthews 2017a; see Homola 2013 for a parallel account from Taiwan).

The Yijing itself has seen a resurgence in popularity, typified by the 'Yijing fever' (周易熱 Zhouyi re) of the 1980s and 1990s (Redmond and Hon 2014: 188–90; Smith 2008: 207; again, see Homola 2013: 138 on Taiwan), which

saw a proliferation of books, training courses and societies amid a general fascination for matters cosmological (Goossaert and Palmer 2011: 275–81). This can be seen as part of a broader enthusiastic revival of practices and traditions suppressed during the Mao era, including the rapid development of popular religion, particularly in rural areas (Chau 2006; Goossaert and Palmer 2011: Chapter 10), and the revival of folk traditions, such as paper-cutting, storytelling and spirit cults (Wu 2015), qigong breathing practices (Chen 2003; Palmer 2007), self-cultivation techniques (Farquhar and Zhang 2012) and Confucianism (Bell 2010; Billioud and Thoraval 2015; Hammond and Richey 2015; Sun 2013: Chapters 8 and 9). In many cases, the revival of these practices, including Eight Trigrams prediction, has been accompanied by claims that they are ‘scientific’, which can be seen as part of a longer tradition of attempts to reconcile Chinese cosmology with modernity (see Lackner 2012). This is often motivated not only by concerns for legitimacy but also by intellectual curiosity; both the correlative cosmology of Eight Trigrams prediction and, for example, the cosmology of modern physics are seen as accurate accounts based on human observations of recurrent patterns in nature.

Anthropological and Sinological Approaches to Chinese Divination and Cosmology

The study of Chinese divination in anthropology and sinology is inseparable from the study of correlative cosmology. Even forms of Chinese divination which do not rely on correlative cosmology as an explanation for their efficacy, such as spirit possession or asking questions of gods using tools such as divination blocks, nonetheless operate in a social context in which correlative cosmological ideas and practices are salient (and are often used in conjunction with explicitly correlative methods). This section provides a brief review of studies of Chinese divination and cosmology as relevant to this book’s arguments, in order to contextualise the following sections on ethnographic fieldwork and cognition in the wider comparative anthropology of divination and cosmology.

Anthropological studies of Chinese cosmology and divination have by and large focused on their sociopolitical context, as opposed to cognition and the content of representations. These studies include accounts of the social function of cosmological ideas in Chinese society (Freedman 1979a; Granet 1977; Wolf 1974; Yang 1961), and more specific accounts of the social situation of fengshui (Bruun 2003); the interplay of popular religious cosmology with community formation and politics (Chau 2006; Feuchtwang 2004; Sangren 1987) and the history of spatial organisation (Wang 2009); ritual and ethical aspects of cosmology (Ahern 1981; Steinmüller 2013) and their relation to kinship (Freedman 1979b, 1979c); cosmology as a lens through which to view migration (Chu 2010); and the role of cosmology in shaping medical practice (Farquhar 1996; Hsu 1999; Zhang 2007). While such studies have necessarily dealt with the content of cosmological representations, this has not been their primary focus. Stephan Feuchtwang (2014a), however, provides an overview of core concepts in correlative cosmology broadly considered, focusing on practices of centring. Likewise, Feuchtwang's *An Anthropological Analysis of Chinese Geomancy* (1974), which systematically maps out the central cosmological ideas of fengshui and their practical application, focuses on these principles as understood by practitioners (see also Bruun 2008 for an overlapping account, and Chao 1946 for a comparable overview of bazi horoscopy). Also writing about fengshui, Maurice Freedman (1979d, see also 1979e), like Feuchtwang, touches on certain 'psychological' aspects, including emic perceptions of the relationship between psychology and cosmos and issues of scepticism. Cognition per se, however, has not been a focus of sustained engagements with Chinese cosmology, the exceptions being Charles Stafford's references to divination in his discussions of pattern recognition in thinking about the future (2007) and numerical cognition (2009), and Stéphanie Homola's comments on analogical reasoning in Liu Zihua's linkage of the Yijing and astronomy (2014: 738–41).

Fengshui and the numerological divination systems described by Stafford are cognate fields with Eight Trigrams prediction. Feuchtwang (1974: 195) comments that fengshui practitioners 'consider themselves as natural

scientists and literati and scorn religion and priests'; similar attitudes are held by Eight Trigrams diviners, and I have described them in detail elsewhere (Matthews 2017a). This relates to the question of legitimacy in the context of divination's politicisation by the state as 'superstition', both in the People's Republic and Taiwan, where local authorities attempt to concentrate diviners' businesses into specified streets (Homola 2013). Meanwhile, Li Geng's (2019, see also 2015) study of the methods by which Yijing diviners seek legitimation, including through joining formal associations that can then issue certificates of membership, stands out as one of the few anthropological studies of Eight Trigrams prediction itself.

Discussions of cognition and its relation to the content of cosmological theories continue to constitute an important domain of sinology, particularly in discussions of the intellectual history and philosophy of early China (considered extensively in Chapter 4). Crucial to these discussions is the ongoing debate concerning the character of 'correlative thought', which has primarily been concerned with whether the correlative ordering of phenomena according to concepts such as yin and yang and the Five Phases betrays a way of thinking distinctly different from that historically prevalent in the West (Bodde 1981a; Graham 1986, 1989, especially Part IV; Hall and Ames 1995; Lloyd 1996: Chapter 5; Matthews 2021a; Schwartz 1985, especially Chapter 9), and consideration of the origins of a comprehensive correlative cosmology, often discussed in relation to the formation of the unified Qin and Han empires (Henderson 1984; Lloyd and Sivin 2002: 253–72; Needham 1956; Nylan 2010; Puett 2004; Wang 2008). Related concerns regarding mind–body dualism considered in light of cognitive science are pursued by Edward Slingerland (2013, 2018; Slingerland and Chudek 2011), and Steve Farmer et al. (2000) have proposed a research framework for the comparative study of correlative cosmologies that attempts to ground the cross-cultural recurrence of this way of thinking in neurobiology. In summary, these debates have focused on whether or not a meaningful distinction exists between a 'Chinese' way of thinking that is relational and holistic, and a 'Western' way of thinking that emphasises essences and linear causation. These questions are dealt with throughout this book when they arise (notably in Chapters 4 and 5), including in the following section on dual process theory, and directly parallel questions of cosmology and

cultural difference in anthropology as discussed below. Slingerland (2018), whose approach shares considerable common ground with that of this book, has provided a thorough, critical review of these debates from the perspective of cognitive science and linguistics.

Ethnography: Two Contemporary Diviners in Hangzhou

The Role of Ethnography in This Book

Most of the above-mentioned anthropological studies of Chinese divination are primarily concerned with how it fits into a wider social context, as revealed via long-term ethnographic fieldwork. The study of subjects such as how legitimacy is established, or the role of fengshui in local politics, is necessarily driven by extensive ethnographic description as a key means of empirical documentation. This is particularly so given that such subjects are inherently broad in scope; ‘local politics’ or ‘legitimacy’ are not readily identifiable as objectively defined scientific objects, but are shorthands for a whole range of phenomena that allow an ethnographer to build up a ‘thick description’ (Geertz 1973) of a particular time and place. When such accounts engage with theory, it is often by using theoretical concepts as heuristics or exploring the interpretive potential of salient local concepts. This book takes a somewhat different approach, using ethnographic insights in two specific ways – as an illustration of broader theoretical principles, and as a source of theoretical concepts.

A traditional ethnographically driven interpretive approach is not sufficient for an explanatory account specifically focused on the relationship between cosmology and cognition. This is not because ethnography is not valuable (indeed, it is part of the inspiration for the argument), but because, like any research method or form of data, it is limited. Explaining the role and effects of individuals’ cosmological concepts in relation to cognition requires

evidence that ethnography alone is simply unable to provide. I expand on this later in this Introduction and throughout the book; here, though, I want to note that it has implications for the role of ethnography in the argument. The role of ethnography here is primarily illustrative. The complexities of human cognition mean that it is not enough to derive insights solely from observed behaviour or interviews; instead, these must be analysed in light of an informed understanding of how the relevant aspects of cognition operate, including as revealed through psychological experiments.³ In this sense, this book analyses ethnographic examples in light of such understandings, and does not pretend to offer a comprehensive ethnographic account of Eight Trigrams prediction and its wider social context. This is considered where necessary, but the primary focus is on what can be learned from individuals' explicit cosmological ideas, and their relationship with a wider cosmological tradition of transmitted knowledge. I believe that some of these ideas, particularly concerning scale, are also extremely valuable for anthropological comparison (the focus of Chapter 5); for this purpose in particular, they are best considered as specific concepts which form parts of explicit cosmological theories, rather than as lived practices, and in considering their potential as theoretical concepts in anthropology (as in Chapter 5), I thus treat them as I would the concepts of other scholars.⁴

The Ethnographic Context of This Study

Most of the ethnographic data presented in this book derives from a total of around ten months' fieldwork conducted for my PhD, from September to December 2013, January to March 2014, and August to September 2015.⁵ This concentrated on understanding explicit cosmological beliefs and the process of interpretation used in divination, primarily through working with Master Tao, and later Ma Jianglong. All fieldwork was conducted independently in Mandarin. Over the course of fieldwork, I generally visited Master Tao at his roadside spot three to four times per week, typically for several hours at a time, if not the whole day (specific times and days varied from week to week). Fieldwork thus primarily took the form of participant observation. Master Tao taught me foundational concepts of the six lines

prediction method he used, and I would ask him questions emerging from specific consultations. Fieldwork thus proceeded organically, and through Master Tao I got to know various of his students, most of whom study six lines prediction as a hobby, and regular clients, who were happy to answer questions and for me to take notes during the course of participant observation; this was my preferred method, though I arranged a small number of semi-structured interviews with students and other individuals who were not regularly present in the neighbourhood, including on Master Tao's recommendation.

Master Tao's consultations took place by the side of a pedestrian street a few kilometres north of Hangzhou's West Lake, part of a network of such streets along a stretch of the Grand Canal (connecting Hangzhou and Beijing) around twenty minutes' cycle ride from the shared flat I was staying in to the west (unfortunately, it was not possible, certainly in the city, to arrange accommodation with diviners). Master Tao lived close to the street where he worked, having moved to Hangzhou some years prior to my fieldwork. He took up six lines prediction full-time after he retired, having originally been taught the method by a Buddhist master on the eve of the Cultural Revolution. Master Tao was well liked and respected both by his students and clients and by the local community ('master', *shifu*, being a respectful form of address rather than a formal rank). He would offer roadside predictions for 50 RMB (around £5 at the exchange rate of that time), rather more than the 25–30 RMB charged by other roadside diviners at the time, but people were willing to pay, and this pricing was low enough to reach a broad client base. He also offered private consultations and other services, including *bazi* fate calculation, name-giving (*qiming*) and changing (*gaiming*), stick divination (*chouqian*) and *fengshui* consultation.

The immediate surroundings of his workplace were occupied by new buildings in traditional style, serving as restaurants, teahouses, cafes and small shops (overall, a mixture of high-end independent shops, stalls selling religious goods such as incense sticks, a highly regarded ceramic shop that hosted various artistic events, a rice wine shop and so on). These businesses

neighbourhood low apartment blocks and a large Buddhist temple. This combination meant that the street was frequent by a wide range of people, including local residents, patrons of these various businesses, local workers (including employees, street cleaners and security guards), monks and temple-goers. Several diviners worked on this street, though none of them did so for the full duration of my fieldwork, and they did not enjoy the same level of business as Master Tao.

Indeed, Master Tao was a popular diviner with many regular clients, some of whom lived locally and others of whom came from elsewhere or beyond Hangzhou. Alongside this, he was regularly consulted by passers-by, the busiest times being days on which large numbers of people visited the temple – especially around lunar new year, significant dates in the Buddhist calendar (such as birthdays of the Bodhisattva Guanyin), other important dates in the lunar calendar and to a lesser extent the first and fifteenth day of each lunar month. As elsewhere in China, in this part of Hangzhou diviners therefore played an important role in the ritual economy of the temple's local area; on significant days such as those mentioned, many people would visit the temple to offer incense for good fortune, and combined this with divinatory consultations (to gauge, for example, their fortune for the rest of the year).

This context meant that Master Tao's work was a highly visible part of the local neighbourhood. He had commandeered a number of used beer kegs and abandoned chairs from the local businesses to serve as makeshift seats for clients, and one of the local cafes would allow him to conduct consultations under their awnings on particularly hot days. He was well known in the community, and many local workers and regular passers-by would stop to chat during the course of the day, or to observe consultations. A typical day of fieldwork with Master Tao would thus involve sitting with him and his various interlocutors at the roadside. Occasionally he would have considered in advance some key principles he thought I should know about, and would explain these to me between consultations; at other times, points he deemed important would arise from the nature of a specific consultation, or he would

give me his take on various aspects of ‘traditional culture’ (chuantong wenhua). As consultations were conducted in public, typically clients were happy for me to remain present and observe and take notes on the nature of the enquiry and its interpretation and resolution; when they were not, I would absent myself. In fact, in good weather Master Tao’s consultations would frequently attract onlookers, including his own acquaintances and regular clients, as well as interested passers-by. Given the informal and visible nature of Master Tao’s practice, combined with the wider political context of divination,⁶ I limited data collection with him to fieldnotes and occasional photographs.

My fieldwork with diviner and fengshui consultant Ma Jianglong proceeded quite differently. I met Ma Jianglong when a friend (whom I knew via Master Tao) took me to see a lecture on ‘national studies’ (guoxue) early in 2014. Master Tao had been taught six lines prediction by a master as part of a longer chain of oral teaching, and identified this with a tradition of divination traceable via Qing-era texts, such as Wang Weide’s *Orthodox Divination* (Bushì Zhengzong; Wang Hongxu [Wang Weide] and Sun Zhengzhi 2012) and Li Wenhui’s *Divining the Changes through Adding and Subtracting* (Zengshan Buyi; Li Wenhui 2012), ultimately to the work of Jing Fang the Younger in the Han dynasty (see Chapter 4). Ma Jianglong, in contrast, has developed his own approach to Eight Trigrams prediction through a reading of the *Yijing* focusing on the imagery of whole hexagrams rather than properties of specific lines, which are the focus of six lines prediction. He combines this with fengshui consultancy and teaching, offering courses in person and online, has plans to establish a research institute, and has published a commentary on the *Yijing* with his wife Chang Weihong, *My Reading of the Zhouyi* (Zhouyi wo du; 2013).

Ma Jianglong caters to a very different clientele, primarily businesspeople, charging rates in the thousands of RMB for private consultations. Unfortunately, despite his willingness for me to attend a consultation if a client was happy for me to, no such opportunities arose during fieldwork. As such, my work with him consisted of long discussions, sometimes starting as

semi-structured interviews, beginning at his office in the early afternoon and continuing into his home and late into the evening. These, and continued subsequent communication via WeChat and on return visits, provided an opportunity to understand his cosmological approach in detail. While Master Tao emphasised the ‘scientific’ nature of Eight Trigrams prediction, Ma Jianglong argues that it should be considered ‘dark studies’ (xuanxue), a combination of Confucian and Daoist approaches which emphasises intuition and practice rather than formalised theory, and in his view transcends the limits of science as a source of knowledge. Despite their differences, both men operated according to similar assumptions about the trigrams and hexagrams, and qi-based cosmos, as described later.

Divinatory Procedure

Yijing-based divination or Eight Trigrams prediction can be conducted via various procedures, but all of them involve deriving a hexagram. The method described in the text itself involves the manipulation of yarrow stalks, separated into two bunches by hand to introduce some degree of randomisation. The Appended Phrases (Xici) commentary states that the legendary sage ruler Fu Xi (named Bao Xi in the text) derived the trigrams from his observation of natural patterns, providing the means for later non-sages to access cosmological knowledge. This idea is accepted by contemporary practitioners such as Master Tao and Ma Jianglong, but the yarrow stalk method is not often seen today – diviners like Master Tao who employ the six lines method will tend to use coins. Three coins are thrown together for each line, their outcome indicating yin (broken line), yang (solid), yin changing to yang, or yang changing to yin. Master Tao’s own description of the procedure was as follows:

用中国清朝乾隆钱三只，用双手握住摇动丢下，有满文的为准，一个满文为一点，二个为两点，三个为一圈，三个都是“乾隆通宝”者为一X，一点为阳，二点为阴。一圈为阳，一X为阴，一圈为阳动，主过去

之事，一X为阴，主未来之事，每一卦为六次称为六爻。前三次为下卦，后三次为上卦，然后上、下两卦点出卦名。⁷

Use three Chinese Qianlong coins [round coins with a square central hole from the Qianlong reign, 1711–99, in the Qing dynasty; the qian character in the reign name is the same as the first trigram and hexagram]. Using both hands, shake the coins and drop them. Take the Manchu script as standard. One Manchu [side] gives one dot ['], two give two dots [''], three give a circle [o], three all reading 'Qianlong tongbao 乾隆通宝' [in Chinese characters] give an X. One dot is yang, two dots are yin, a circle is yang, an X is yin. A circle is yang moving [i.e. old yang changing to young yin], and governs past events. An X is yin [old yin changing to young yang], governing future events. Each hexagram [gua] constitutes [this being done] six times, and this is called the six lines [yao]. The first three times are the lower trigram [gua], the second three times are the upper trigram. Then the upper and lower trigram marks yield the hexagram name. (Adapted from Matthews 2022)

Other methods are also used; given that the hexagrams are considered to be derived from observation, it is in theory possible to derive one for consultation from observing the environment. For example, the Plum Blossom method (meihua yishu) relies on numerical manipulation of features of the time or environment, such as the date and time, to derive a hexagram. Ma Jianglong's method, based on the correlates of each hexagram as a whole, resembles the Plum Blossom method insofar as it does not rely on randomisation, but on deliberate identification of the correlates of particular features of the context in question – such as a person's name, birth, family circumstances or appearance.

As will be seen, this results in quite different interpretive processes. For both Master Tao and Ma Jianglong, the cosmological correlates of specific phenomena are fixed and constant, and interpretation is constrained accordingly. However, Master Tao's six lines method imposes further constraints, because the hexagram is determined entirely by the fall of the

coins. In contrast, Ma Jianglong is able to select what he considers the salient features of the context in question as the basis for deriving a hexagram, leaving greater room for intuitive identification of more complex situations with a particular hexagram. In all cases, however, the correlative system means that regardless of interpretation, there is a ‘correct’ answer to any given query.

It should be noted that these methods differ fundamentally from the conception of the Yijing’s use famously put forward in the West by Carl Jung (1989). That approach relies on direct consultation of the text, something not considered effective for specific diagnosis by the diviners with whom I worked, owing to its terseness and ambiguity. Jung’s method hinges on an entirely different form of interpretation, in which the ambiguity of the line statements provides opportunity for free association and subsequent derivation of subjective meaning, unlike the fixed meanings of the correlates understood by Master Tao and Ma Jianglong.⁸

This overview already illustrates a basic problem that this book attempts to address: how to consider individual variation within a tradition of cultural transmission of shared concepts. In spite of their many points of agreement on basic cosmological principles, Master Tao and Ma Jianglong employed distinct methods and held divergent epistemological ideas, particularly when comparing Eight Trigrams prediction to other forms of knowledge, such as science and religion. As will be shown, accounting for the reality of cosmological diversity means abandoning the idea that cosmologies or ontologies, as accounts of what exists, can be accurately considered on anything other than an individual level – and even then, they are contingent reflections limited to specific circumstances. Indeed, as one of this manuscript’s reviewers observed, had I met different diviners during my fieldwork, the particulars of their ontological and epistemological accounts, while drawing on the common foundations provided by the long-term history of correlative cosmology, would undoubtedly have been quite different in their specifics.

Divination, Cosmology and Cognition

Eight Trigrams prediction is a practice based on the understanding of human situations in terms of cosmic principles as indexed by the hexagrams. Divination here consists in making diagnoses and predictions (Zeitlyn 2012) by understanding specific client circumstances as instances of these constant principles. It can thus be understood as a practice that follows from, and enacts, a culturally particular cosmology – and one which only makes sense in these terms. But is this the whole story? Much anthropological ink has been spilled over the possible ways in which cosmological beliefs can account for what is, from a typical modern anthropological perspective, the apparently bizarre or ‘irrational’ practice of employing randomised methods for gaining knowledge about the world, and what it means about the worlds imagined by cultural others.⁹ A running theme of this book’s arguments is that the explanatory power of cosmology with respect to behaviour should not be overstated. Cosmological concerns clearly motivate diviners, and many clients, but this does not mean that all aspects of divinatory reasoning or associated behaviour are ultimately traceable to the effects of adopting a particular cosmological view – a point discussed in Chapter 1 in relation to the concept of ‘deep ontology’. As Pascal Boyer (2020) points out, a key shortcoming of the cosmological explanation for divination as a practice is that in comparative perspective, many divination systems exist which involve no cosmological elaboration at all. This is true, for example, in the classic ethnographic case of the Nuer poison oracle, where the idea is simply that divination works, even if it may provoke questions as to the efficacy or potency of the methods and tools involved (Evans-Pritchard 1976).

Scholars of divination have long remarked on the interplay of intuition and reflection in the interpretive process, though not necessarily using these terms – I use them here following Dan Sperber (1997) and more generally the literature on dual process theory, discussed in the next section. David Parkin (1991), for example, presents a detailed account of the interplay of

‘simultaneity’ and ‘sequencing’ in three divination techniques, indicating the different ways in which the two cognitive styles are employed in different techniques and different associated belief systems. Similarly, Barbara Tedlock (2010) differentiates between ‘presentational’ and ‘representational’ symbolism, and Katherine Swancutt (2006) between ‘representation’ and ‘conjecture’. The key difference between the two modes of thought is that the former, corresponding to intuition, relies on rapid judgements, the process of arrival at which is not accessible to conscious examination, whereas the latter, corresponding to reflection, involves conscious ratiocination and is slower. For now, it is worth making some orienting observations. First, both processes are involved in all manner of practices, though divination emphasises consideration of both, even if different forms grant more or less weight to one or the other in interpreting their results (Matthews forthcoming a). It is thus not helpful to describe divination as reliant on ‘non-normal modes of cognition’ (Peek 1991). Second, extended reflection need not amount to developing a systematic account of divinatory causation (hence Boyer’s point), which has important implications for anthropological considerations of ontology. Third, as I argue below in relation to the anthropology of cosmology and ontology more generally, much confusion arises when anthropologists overemphasise one or the other kind of cognition, or mistake differences between intuitive and reflective judgements for evidence of a bafflingly ‘other’ mode of thought that they implicitly assume must be coherent.

Regarding the role of intuition, Boyer (2020) presents a convincing argument that what makes divination intuitively convincing, and thus accounts for its cultural recurrence regardless of its degree of cosmological elaboration, is that it creates what he calls ‘ostensive detachment’. What marks divination out as a practice is that it generates statements about the world that do not appear to come from a speaker – that is, they are not perceived as originating with the diviner but from the process itself. The centrality of communication to human survival likely placed an evolutionary premium on ‘epistemic vigilance’ (Sperber et al. 2010), an intuitive sensitivity to the possibility of deception by other agents. As Boyer’s argument goes, divination’s intuitive credibility rests simply on removing an obstacle to doubt, as the statements it generates appear detached from a

human source. This, Boyer points out, does not mean that divination will necessarily be considered persuasive in practice, only that in the absence of alternative, more convincing sources of information, it will intuitively appear authoritative.

Elsewhere, Boyer (1994a: 246) likewise identifies divinatory utterances as instances of ‘nonintentional production’, the content of which is determined by techniques – such as the derivation of a hexagram by the throwing of coins – rather than by the intention of the diviner; in most non-divinatory contexts, the veracity of an utterance would be judged based on the assumption that it conveys a mental representation on the part of the speaker which corresponds to (and is thus the effect of) a real occurrence (ibid.: 243–44). This forms part of a broader case he makes for the salience of abductive reasoning, or ‘induction in the service of explanation’ (Holland et al., cited in Boyer 1992: 208), which constrains ‘the indefinitely large number of explanations compatible with any event’ (Boyer 1992: 208). On this account, the experience of divinatory truth derives from ‘direct causal interpretation’ (1994a: 250–51), in which the mental representation of the diviner is irrelevant to the judgement of a divination’s veracity, which is accepted owing to intuitive assumptions concerning mental processes and causality.

This accounts convincingly for the cross-cultural recurrence of divination and its intuitive credibility. What it does not account for is how persuasive divination might be when subject to careful reflection, though it does suggest the value of investigating whether cosmological elaboration becomes more likely in the presence of credible alternative sources of knowledge. Similarly, it does not address the role of explicit cosmological explanation from the perspective of the diviner (or, by extension, a client or observer with cosmological expertise). For the Eight Trigrams diviner, the causal account of a hexagram’s derivation is explicit and specified in terms of cosmic qi, which is described as both energy and a constituent of phenomena. Moreover, the diviner is reflexively aware of their own mental representation of the hexagram during interpretation; from the perspective of the diviner, the efficacy of divination is not simply a matter of intuition, but

also of systematic cosmological beliefs and the mental manipulation of explicit theoretical concepts. That, though, is absolutely not to say that every mental operation in which the diviner engages during prediction, whether intuitive judgement or protracted ratiocination, is determined by their cosmological knowledge – a contention that could hardly follow from the evidence afforded by ethnographic observation.

Likewise, it should be emphasised that texts involved in divination, including comprehensive manuals such as can be found for Eight Trigrams prediction, do not provide adequate evidence for developing comprehensive accounts of divinatory reasoning, even if they can provide evidence of particular reflective interpretations. However, texts do affect divinatory interpretation in other ways. David Zeitlyn (2001: 227) argues that in divination systems that rely on texts, ‘diviners must satisfy themselves and their peers . . . that most diviners would agree with the interpretation given’. While the Yijing is not quoted directly in Eight Trigrams prediction, the correlates of hexagrams are fixed and elaborated on in an extensive literature, constraining interpretation. Zeitlyn notes the similarity between text-based divination and literary criticism, given a fixed textual source necessarily subject to interpretation; this aspect is less the case for six lines prediction, given that no room for interpretation exists for the fixed line correlates – interpretation is possible only insofar as certain correlates are deemed relevant in a given instance. Discussing the Yijing, John Henderson (1999) argues that divination can be considered a form of exegesis, and this more precise description better fits the character of six lines prediction, in which every divination effectively amounts to the cataloguing of a new instance of phenomena described by one of the Yijing’s hexagrams.

Dual Process Theory and Cultural Epidemiology: Making Sense of Cosmology, Cognition and the Individual

Definitions

At this point it becomes necessary to define some key analytic concepts more clearly, and in particular the relationships between them. Following Sperber's (1996) usage, throughout the book I do not make any significant distinction between the 'social' and the 'cultural', which are used more or less interchangeably to describe behaviour that occurs in relation to and under the mutual influence of other individuals, and the associated transmission of ideas, practices and so forth. Throughout the book I refer to 'mental representations' or 'representations' to describe the conceptual content of cognition, following standard usage in the cognitive-scientific literature I engage with. These are to be understood ultimately in terms of functional descriptions of neurological processes.

'Cosmological' in this book is understood as referring to explicit conceptions of the various entities thought to exist in the cosmos and the relationships that exist between them, which may or may not be systematically integrated into a coherent, unified 'cosmology'.

'Ontological', meanwhile, refers to the most basic kinds of thing that are considered to exist and associated questions of fundamental similarity and difference, which may be explicitly discussed as such or may be implied, a point considered further in Chapters 2 and 3 and elaborated on below.

Epistemology refers to explicit theories about whether, how and to what degree knowledge about the world can be obtained. In this view, cosmology (such as the correlative cosmology of Eight Trigrams prediction, which concerns the relationship between the differentiated forms of qi as manifest in the interactions between Heaven (tian), Humanity (ren) and Earth (di)) implies an epistemological stance regarding how humans are able to obtain knowledge about the world. With respect to the correlative cosmology employed in Eight Trigrams prediction, this would concern, for example, the account of the trigrams being derived from natural patterns and the consequent reliability of resemblances between phenomena as a guide to their nature and behaviour. Meanwhile, both cosmology and epistemology thus defined presume certain ontological conditions. In Eight Trigrams cosmology, these are explicit in terms of the claim that all phenomena in the cosmos are a single type of thing, qi, which is dynamic. In the epistemology

of the Yijing, implicit ontological assumptions include, for example, the existence of an observable world and of an observer as part of that world.

This conception of the ‘ontological’ differs from that associated with the ‘ontological turn’ in anthropology, as represented by the work of Eduardo Viveiros de Castro (1998, 2004), Martin Holbraad (2012) and others (Henare et al. 2006; Holbraad and Pedersen 2017), in which anthropology is recast as an exercise in asking ‘ontological questions’ about our own analytical categories and continually reformulating them as ontological expressions in light of local understandings. Instead, ontology in this book is understood in terms more similar to what Holbraad and Pedersen call ‘deep ontology’ (2017: 55–65). That is, it refers to the most basic categories of being, which might be explicitly identified or presumed by certain sets of ideas or perhaps practices. In examining the ontology of correlative cosmology I broadly follow the comparative, explanatory aims of many of the scholars that Holbraad and Pedersen associate with this idea (even if they do not frame it in terms of ‘ontology’), notably Philippe Descola (2013) but also, for example, Michael Puett (2004, 2010, 2014, 2015) and Michael Scott (2007). However, I depart sharply from Descola and Scott in rejecting the idea of ‘deep ontology’ itself. While cosmology, as well as epistemological and ethical theories, inevitably involve ontological assumptions that may be more or less explicit, it is much less clear that practices necessarily do, particularly when not carried out by cosmological experts (such as diviners). Above all, I reject the idea, most explicit in Descola’s work, that apparent coherence between ideas, practices and social organisation in a given cultural context stems from an underlying unifying ontological orientation somehow enculturated in the mind of the individual. This is considered in detail in Chapter 1, drawing heavily on studies of human cognition in terms of dual process theory.

Dual Process Theory

The above account of divinatory cognition introduced the distinction between intuition and reflection. This distinction, also labelled in the cognitive-scientific literature as one between type one/system one and type two/system two processing, is the central idea of dual process theory, which comprises a large body of work in the cognitive sciences that strongly supports the existence of two distinct modes of human thought. Throughout the book, I use the terms intuition and reflection (or intuitive and reflective)¹⁰ to describe these two modes, as this terminology has been adopted by cognitive anthropologists who have engaged with this work (e.g. Boyer 1998; Sperber 1997). This terminology has the additional benefit that it simply describes two modes of cognition, which can be demonstrated empirically through experiment and are subjectively apparent (as, for instance, any Buddhist will tell you), without implying that all intuitive processing, say, shares a common origin or mechanism.

Put briefly, intuition or type one processing is characterised as fast, automatic, low effort and having a high processing capacity, whereas reflective or type two processing is slow, controlled, high effort and has a limited capacity (Evans 2009: 33; for a review of evidence and theory see Evans 2003, 2011; for a popular overview, see Kahneman 2012).¹¹ Intuition can further be described as ‘associative’ in that it relies on completing patterns based on perception using learned associations (such as stereotypes), retrieving information from memory based on immediate contextual cues, preconsciously insofar as the process of arrival at a judgement is not consciously accessible even though the judgement itself may be (Smith and Collins 2009: 201). Reflection, in contrast, is ‘rules-based’, ‘consciously controlled and effortful . . . involv[ing] search, retrieval, and use of task-relevant information’ to produce typically longer-lasting conclusions that are subjectively perceived as more valid (ibid.). Where associations based on ingrained stereotypes might characterise intuition in a social context, reflection might involve careful consideration of actual examples of a person’s behaviour, something that involves ‘maintain[ing] and us[ing] explicit representations of rules to derive . . . conclusions’ (ibid.: 202).

While a strong ‘dual systems theory’ does exist in parts of the dual process theory literature, arguing that intuition and reflection describe two distinct, parallel systems, a more persuasive and widespread account is that intuition or type one processing encompasses a range of distinct processes that nonetheless share the features described above (Boyer 2015; Evans 2009; Stanovich 2009). However, reflective processing is a better candidate for a distinct cognitive system because unlike intuitive processing, it is based on a ‘singular working memory system’ (though not one simply equatable with working memory), accounting for its much more limited capacity and necessarily sequential nature, in contrast to the potential for parallel intuitive processing (Evans 2009: 37, but see Evans 2011 for a discussion of why it likely also comprises various different processes). Intuition and reflection, while distinct, should not be viewed as decoupled. As Evans points out, reflection (system two) ‘must also include many other resources [apart from controlled attention and working memory], such as explicit knowledge and belief systems together with powerful type 1 processes, for identifying and retrieving data that is relevant in the current context, not to speak of the role of attention, language, and perception in supplying content for type 2 processing’ (2009: 42).¹²

An important consideration in discussing intuitive processing is that it appears to be highly modular, involving specific processes tailored to specific domains of perception and the environment (Atran and Medin 2009; Boyer 2015; Mercier and Sperber 2009), alongside the presence of ‘domain general processes of unconscious implicit learning and conditioning’, ‘rules, stimulus discriminations, and decision-making principles that have been practiced to automaticity’ and ‘behavioral regulation by the emotions’ (Stanovich 2009: 56–57, emphasis original). While there has been a perceived tension between dual process accounts positing a domain-general reflective system on the one hand, and approaches from evolutionary psychology emphasising ‘massive modularity’, which downplay the role of reflection, on the other (Evans 2003: 457–58), more recent approaches concerned with matters relevant to anthropology indicate that functional modularity need not conflict with a recognition of the dual process nature of cognition. For example, Boyer emphasises that intuitions are domain-specific, comprising specific systems operating on specific principles related

to areas such as mating, foraging, hunting and tool-making, in line with the evolutionary pressures exerted on a social species (2015: 191); meanwhile, his approach to religion in terms of minimally counter-intuitive beliefs (1994a) implies the reflective representation of intuitions from a variety of domains, including agency, naive physics and so on (see also Baumard and Boyer 2013). Hugo Mercier and Dan Sperber share a similar view of ‘the human mind as made up of many specialized modules, each autonomous, each with a distinct phylogenetic and/or ontogenetic history, and each with its own input conditions, specific procedures, and characteristic outputs’ (2009: 150; see also Cosmides and Tooby 2013), evidence for which can be found in humans and other animals for (for example) learned association of nausea with food, fear of snakes and incest avoidance (Al-Shawaf et al. 2019; see also Boyer and Barrett 2015). Mercier and Sperber (2009: 153–56) extend the modular view to reflection, arguing that the latter should be seen as a set of separate modules dealing with meta-representations (mental representations of mental representations), as might be expected evolutionarily from a species so reliant on producing and evaluating social communication; that is, reflective inferences rely on the representation of reasons that are themselves the outputs of intuitive inferences.

Whether or not reflection as a whole constitutes such a module is not in and of itself significant for this book’s arguments; what is significant, though, is the fact that reflection relies on the capacity for meta-representation – for thinking about one’s own thought processes – and that the thought processes it represents are themselves grounded in specific, evolved modular capacities.¹³ In particular, this relates to Mercier and Sperber’s (2009: 150–51) argument that attention should be seen in terms of favouring one or more modules dependent on context; we should expect intuitions to vary depending on the relevant cognitive domains activated by perceptual cues, and that reflective judgements will in turn be influenced accordingly. In particular, as discussed at length in the next chapter, we should not expect coherence between the categories of phenomena implied by intuitive behaviour and those elaborated reflectively. We should also not expect consistence in reflective judgements across contexts that prioritise attention to different domains and corresponding intuitions (which is not to say that

such consistence will never be found, but rather that it will be less common, given the demands it imposes on reflective capacity).

It should be noted that the fact that cognitive modules or domain-specific intuitions constitute evolved predispositions – that is, adaptive mechanisms which respond to environmental (including social) pressures – does not necessarily mean that their specific content, or the way in which they develop in individuals, is innate, unchanging or universal – or, by virtue of being ‘upstream’ of explicit reflection, more ‘real’. This point is essential to the book’s arguments, and its implications for anthropology in general are extremely significant, particularly in terms of how cultural variation should be understood. Chapter 5 therefore brings this together with understandings of scale found in Eight Trigrams cosmology to present an analytical framework that can equally account for evolved cognition and cultural diversity.

Modules and intuitions as evolved predispositions are learning mechanisms whose exact nature depends on developmental context and environmental cues (incest avoidance, for example, relies on childhood co-residence with siblings and association of them with their mother; Al-Shawaf et al. 2019). As such, the content of intuition can be highly culturally variable, and at the same time, many reflective beliefs, such as some moral explanations, appear to share constant features across history and culture (Boyer 2010: 379–80). Moreover, human learning is characterised by a good deal of plasticity, and prolonged exposure to certain circumstances or active practice of certain skills can often allow initially reflective knowledge and processes to become intuitive (Kahneman 2012; Smith and Collins 2009). It is also worth noting that while the capacity for reflection is clearly the product of evolution (and possibly uniquely human; Evans 2003: 454), its content is obviously extremely variable dependent on learning. Indeed, whereas most intuitive propensities are in general likely to be evolutionarily adaptive, this is not necessarily the case for reflective responses, which are rational at the level of the individual with respect to explicit goals (Stanovich 2009: 56).

This of course means that situations arise in which intuition and reflection are in conflict, and this is a crucial take-home point for anthropologists. Dual process theory is perhaps best known for exploring these conflicts, in terms of the appropriateness of intuitive and reflective responses and cognitive biases (made famous particularly by Kahneman 2012). A classic example is the bat and ball problem (Frederick cited in Evans 2011: 94); a bat and ball together cost \$1.10, the bat costing \$1 more than the ball. How much does the ball cost? The intuitive response here is \$0.10, but reflection will yield the correct answer of \$0.05.¹⁴ While individuals vary in their cognitive styles in terms of preference for intuition or reflection (Evans 2011: 90), this should not be confused with cultural variability in what Evans calls ‘modes of thinking’ (ibid.: 89), such as the well-documented tendency under specific experimental conditions of respondents from East Asian countries to focus on contextual features and of Euro-Americans to focus on discrete elements, for example of landscapes (Buchel and Norenzayan 2009). As these involve explicit, deliberative reasoning, they constitute differences in reflective style rather than preferences for intuition or reflection (Evans 2011: 89); accounts, including those in anthropology and sinology, that characterise such differences in terms of a distinction between thinking intuitively or analytically risk presenting an unrealistic and unsupported level of cultural difference, as discussed in Chapter 5.¹⁵

This body of evidence has provoked significant interest in economics, giving rise to the discipline of behavioural economics, which emphasises the influence of psychological and social factors on decision-making, undermining the idea of straightforward rational self-interest as the driver of economic behaviour (see Kahneman 2012 and Thaler and Sunstein 2009 for popular introductions). Anthropology as a discipline would do well to take note of this, as dual process theory has a similar potential to transform anthropological theory, though in different ways. While anthropologists have rightfully long doubted the notion of *Homo economicus* as a rational self-interest maximiser, the discipline makes its own analogous assumptions about human behaviour. That is, there is also a *Homo anthropologicus*, characterised fundamentally by a total coherence of thought, elaborated on

in Chapter 5. Of course, anthropologists routinely acknowledge (and it is hard to miss) the typical disjuncture that exists between what people say and what they actually do – but they nonetheless tend to take what people say (when being sincere) as a reliable indicator of what, and crucially how, they think. This raises issues for various domains of anthropological enquiry,¹⁶ notably ontology and particularly the idea of ‘deep ontology’ as an instrumental factor in determining behaviour, as discussed in Chapter 1. Cosmology as a whole is an area of anthropology for which this is especially relevant, and is discussed in the next section.

Cosmology as Individual Cognition

In the opening chapter of his classic analysis of cosmological innovation in highland Papua New Guinea, *Cosmologies in the Making*, Fredrik Barth admonishes that anthropological analysis requires that we ‘always struggle to get our ontological assumptions right’ (1995: 8, emphasis removed; see also the Introduction to Scott 2007, who takes a very different approach). Barth’s focus is on the role of individuals as cosmological innovators, instantiating their ideas through practice and in a dynamic interplay between wider aggregate conceptions and individual reflection. With respect to the study of cosmology, getting our ontology right involves recognising the nature of cosmological theories as collections of mental representations on the part of individuals, which are nonetheless modified and generated via participation in a wider sociocultural environment. As Barth (1995: 80) argues, the making of cosmologies involves ‘an interplay of (largely divergent) processes of individual creativity and modification and (largely convergent) cross-influence and borrowing arising from compelling ideas and charismatic initiators’. The relevant scale of analysis is thus the individual cosmologist, the dynamics of their representations, and the factors which contribute to the generation and modification of those representations. As Barth puts it, the cosmologist is ‘an individual embedded in social relations engaged in producing his particular expression or representation’ (ibid.: 87).

In a comprehensive review of recent anthropological engagements with cosmology, Abramson and Holbraad (2014, see also 2012) make the essential point that the study of cosmology in comparative perspective is itself necessarily a cosmological exercise (2014: 4). A central theoretical question concerning the study of cosmologies, then, is that of the cosmology (and of necessity, the ontology) which anthropology itself should adopt, as Barth (1995) argued. Abramson and Holbraad (2014: 10) opt ultimately for an approach in which the philosophical basis (rather than simply the content) of the anthropological position is continually up for grabs, facilitating experimental, non-explanatory engagement with ethnographic material that can reframe the terms of anthropological analysis. The extent to which such an approach is possible is open to question; it may be said, though, that its value is contingent on the assumed purpose of investigating cosmology. As a theoretical stance it is inadequate for the comparative analysis and explanation of cosmological production and variation as an aspect of human behaviour; nonetheless, it is worth considering here, as it represents an influential paradigm in anthropological engagements with ontology, and because it is set up in explicit opposition to cognitive approaches.

Abramson and Holbraad make three criticisms of other anthropological approaches to cosmology. Their first objection is to the tendency of such accounts to take cosmologies as ‘wholes unto themselves’, as indigenous accounts of ‘their culture taken as a totality’ (Abramson and Holbraad 2014: 5, emphasis original). The degree to which such totalising enterprises pertain to the purpose and scope of what might be called ‘cosmologies’ varies both between groups and individuals. An effect of this kind of approach has been to treat cosmologies as monolithic and static, which Abramson and Holbraad identify with concerns with classification, structure and cognitive schemas. It should be noted in relation to ‘all-encompassing “systems of classification”’ (ibid.) that certain cosmologies, as entertained and developed by certain individuals, do indeed do this – Eight Trigrams cosmology is an example – but again, this is not necessarily true of what has counted as ‘cosmology’ in general in anthropology, and as will be discussed, is manifest only in certain circumstances. Abramson and Holbraad’s second broad

criticism concerns the tendency to see cosmology as a part of a cultural whole that must be fitted together with other parts, such as kinship and economic organisation, a conception that makes the false assumption that 'cultures' as wholes are things that really exist, and that cosmology, kinship and so on can meaningfully be separated in this way.

Abramson and Holbraad's third objection deserves greater consideration here, as it is common in social-anthropological criticisms of cognitive and evolutionary approaches to 'culture', which this book seeks to address. The issue here is the degree to which approaches to cosmology assume a hierarchy of perspectives, in which that of the anthropologist is granted priority as an account of the world by virtue of its capacity to describe the others. This relates directly to the purpose of investigating cosmology. An explanatory approach which seeks to account for cosmology as an aspect of human behaviour is necessarily concerned with what variation exists and how it fits in with the rest of the cosmos, including what is known about humans as psychological, biological and physical organisms. While few cosmologies exist for this precise purpose, any cosmological system necessarily rests on certain assumptions about what exists.

Understanding a given cosmology requires taking such assumptions seriously, and while this does involve adapting one's own conceptions as necessary to understand these claims in their own terms, as Abramson and Holbraad argue, nonetheless, to maintain explanatory value an analytical account cannot adopt a contradictory account of reality. Taking cosmological assumptions 'seriously' thus amounts not, as Abramson and Holbraad hold, to stretching our own concepts in an attempt to validate them and thus undermining the original purpose of comparative analysis, but rather to subjecting them to the same rigorous assessment that would be expected of the anthropologist's own claims – and adequately contextualising them in relation to cognition and learning in other domains of people's lives (Astuti 2017). Of course, this is something that anthropologists, including Abramson and Holbraad, do all the time in advancing claims against the cosmological assumptions of other anthropologists and scholars from other disciplines,

which at times come from very different perspectives. It is not clear why the intellectual standards should differ when it comes to assumptions from other contexts – particularly if cultures do not exist as discrete wholes, but cosmologies rather vary dynamically as much as individuals do. Put another way, this means that a realistic and productive approach to understanding cosmological variation must allow for the fact that people, including anthropologists, differ in their goals and cannot all be right (and to insist that they can is generally indicative of a moral or aesthetic stance based on assertion rather than an empirical one based on evidence). It does not follow from this that such an explanatory approach is thereby concerned with disproving the cosmological claims of others – but insofar as it makes claims about reality, it necessarily privileges certain perspectives based on their empirical merit. Whether this is ‘ethnocentric’ in the sense that the goal and attendant empirical claims are not universal, providing it does make efforts to understand indigenous conceptions on their own terms, is irrelevant to the empirical value of the enquiry (and the purpose of explaining the external world is hardly limited to members of the anthropologist’s own society).

The approach I have just set out is precisely of the order of that which Abramson and Holbraad criticise as evident of a ‘reductive impulse’ (2014: 8), which they argue has led to the neglect of cosmology in certain areas of anthropology, as supposedly in the case of cognitive anthropology and its tendency to ‘traduce’ cosmological reckonings ‘merely as instances of cognitive processes at work in the human brain’ (ibid.). Were such an objection to cognitive approaches to stand, it would need to answer the questions of what, if not cognitive processes, constitute cosmological reckonings, and where, if not in brains, they are located. Of course, alternatives are seldom given, and neither are explanations of how exactly such understandings diminish rather than add to the understanding of cosmology as an aspect of human behaviour. Rather, one might suspect that some anthropologists’ horror of cognitive and, God forbid, evolutionary explanations for sociocultural behaviour stems rather from a moral-aesthetic attachment to a mystical notion of irreducible difference (Matthews forthcoming a). At the same time, however, there does exist a risk of seeing more ultimate evolutionary explanations as somehow more ‘real’; both positions are detrimental, and this book seeks to avoid both through

developing a dynamic understanding of similarity and difference in terms of scale, taking inspiration from Eight Trigrams cosmology.

As Sperber (1996: Chapters 1 and 2) demonstrates, social anthropology has primarily been concerned with interpretation over explanation, its hostility to 'reduction' stemming from often-unexamined ontological assumptions. Assuming a materialist perspective, explanation requires that anthropology's analytical categories correspond to the 'natural joints' (ibid.: 6) of the social domain, something that is rarely true of the interpretive family resemblances typically identified as objects of anthropological analysis, such as 'religion', 'marriage' (ibid.: 23) and, indeed, 'divination' and 'cosmology'. This in itself is not a problem, and such interpretive terminology can play a crucial role in explanatory accounts; the terms themselves, however, do not necessarily correspond to natural categories. Sperber thus proposes an 'epidemiological' account of culture, in which cultural phenomena are understood as dynamic distributions of mental representations among individuals. This account has the explanatory advantages of being grounded in material phenomena – in Sperber's words, 'mental representations are brain states described in functional terms, and it is the material interaction between brains, organisms and environment which explain the distribution of these representations' (ibid.: 26). As for reductionism, as Sperber points out (ibid.: 59–60), it is not the case that cultural phenomena reduce to psychological phenomena, but equally not the case that they pertain to a separate domain of reality – rather, they are 'ecological patterns of psychological phenomena'. However, when it comes to the subject of a particular 'cosmological reckoning', as Abramson and Holbraad put it, then this is a psychological phenomenon insofar as it pertains to the beliefs of an individual, something that in no way discounts the influence of distributed beliefs and institutions on the mental representations involved.

Here, it is worth returning to Abramson and Holbraad's charge that accounts of cosmology based on cognitive schemas and similar notions assume holism and stasis. Such criticism is mistaken; the fact that cultural behaviour, including that labelled 'cosmological', depends on mental representations

(including schemas and models) in no way assumes this. All that such accounts suggest is that humans produce and manipulate mental representations via common cognitive mechanisms, not that this results in unchanging uniformity of representations across individuals. Human cognition is inherently dynamic (van Gelder 1998) and mental representations are continually modified (Connell and Lynott 2014). All organisms, humans included, are shaped via the continuous interaction of their biological inheritance with environmental and developmental contingency. Cognitive and evolutionary approaches are thus more than capable of accounting for ‘cultural’ variation, including in intuitive beliefs (Boyer 2010).

Interpretation in anthropological analysis is essential and inevitable. However, a principal aim should be to ensure that what is interpreted is compatible with an explanatory account which accommodates cognition; as Bloch argues, ‘cognition is always central to what is at issue’ in anthropological discussion (2012: 7, emphasis original). An important point in this regard is made by Boyer (1994a) in his cognitive account of religious belief. He argues, in a similar vein to Barth’s comments on ontological assumptions and Abramson and Holbraad’s concerning holism, that anthropological accounts of religion have tended towards a ‘theologistic bias’, explaining religious beliefs as ‘integrated and consistent set[s] of abstract principles’ (ibid.: 40). Against this, Boyer distinguishes between ‘epistemic’ and ‘cognitive’ viewpoints (ibid.: 46–52), the former describing religious representations as statements about the world, and the latter describing the processes by which those representations come about (ibid.: 50). The problem is that epistemic accounts are often unwarranted, describing what people might say were they prompted to make sense of their own religious behaviour. However, cosmological experts, especially in literate societies, are likely to engage in this kind of systematic consideration and establish comprehensive theories of what the world is like. These, however, as highly abstract representations of the cosmos, must be distinguished both from lower-level representations and the means by which they are produced; therefore, in Chapter 1, I draw a distinction between reflective ontological assumptions and systematic ontologies as objects of analysis. The discussion of the content of explicit cosmological theories,

such as those developed by my informants, is ‘epistemic’ in Boyer’s sense, and given that it is the preserve of dedicated cosmologists whose personal understandings vary, it necessitates an adherence to methodological individualism.

Similarity and Difference across Scales in Divination and Anthropology

I am not the first anthropologist to take inspiration from divination in developing an approach to anthropological comparison; indeed, from a quite different perspective, Martin Holbraad does precisely that in his *Truth in Motion: The Recursive Anthropology of Cuban Divination* (2012). However, rather than using ideas from divination to reconceptualise anthropology’s project, my argument is that the approach to scale found in Eight Trigrams prediction, from the cosmos and its constant, universal principles to the level of contingent, dynamic and subjective life experience, offers a model for anthropology to approach cultural difference in a way that simultaneously allows for common evolved cognition and the influence of cultural variation, without presuming the analytical primacy of either. This approach to scale in Eight Trigrams prediction is elaborated in the subsequent chapters, and its application to anthropology is specifically discussed in Chapter 5, but I make some brief points here in anticipation of the argument that follows.

As Holbraad (2012) points out, one of the reasons that divination proves perennially fascinating for anthropologists is that it raises problems of the order of Evans-Pritchard’s classic discussion of the Nuer claim that ‘twins are birds’. That is, divination often involves ideas or conclusions that appear strange, confused or entirely ‘other’ – or so one narrative goes. In divination we find ontological and epistemological claims that, while appearing rational within the terms of their cosmology, might appear self-evidently false to a differently minded observer. The problem is how these apparent divergences in understanding of fundamental concepts, like ‘truth’ in Holbraad’s case, can be reconciled with the obvious fact that communication across cultures,

even regarding divination, is entirely possible, owing to common constraints and predispositions of human thought and behaviour.

To generalise, the question of human universals and particulars produces, if not outright conflict, then mutual hostility between those who lean to either side of the divide. Approaches emphasising universals, typically informed by arguments concerning evolution and cognition (though they could also be historical-materialist, for example), may be dismissed as crude and reductive, denying the subjective richness that characterises the ethnographic encounter. Conversely, stronger relativist claims risk ridicule as hopelessly naive or ill-informed in light of biological and psychological evidence. So, if the Nuer say that twins are birds, is this because they are mistaken, because they are using a metaphor or because they have a distinct ontological conception of what counts as a twin or a bird?

A key argument of this book is that this kind of ethnographic phenomenon in fact presents no such problem – and I address the ‘twins are birds’ problem specifically in Chapter 5. In describing and analysing the cosmology of Eight Trigrams prediction, I present a perspective that views reality as what I call ‘homological’, in which resemblances between phenomena are understood to indicate underlying ontological affinity and common causal mechanisms, and in which similarity and difference can be understood according to a set of universal principles that are nonetheless acutely attuned to scale. In Eight Trigrams prediction this amounts to different cosmological aspects of phenomena becoming relevant at different scales, from the emotional effects of a specific human relationship, to an ongoing set of life circumstances, to an individual life or place, and ultimately to the cosmos as a whole. Divination is about accounting for the subjectively felt contingencies of individual lives and problems – the relativity and richness of day-to-day experience – but it is also at its core about establishing accurate knowledge of this in terms of the cosmos as a whole. It thus offers the ideal lens through which to consider the problem of reconciling the universal and the particular.

The approach of Chinese correlative cosmology, its sensitivity to scale and the importance it places on relationality and coherence offer anthropology an excellent model. To be sure, mine is a ‘universalist’ approach in that it assumes the existence of a single reality that is more or less knowable. Likewise, it draws heavily on the cognitive sciences to make its case – but in doing so emphasises that talk of cognitive universals is itself a matter of scale, in terms of the object of analysis (an individual, a group, a society, a species), and that cognition is best characterised not as a universal ‘natural’ substrate onto which sociocultural particulars might be added, but as a dynamic learning system that relies on the continuous interplay of development, life history, memory, social relationships, evolutionary heritage and continually shifting environmental conditions. What this approach does not do is deny the ‘reality’ of subjective experience and particular understandings of the world. The ultimate problem with the dichotomy between the universal and the relative is that both sides rely on a claim that the phenomena they pay attention to are somehow more ‘real’. Human cognition, however, is a matter of tendencies and propensities rather than absolute universality or relativity, and is not best understood by denying or avoiding more ultimate (e.g. evolutionary) explanations based on fear of reduction, or by assuming that more ultimate causation is somehow purer by virtue of its being less proximate. The approach set out in Chapter 5, through its attention to scale, allows for the reality of all levels, emphasising not their degree of reality or purity but their relevance to particular phenomena.

Structure of the Book

The book is structured to arrive at the concluding discussion of scale via the ontological and epistemological conceptions employed in Eight Trigrams prediction.

Chapter 1 asks what can actually be concluded about ‘ontology’ from ethnographic observation. Considering a fengshui practice of keeping fish tanks to encourage good fortune – an example broadly analogous to others from different ethnographic contexts that have been used to bolster claims for the influence of ontology on lived practice – this chapter argues that such claims of ‘deep ontology’ are made too hastily. The case of fengshui fish tanks reveals that the differences between lay and expert understandings are such that they cannot straightforwardly be taken as indicative of a common underlying ontology. The question of whether experience and practice are organised according to a ‘deep ontology’ that renders them coherent thus pertains to the level of the individual actor. However, even on this level, intuitive and reflective cognition need to be differentiated, and the latter differentiated again on the basis of the degree of systematic reflection to which ontological assumptions are subjected. This leads to a framework for understanding ontology on the level of individual cognition that distinguishes intuitive ontological categories, reflective ontological assumptions and systematic ontologies.

Chapter 2 takes this framework forward, focusing particularly on the level of systematic ontology as understood by experts. This is characterised as ‘homological’, based on an understanding of resemblances between beings and phenomena indicating underlying ontological similarity. This chapter presents key tenets of Eight Trigrams cosmology, particularly the implications of a monist understanding of qi as the fundamental constituent of the cosmos, the role of cosmogony and the attitudes of diviners towards the compatibility of Eight Trigrams cosmology with other cosmologies, notably that of modern physics. All of these ideas are implicit in divination practice (here Master Tao’s six lines prediction is presented as an example), but divinatory interpretation in fact involves the interplay of different levels of cognition, and strictly speaking the coherence of divinatory practice and cosmology is a product of retrospective reflection. The particular homological character of Eight Trigrams cosmology, and the relationship between different cognitive processes in its application, are then discussed in terms of Philippe Descola’s influential comparative approach to ontology based on conceptions of continuity or discontinuity between beings.

Chapter 3 concentrates on diviners' epistemological accounts of divination. Here, the broader ontological claims of Eight Trigrams cosmology are brought together with the practice of divination itself. Both diviners, Master Tao and Ma Jianglong, make important distinctions between principle, relying on the key epistemological claim that resemblances between phenomena indicate underlying commonality in terms of qi, and practice, which must account for the inevitable fallibility of human observation. The former makes divination possible in the first place, and is ultimately derived from the Yijing itself, while the latter leads the diviners to place emphasis – and ethical importance – on being 'accurate' (zhun). Both Master Tao and Ma Jianglong were concerned with establishing the cosmological coherence of phenomena investigated during divination, including consideration of modern phenomena unknown to the creators of the hexagrams. However, they did so in different ways, emphasising human fallibility to different degrees and placing greater or lesser emphasis on following intuitive connections in divinatory interpretation. Thus, the investigation of the two diviners' ideas indicates some of the potential range of epistemological claims that can be supported by a common set of ontological and cosmological assumptions.

Having both established an analytical framework for understanding ontology as a phenomenon of individual cognition and demonstrated the homological character of contemporary diviners' ontological claims and its effects on their epistemological accounts, Chapter 4 turns to the historical development of homologism and recurring debates in sinology concerning the character of Chinese correlative cosmology. Correlative cosmology has often been contrasted with 'Western' or 'European' 'causal' thinking, scholars having emphasised its focus on relations and analogy rather than essences and causation. Examples from several early Chinese texts indicate that, like contemporary Eight Trigrams cosmology, cosmological treatises did assume causal relations between phenomena, and in doing so also allowed for some form of reductionism. In light of this, it is necessary to draw an analytical distinction between correlative schemas that apparently served simply as taxonomies, on the one hand, and those that were intended as cosmological

claims. During the Warring States period and continuing into the Han dynasty, a shift from an analogical to a homological ontology can be discerned, leading to a change in the nature of divinatory practice, to one which emphasised explanation in terms of cosmological causes.

Chapter 5 draws together the ethnographic and historical material presented so far to advance a comparative approach to ontology and cosmology – one which accounts adequately for the role of universal cognitive mechanisms while retaining due sensitivity to ethnographic and historical specificity. It does so by taking inspiration from the way in which resemblance and scale (from the human to the cosmic) are understood in Yijing cosmology. Homology provides a productive lens for looking at cross-cultural similarities and differences, which is also scalable down to the level of individual cognitive variation. Consideration of humans' shared evolutionary heritage and behavioural plasticity suggests that recurrent social forms indicate underlying common patterns of response to environmental circumstances. There is no obvious reason to assume that this would be any less true of recurring structural resemblances between cosmological beliefs; a scale-focused approach facilitates investigation of the degree to which variations between individuals, and between societies as aggregates of individuals, reflect underlying similarities and differences. At the same time, though, taking inspiration from Eight Trigrams cosmology's conception of scale, and its ability to understand human experience as simultaneously subjective and reducible to underlying cosmic principles without compromising either level, this approach to variation in cosmology allows for the richness of local understandings while also preserving what is known about universal propensities. Understanding these as aspects of human behaviour that become more or less relevant at different scales of analysis (from different individual behaviours to variations between individuals, groups, societies and so forth) allows for explanation while avoiding the problem of a reductionism that maintains that the finer and more specific proximate details of human behaviour are somehow less significant or 'real' than more ultimate explanations.

So, overall, the argument opens with an ethnographic vignette of the kind that is typically employed as evidence of an underlying ontology guiding behaviour. This is presented in conjunction with a discussion of cognition, to demonstrate the problems with existing anthropological approaches and establish the necessary groundwork for the subsequent analysis, in particular the reflective nature of ontology. Chapter 2 uses this qualified notion of ontology to present common ontological perspectives taken by diviners, while also showing how individual diviners' accounts diverge. Having established this, we are in a position to bring together Eight Trigrams cosmology and the practice of divination itself; Chapter 3 therefore illustrates the ways in which diviners reflectively bring together ontological, epistemological and ethical understandings to present coherent cosmological theories. Having thus shown how cognition and cosmology relate to one another and the circumstances in which reflective accounts of cosmological coherence are established, in Chapter 4 the focus moves on to the transmission of cosmological representations, presenting an epidemiological approach using examples from early Chinese texts. This illustrates different scales of ontological reflection in a historical context, and situates cosmology as a property of individual cognition in a wider temporal and spatial scale, as part of group-level patterns of transmission. So, by Chapter 5, an account of Eight Trigrams cosmology has been developed which illustrates an explanatory framework for cosmology as a product of individual cognition on different scales (intuition and reflection), contextualised in an epidemiological account of its historical development. Chapter 5 itself recapitulates the conceptions of scale that diviners use to understand resemblances between phenomena across scales, and combines it with the cognitive approach to present an analytical framework for understanding shared, evolved cognitive capacities and cultural diversity.

First, though, the relationship between ethnographic evidence and conclusions about ontology and cognition needs to be examined. So we begin in the next chapter, naturally, with fish tanks.

Notes

1. The reader is referred to Smith's (2008) English-language history of the Yijing and Zhu Bokun's (1995) four-volume account of its exegesis from the Spring and Autumn to Qing periods for comprehensive studies.

2. It remains to be seen how far this will continue, given the major reassertion of party-state control of religious affairs under Xi Jinping, at its most extreme in forced re-education of Muslims in Xinjiang, but also apparent in other religious practices throughout China.

3. This approach broadly follows Maurice Bloch's (2012) argument for anthropology in general to pay far more attention to cognition.

4. That is, I consider their merits and demerits as theoretical concepts, rather than dwelling on the social context of their production as ethnographic objects (for the same reason that anthropologists take, say, Foucault's concept of biopower as a concept rather than as an ethnographic object). While this approach shares the idea of adopting ethnographically derived concepts with the 'recursive' project of using local concepts to reframe anthropological analysis advocated by Martin Holbraad and others (Holbraad 2012, 2013; Holbraad and Pedersen 2017), it does not adopt the key premise of the latter approach, that such reframing is inherently based on radical cultural difference and requires 'ontological' reconceptualisation of anthropological concepts. That approach is extensively critiqued in Chapter 5, and in the anthropology of divination, specifically in Matthews (forthcoming a). Rather than treating the concepts of diviners as useful due to their exoticism, I believe they are useful because diviners' epistemological concerns are not especially far removed from those of anthropologists, and to that extent, diviners are also social theorists, despite obvious differences in the practical uses to which their knowledge is put.

5. Fieldwork focused on Eight Trigrams prediction, but also included time spent with volunteers at a nearby Buddhist temple, and from 2014, with a group of ‘national studies’ (guoxue) activists concerned with promoting the study of the Chinese classics. This, together with my wider experience spending time and conversing with friends in Hangzhou, has informed my understanding of wider, non-expert perceptions of divination and its broader social context, which I have discussed elsewhere (Matthews 2017a).

6. Though I never witnessed this during fieldwork, Master Tao informed me that occasionally the police would move diviners along. As already mentioned, between my 2015 and 2018 visits he had been forced to conduct consultations less visibly. This reduced the number of spontaneous consultations for passers-by, but also compelled him to start operating via the social media app WeChat, which had resulted in a much fuller schedule.

7. Transliteration: Yong Zhongguo Qingchao Qianlong qian san zhi, yong shuangshou wozhu yaodong diuxia, you Manwende wei zhun, yige Manwen wei yi dian, erge wei liang dian, sange wei yi quan, sange dou shi ‘Qianlong tongbao’ zhe wei yi X, yi dian wei yang, er dian wei yin. Yi quan wei yang, yi X wei yin, yi quan wei yangdong, zhu guooquzhi shi, yi X wei yin, zhu weilaizhi shi, mei yi gua wei liu ci chengwei liu yao. Qian san ci wei xiagua, hou san ci wei shanggua, ranhou shang, xia liang gua dian chu guaming.

8. For further discussion of this difference in forms of interpretation, see Matthews (forthcoming a).

9. The problems of the ‘rationality’ debate have been ably assessed with respect to the problems posed by divination by Martin Holbraad (2012: 18–74; see also Shaw 1991). Chapter 5 returns to the problem of ‘bizarre’ beliefs in detail.

10. Throughout the book, these terms are used in the specific sense outlined here.

11. This section concentrates on presenting an overview of dual process theory, its relationship with modularity and some broader considerations of relevance for anthropologists. Evidence relevant to questions of ontology is discussed in Chapter 1, and in addition to the works cited in the text here, the reader is referred to Chaiken and Trope (1999), de Neys (2017), Evans and Frankish (2009) and Sherman et al. (2014).

12. To better account for this, Evans (2009) proposes a category of ‘type three’ processes, defined functionally in terms of recruiting working memory and resolving conflict between type one and two processing; while important for understanding the cognitive mechanisms at work, this distinction is of less direct relevance to the arguments made in this book. A similar distinction between the ‘algorithmic’ and ‘reflective’ levels of system two is proposed by Stanovich in the same volume (2009).

13. Modules and representations here can be considered in functional terms; they should not be taken, as I use them, as making any definite statement about the neurological architecture underlying cognition.

14. Note that while in this case, reflection yields a normatively correct answer, it should not be assumed that cognitive biases are simply a product of intuition (Evans 2011: 87–88).

15. See also Matthews (2021a, forthcoming a, forthcoming b).

16. Not least ethics and morality – see Haidt (2001) for an especially relevant discussion of the interplay between intuition and reflection.

DEEP ONTOLOGY

A Fishy Business

Cancan's Fish Tank

I met Cancan in March 2014, having been invited to his office in a neighbouring city by his wife, a client of Master Tao. They wanted me to be involved in some sort of advertising for his company, but beyond that I was not sure quite what to expect from the visit; in any case, I took it as a good opportunity to get to know the family of one of the divination clients and to visit another city. On arriving at Cancan's office, following a slow and crowded train journey away from Hangzhou, I discovered that his company made various botanical cosmetics. I was greeted by a receptionist and invited to sit with a cup of longjing tea and flip through a stack of promotional materials while Cancan finished a meeting.

As fascinating as were the minutiae of the company's seaweed-enhanced facemask technology, I was soon distracted by the busy and colourful aquarium that occupied part of the far wall of the lobby. Its presence was not unexpected; fish tanks are near-ubiquitous in Chinese offices, and also frequently seen in restaurants and other businesses, as the word for 'fish', yu, is a homophone for 'abundance'.¹ By placing a well-stocked aquarium in the lobby of one's office, one supposedly encourages abundance to flow in. This kind of use of homophony is very widespread in China and not at all limited to fish, a point returned to below. For the moment, it accounted for the presence and positioning of Cancan's fish tank. What it did not account for, though, were the particular fish inhabiting it. Typically, an office fish tank contains one of three species: the entry-level common goldfish (which has an auspicious reddish colour), the more common and more auspicious parrot cichlid or 'wealth fish' (facai yu) (auspicious red colour and round shape), or – one for the connoisseurs, the gold standard of office aquatics – the arowana, or dragonfish (longyu), an imposing and prestigious species with a four- or five-figure price tag. It comes in gold, red or silver, gold being the most prestigious and expensive, and is a definite status symbol, requiring not only a major investment in purchasing the fish itself, but also in terms of food, a suitably large tank to accommodate it (it grows to a metre or so) and adequate water filtration.

Cancan's tank, though, was something else entirely, containing a veritable fishy menagerie: the standard 'wealth fish' were accompanied by not one but two arowana (one silver and one gold), various large, colourful species of cichlid fish (two striped, and one black and one red), various assorted catfish that would one day outgrow their tank several times, and crowning it all, a young alligator gar – a predator of saurian appearance that, when adult, reaches around 2.5 metres in length and eats any other fish it can get. This motley assortment did not bode well for the long-term welfare of Cancan's charges. All of these fish were relatively young and, hence, small, but Cancan had clearly been overambitious in his stocking or was planning to later invest in an aquarium that would need to occupy the entire lobby. While for the ichthyologically uninitiated, such details may have been fairly meaningless, as a keen fishkeeper myself I found this extremely intriguing, if rather concerning. Given that this range of species went well beyond the minimum required for auspiciousness, I supposed that Cancan might enjoy fishkeeping as a hobby and that we might, as such, have something of common interest to talk about.

At this point, just as I had become entranced by the fish tank, Cancan appeared and greeted me enthusiastically. Larger-than-life and sporting some rather natty pastel-rimmed glasses, he hurried me away from the aquarium before I could segue into asking him about his fish. Much of my visit involved him presenting me with various cosmetic products which I held up in front of a camera, either alone or standing together with him or his employees; the resulting images appeared at regular intervals over the subsequent months as adverts on his WeChat social media profile. Luckily, though, this did not take up all our time, and we retired to his office, which evinced a similar no-holds-barred approach to decor to that with which he had stocked his aquarium. Almost every free space was occupied by some kind of fortune-promoting trinket, including a pair of qilin statues (an auspicious mythical creature also referenced in six lines prediction), a three-legged toad figurine, a small terrapin in a fishbowl for longevity and so many plants promoting various forms of luck that the whole effect resembled an especially auspicious garden centre. Cancan explained that all of this was for fengshui purposes, to maximise good fortune. He was very interested in this, and primarily motivated by the power of fengshui principles to create what he called a ‘comfortable’ (shufu) atmosphere and a ‘mystical feeling’ (shenqide ganjue). However, his explanations did not go much further, and he did not seem so committed to gaining deeper knowledge of the underlying principles, as a diviner would, as simply acquiring and positioning as many auspicious items as possible. This is not to say at all, though, that he didn’t consider this important – it was clearly important enough for him to commit considerable time and resources to, and it transpired that this commitment extended to his fish tank.

Unfortunately, Cancan’s eagerness to discuss his aquaristic exploits was considerably more limited than mine, but he did explain some of the rationale behind his choice of species, and mentioned that in fengshui water is associated with wealth. As for the fish, the red cichlid was auspicious for its colour, like the standard wealth fish; the black one ward off evil (bixie). The striped cichlids were for ‘smooth sailing’ (yifan fengshun), and as a pair, they promoted stability. As for the others, Cancan was unsure – apparently he had made his choices based on the advice of the shopkeeper, likely one who specialised in fengshui fish tanks.² So, much as with his office, with his fish tank Cancan had apparently focused on maximising fortune in minimal space, which from a fishkeeping perspective explained a lot. His unfettered aquaristic zeal had led to an overstocked tank, which he explained was now tinged yellow with medicine as several fish had fallen ill. Some of the catfish, whose ostensible role I later discovered was to consume the waste of the other fish, were failing in their duties (likely because they don’t actually eat the waste of other fish but produce a prodigious amount of their own). Unfortunately, though, I was unable to follow up on what happened to the tank, and how Cancan responded to it, as he moved abroad shortly after our meeting. I do not know what became of the fish.

‘Ontological’ Explanations

The guiding question of this chapter is that of what should be made of Cancan’s activities and statements in light of anthropological concerns with ontology,³ because explicit cosmological theories necessarily make ontological assumptions, and much anthropological literature, as discussed below, presumes that such ontological principles must guide activity we might describe as ‘cosmological’. Like Eight Trigrams prediction, fengshui is based on the cosmology of qi and the Five Phases. Fengshui consultations are commonly offered by diviners, including Master Tao and Ma Jianglong, and fengshui considerations are typically borne in mind during Eight Trigrams prediction. Quite apart from the details of consultation, the way in which people articulate fengshui principles can certainly provide an ethnographic window onto their understanding of cosmology. More than that, these practices constitute precisely the type of ethnographic material, apparently rich with implicit assumptions about similarity, difference and change, that might lead an anthropologist to draw conclusions about an underlying ‘deep ontology’ (Holbraad and Pedersen 2017; Scott 2007).

Considering Cancan's fengshui practices, we might identify features diagnostic of the 'mode of identification', or deep ontology, that Philippe Descola (2013) calls 'analogism'. The association of fish with abundance based on homophony, or the keeping of a turtle for longevity, implies a certain conceptual ordering of entities and properties based on analogy and in defiance of natural kinds (so one kind of fish is identified first and foremost with a certain form of fortune, for instance). This kind of practice, together with its extension in Chinese cosmology to everything from bodily organs to emotions to animal kinds to colours to flavours to kin relations to positions in the overall social hierarchy, suggests for Descola that the world is perceived by analogists as fundamentally being made up of myriad ontological singularities, defined in terms of discontinuities on the level of both physicality and interiority. The only way to make sense of this, in Descola's view, is to map a network of resonant connections between entities based on salient conceptual connections between them. This is what characterises his 'analogist' mode, and indeed, he takes China as a paradigmatic example of an analogist society, referring specifically to the system of cosmological correlates on which specialists in Yijing divination, fengshui, Chinese medicine and so on base their practices. Cancan's practices, in this view, are thus exemplary ethnographic evidence of analogism in action, governed by deep ontological principles of relating to different kinds of beings.

In reality, though, they are nothing of the sort. There is a world of difference between the explicit theories of the cosmos articulated by fengshui experts and the lay practices of individuals like Cancan. While we can attribute the former to coherent guiding ontological principles, we cannot assume the same of the latter (and likewise cannot make this assumption about kinship systems, sociopolitical structures and so on, let alone the further assumption that all of these would follow from a single underlying ontological framework). Simply stated, with a nod to Evans-Pritchard and his enduring presence in such discussions, deep ontology, as anthropologists conceive it, cannot exist. This does not mean that comparative ontology is not a worthy object of anthropological enquiry – to the contrary. However, it should be recognised that the remit of 'ontological' explanations is limited, and is necessarily concerned with reflective beliefs and, specifically, explicit accounts of the nature of reality or parts of it, rather than 'deep' mechanisms by which humans apprehend the world. The purpose of this chapter is therefore to establish a realistic framework for understanding ontology, particularly as it relates to cosmological practices like fengshui and divination.

In considering cultural practices as indicators of ontological assumptions, anthropologists should be mindful of Pascal Boyer's (1994: 40) critique of 'theologistic bias' mentioned in the Introduction – that is, of attempting to explain religious representations as coherent sets of abstract principles. Such attempts are often unwarranted based on ethnographic observation alone, rather describing what people might say were they prompted to make sense (retrospectively) of their own religious behaviour. This applies likewise to anthropological accounts of ontology; the potential to read coherent principles into disparate practices provides no indication of the cognition behind such practices. In the following sections, I consider such claims as made by proponents of 'deep ontology' and their inherent assumptions about human cognition, particularly in relation to dual process theory and cognitive-scientific approaches to concepts. Bearing this discussion in mind, I then return to Cancan's lay practice of fengshui, and to an expert, Ma Jianglong, to characterise 'ontology' in practice and qualify it as an analytic concept still useful to anthropologists.

'Deep' Ontology

First, a qualification. I am not denying that explicit cosmological beliefs rely on more or less explicit ontological claims. I am not denying that such cosmological beliefs often directly inform practice – clearly they do, even as they are then influenced in turn by practice. Nor do I deny that such cosmologies can and do become socially and institutionally entrenched, and thereby engender further practices and influence various aspects of society and behaviour. This, though, does not mean that the ontological assumptions of explicit cosmology themselves become so entrenched (for example, Cancan can invoke salient cosmological concepts from fengshui without mentally representing them as part of a coherent cosmological theory based on similarly coherent ontological foundations).

A corollary of this is that ‘cosmology’ as defined in the Introduction can have explanatory value even when it is not invoked by actors, and that this helps make sense of the many repeating structures of action and ideas we find in the ethnographic record; this cannot be said of ontology. Therefore, I am not taking issue here with the kind of approach exemplified in anthropology by Marshall Sahlins’s writings on cosmology (e.g. 1987), or the comparative work of Gregory Schrepp (1992) and G.E.R. Lloyd (2014), in terms of cosmology having some causal relationship with social life and practice (though of course the nature and extent of that relationship is up for discussion).

It is, though, necessary to qualify this with the perhaps obvious points that cosmological knowledge is never evenly distributed among individuals or over time, that practice does not uniformly follow the coherence of cosmological principles and that cosmology corresponds to a certain level of explanation (consider, for example, Boyer’s (2018: 126–36) analogous discussion of kinship in terms of normative social institutions and evolved propensities, and the tensions and inconsistencies this produces). It is also worth bearing in mind the propensity of the human mind to seek and emphasise patterns, and how this might affect both a proclivity for coherence or similarity in social life, and anthropologists’ own propensity to see the societies they study as enacting a coherent underlying logic across various domains of practice (a point returned to in Chapter 5).

What is at issue is the precise nature of cosmological causation of behaviour, which has been taken up by several proponents of an anthropological focus on ‘deep’ ontology. It is true, as Holbraad and Pedersen point out (2017: 55–65), that this trend is very much in the tradition of the cosmological focus of Sahlins and Schrepp, and that some figures associated with it, notably G.E.R. Lloyd, have directly addressed the subject of ‘ontology’ as a culturally variable phenomenon with broad effects such as those just described. What is distinct about the deep ontology approach, exemplified in the work of Michael Scott (2007) and Philippe Descola (2013), is the role ascribed to ontology, referring to a conception of the most fundamental categories of being and the relations of similarity and difference between them, as the determining factor in human social life. This is distinct from the more general claim, made by Sahlins (1987: 145), that ‘human social experience’, and by extension, the instantiation of culture in action, involves the ordering of perception according to one of various possible historically contingent cultural schemes, which are themselves re-evaluated in relation to perception – an argument which is essentially descriptive and leaves ample room for various modes of cognition, methods of transmission, and individual variation. Instead, Scott’s and Descola’s arguments posit deep ontological assumptions as subconsciously guiding perception and behaviour, and contend that resemblances across domains of social life occur first and foremost because of this. That is, rather than arguing simply that explicit ontological assumptions and cosmologies help to shape institutions and practices, which in turn help inculcate a certain habitus even if the original knowledge is not held by all practitioners (such that the influence of ontology and cosmology is realised through imitation, habit and so on, without need for mental representation of fundamental assumptions), deep ontologists argue that somehow, a specific set of coherent ontological assumptions, held more or less by all members of a group, is the key causal mechanism accounting for social structure, practice and imagination in that group, and is in turn, somehow, transmitted accordingly to subsequent generations over time. Descola stands out for attempting to ground this causal mechanism in cognition, with reference to ‘schemas’; however, as discussed below, this explanation is underdetermined by the available cognitive-scientific evidence.

While Scott and Descola make an explicit argument for this kind of causal role of deep ontology, this perspective is implicitly endorsed by other anthropologists concerned with ontology, including Holbraad and Pedersen, despite their distinct theoretical goals.⁴ Such claims, implicit or explicit, are unfounded, and are detrimental to an effective explanation of cosmology grounded in cognition. In order for the laudable project of ‘comparative ontology’ (Scott 2007) to move forward, it must rest on an adequate understanding both of the nature of human cognition and the limits of ethnographic inference. The following section discusses and critiques some key claims made regarding deep ontology, focusing on Scott and Descola. This is followed by a discussion of cognition in relation to these concerns.

The Claims

In his ethnography of the Arosi of Solomon Islands, Scott (2007) makes a broad case for the comparative study of ontologies as culturally particular organising principles of social life. For the Arosi, he identifies ‘poly-ontology’, arguing that Arosi society’s organisation into distinct matrilineages, explicitly understood as having different origins (ibid.: 10), betrays an underlying apprehension of the world as consisting of multiple ontologically distinct categories. This can be contrasted with ‘mono-ontology’, that is, conceptions of reality rooted in a single ontological category based on a single origin. Drawing on the work of Roy Bhaskar, Scott emphasises ‘ontological stratification’, arguing that ‘each level of reality in a stratified ontology entails practical tendencies, these emerge from, and are influenced by, the deepest level of being’ (ibid.: 13). Scott’s apparent claim, though, is not that this is true in principle of a given ontological theory when considered philosophically, but rather that different aspects and institutions of society can themselves be understood as ontologically stratified, their forms emerging from deeper ontological principles, according to the local ontology as a foundation for cosmology. In his view, ‘anthropological interpretations must situate praxis relative to the deepest level of ontology operative within a given cosmological framework’ (ibid.: 19). He thus refers to the object of such comparative anthropology as ‘onto-praxis’, the study of which he defines as ‘the attempt to identify the deepest level of ontology operative in a given time and place, and to situate particular ideas, practices, and institutions with respect to the proper strata of ontology to which they give expression and on which they may impinge in transforming ways’ (ibid.: 21). This conjecture goes considerably beyond the general claims made by anthropologists such as Sahlins that culture influences and is influenced by how events are understood. Scott implies that a focus on onto-praxis is necessary to reveal cultural difference. For example, he notes that the relationship between chief and warrior among the Arosi resembles that found elsewhere in Polynesia and even in some ancient Indo-European societies, but that this ‘phenomenological similarity’ masks a deeper difference revealed when we understand this relationship in terms of deep poly-ontology (ibid.: 21–23). The implication is that such cross-cultural relations of resemblance are a result of superficial convergence stemming from very different ontological starting points – paralleling his own insistence on the importance of cosmogony as a basis for understanding deep ontology.

What is asserted is thus that culturally particular deep ontological assumptions play a prior causal role in shaping social behaviour and understanding. This claim itself has significant ontological implications, not least of which is the existence of some kind of mechanism that guides apprehension of the world in terms of fundamental assumptions of similarity and difference between beings (that is, it carries with it assumptions about human cognition); indeed, as discussed below, Descola (2013) elaborates a similar view in terms of cognitive schemas, and the present critique applies equally to much of his approach. Despite his explicit claims regarding onto-praxis, Scott however does not explain why human action that appears to reflect action or belief in other areas of social life should require ontological assumptions in the first place. Why might it not arise from contingent, retrospective attempts to make sense of the world in light of previously learned categories, convention and individual memory, or unconscious or conscious imitation of others, for example? Moreover, assuming some ontological guiding mechanism is required, where is it to be located? Presumably in the mind of the individual, unless we engage in some highly speculative metaphysics (cf. Sperber 1996), which then poses serious problems of evidence and neuropsychological logistics (is it credible, for example, that the brain is constantly engaged in ontological categorisation based on an overarching principle of identification?).⁵ Can we credibly assume that individuals always operate ‘within a given cosmological framework’ (Scott 2007: 19), if that implies the influence of deeper ontological assumptions, rather than in different frameworks in different contexts, or often in no such framework at all?

Scott and Descola’s basic assumption is that human social behaviour instantiates a coherent ontology, which also motivates thought and action. This is also assumed by Holbraad and Pedersen (2017), despite their own project’s divergence from comparative deep ontology; in fact, some of their suggestions illuminate this issue very well. Holbraad and Pedersen encapsulate their mission to ‘run with’ (ibid.: 2) apparent cultural difference in relation to the Maori ‘spirit of the gift’: ‘asking what people and things “might be” in Maori gift exchange is to ask what they must be for these practices to make anthropological sense’ (ibid.: 4, emphasis original). They are thus concerned

with 'creat[ing] the conditions' (ibid.) to see what cannot be seen from 'our' ontological perspective (similar to Scott's argument concerning the chief and the warrior). What they do not show, however, is that what is being said or done in a given ethnographic context is actually in the business of creating, or resting on, those conditions in the first place. Making apparently 'other' statements or practices into ones that make 'anthropological sense' attributes a world-making coherence to them which, except in cases of explicit cosmological or philosophical exegesis, cannot be substantiated ethnographically. And I do not mean to exempt anthropologists, or 'Westerners', or whoever else, from this – it would be equally mistaken to assume that, say, every claim or action of an anthropologist somehow instantiated, and was motivated by, a coherent ontological substrate (one need only consider, for example, the degree to which anthropologists' convictions, author included, about how society works fail to influence their own decisions in interpersonal relations, politics, habit and so on – in spite of how much we may think we are consistent when prompted to reflect on it). People are not philosophers all the time, and ethnography alone hardly justifies Holbraad and Pedersen's insistence that anthropologists should continue past the question of 'how one sees things' to the entirely speculative one of 'what there is to see' (2017: 5). While not in the business of doing comparative ontology, and tending to grant more credence to individual differences in perspective, Holbraad and Pedersen nonetheless rely on an assumption that people operate according to deep ontologies, and that these lie at the root of cultural and individual differences.

To put it crudely, the assumption of deep ontology follows an epistemological principle along the lines of, 'as it is possible to infer an underlying coherent logic from disparate cultural practices, such an underlying logic must motivate those practices'. This relies on a curious degree of faith in the reliability of ethnographic observation (and in Descola's case, historical records) as a means of access to the fundamental workings of the minds of others, and a very generous understanding of the depth of information yielded by ethnographic inference.⁶ Deep ontology implicitly assumes that ethnographic knowledge, or at least knowledge at the resolution of observable social behaviour, is the only knowledge necessary to make these claims (this is doubly so in the case of Holbraad and Pedersen's 'turn' and its focus not on contributing to cumulative theory but on a perpetual programme of conceptual experimentation). This presents obvious problems given what is known about cognition, but also simply given sufficient reflection on the subjectivity of judgements and the degree to which people actually pay attention to and act consciously in their environments. Clearly, cognition is central to an adequate anthropological approach to ontology.

Philippe Descola does attempt to ground deep ontology in cognition. In his major work *Beyond Nature and Culture*, he presents a comparative framework rooted in the distinction that humans draw between 'an internal self and an external self' (2013: 119), which he refers to as interiority and physicality. He identifies four broad 'modes of identification', defined in terms of 'the ability to apprehend and separate out some of the continuities and discontinuities that we can seize upon in the course of observing and coping practically with our environment' (ibid.: 115), and the nature of relations subsequently established between entities. Descola presents this as the ascription or denial to other entities of a physicality or interiority (or both) similar to those of the subject. The four modes are logically derived from the possible relationships that may exist between physicality and interiority, and are as follows: animism, which rests on an assumption of ontologically continuous interiorities across beings, but discontinuous physicalities; naturalism, the inverse of animism, positing a continuity of physicality and discontinuity of interiority; totemism, characterised by a continuity of both physicality and interiority; and analogism, built upon discontinuous interiorities and physicalities (with which he identifies China).⁷ Descola argues that these fundamental distinctions may be elaborated in all manner of ways, giving rise to the full range of human cultural diversity, but also that they have far-reaching implications for cosmology, classification, personhood and social structure, such that certain commonalities of culture and society may be observed between societies dominated by a given ontological type. That is, modes of identification are presented as intuitive mental structures that play the leading causal role in generating cultural diversity.

But where, cognitively speaking, or on what level, might a mode of identification actually exist? Descola devotes a chapter of *Beyond Nature and Culture* to characterising modes of identification, as well as the modes of relation he later discusses, as 'integrating schemas', cognitive structures that serve as abstract, thematic models mobilised to

make sense of a wide range of circumstances (2013: 104). He describes these as ‘nonreflective’, meaning that they ‘do not rise to the surface of consciousness’ (ibid.), and this designation would also cover, for example, Maussian techniques of the body or Bourdieu’s habitus. Though Descola also acknowledges the existence of ‘explainable’ schemas, of which an individual is consciously aware, he does not problematise the implications of the distinction.⁸ For Descola, any one of the modes of identification constitutes a particularly wide-ranging integrating schema, an internalised, intuitive understanding of the relationship between interiority and physicality transferable across virtually all domains of existence. It is here that his approach encounters problems, highlighting the need for more comprehensive accounting for cognition in this type of analysis.

Descola’s starting point of a universal separation between the self and the physical body can be considered well within the range of ‘intuitive’ beliefs. However, regarding modes of identification themselves, he makes the very far-reaching assumption that human minds can and do integrate all aspects of experience into a single schema. In his view, ‘integrating schemas’ constitute unconscious mechanisms by which collective practices are integrated into a coherent whole, transferable across virtually all domains of collective existence. For example, the integrating schema of analogism would amount to an intuitive belief that all entities differ in terms of interiority and physicality. Now, the universal distinction between interiority and physicality as aspects of the subjective self may be unproblematically considered intuitive, but this is not necessarily true of how these aspects are ascribed to other beings (see Boyer 2010: 383). Descola assumes that it is possible for individual minds to integrate collective experience into a single coherent schema in the first place. While he refers to the literature on analogical transfer as a means of schema induction in relation to this (Gick and Holyoak 1983), he does not provide any evidence that schemas thus induced are integrated into a single overarching schema (Gick and Holyoak make no such claim – they simply argue that it is more cognitively efficient to map from a source analogue to an abstract schema than to a target analogue in a given instance of analogical transfer). Moreover, as pointed out by Christina Toren (2014), Descola’s conception of schemas does not readily account for how they might be constituted in the context of the dynamic process of development, learning and life history.

While Descola’s argument that individuals within a collective gradually accrue similar schemas, accounting for similarities of understanding and allowing the mapping of such similarities, is well taken insofar as individuals may come to share understandings that may be more or less reflective, it is at best tangential to the implications of the existence of integrating schemas. Rather, the ‘integrating schema’ appears in fact to be an artefact of Descola’s own assumptions that common identifying factors across practices and beliefs within a collective must evince a single underlying cognitive structure. That is, really, beyond referring to actually explicit ontological theories, the four modes of identification amount to reasonable assertions of the conditions of possibility for worlds in which various beliefs and practices of a collective would be validated as ontologically coherent. So, for example, an analogist group that adheres to beliefs in spirit possession, groups phenomena according to correlates and orders entities according to an immutable discreet hierarchy would require a universe in which all entities comprise ontologically discontinuous singularities along the axes of physicality and interiority in order for its beliefs and practices to be validated. Returning to the ethnographic case of Cancan’s practices, such an assertion might constitute a means of rationalising Cancan’s fish tank and his identification of fish with various forms of fortune – and explaining similar practices among his friends, colleagues and so on such that they appear coherent. However, as an anthropological interpretation of Cancan’s behaviour it is of limited value if Cancan himself does not engage in ontological speculation, if he is not coherent in his thought or action between contexts and if his behaviour is not guided by such an integrating schema in the first place. There is no obvious reason, nor any ethnographic basis, for which explanation of his behaviour requires that such a schema exists or that he believes intuitively or reflectively that reality is constructed along analogist lines. What, then, should be taken into account for a cognitively realistic account of ontology?

The Problem: Ontology in Light of Cognition

An accurate account of ontology requires consideration of the role of concepts in human cognition. Ontological speculation, after all, requires conceptualising fundamental categories of being, and a deep ontology approach presumes the existence of both concepts of beings and their attributes (self, other, physicality, interiority and so on) and concepts pertaining to relationships (similarity, difference and so on) – hence Descola’s combination of modes of identification with six modes of relation. The ‘deep ontology’ account rests on the assumption that at the most basic level, concepts themselves are highly conditioned as components of coherent models of the world; in Descola’s account, interiority and physicality are taken as universals, but the culturally specific way in which the two are related in concepts of beings is seen as so fundamental that it affects immediate identification. This assumption is deeply flawed in that it ignores the dual-process distinction between intuition and reflection; it ignores evolved, universal, module-specific intuitive concepts and categories; it ignores changes in these concepts and categories through child development; and in certain cases it posits a level of cognitive difference within the human species which exceeds that found between humans and other animals. The idea of ‘deep ontology’ makes assumptions about the mind that are themselves based on intuitions about individuals and society (that is, folk psychology and folk sociology), and the evidence for which it is not typically considered necessary to examine in social anthropology (these points are discussed further in Chapter 5). These include the assumption of coherence of ontological viewpoint (and attendant coherence of concepts and categories) across domains (kinship, social structure, cosmology, etc.), an assumption that all concepts and categories are essentially similar in the way in which they are understood and transmitted, and an assumption that this transmission results in ‘shared’ understandings in which concepts and categories prompt the same cultural associations or connotations in the minds of different individuals. In this view, ‘ontology’ is caused by culture and itself causes culture, with insufficient consideration being given to how this might work on the level of individual learning, development, memory, attention, communication and so on.⁹ Indeed, it resembles in broad terms John Tooby and Leda Cosmides’s (1992) characterisation of the ‘standard social science model’ insofar as it relies on explanations for purportedly ‘social’ phenomena in terms of ‘social’ causes, as though these existed on a distinct ontological plane apart from individual psychology and cognitive predispositions (see also Sperber 1996).

What we need to know in order to examine ontology effectively is how concepts are formulated and retrieved in relation to specific contexts, the extent to which they draw on or are constrained by evolved predispositions and learning mechanisms, and the degree to which they are consciously represented and can become intuitive. While cognitive scientists remain divided over specific questions of the nature and precise definition of concepts, the field has yielded valuable experimental findings and theoretical work of direct relevance to the question of ontology. Following Boyer (2010), any comparative study of cultural variations in ‘ontology’ needs to be grounded in evolved cognition – and this involves distinguishing between intuitive and reflective beliefs, in terms of the dual process approaches described in the Introduction. To reiterate, intuitive understanding ‘is simply the occurrence of some information that is potentially consciously accessible and directs the agent’s expectations and behaviours, although the pathways that led to holding that information are not accessible to conscious inspection’ (Boyer 2010: 377).¹⁰ In contrast to intuitions, reflective beliefs involve ‘consciously held information that has the effect of extending, making sense of, explaining, justifying, or communicating the contents of intuitive information’ (ibid.: 378). In Boyer’s description, such intuitions include, for example, the expectation that solid objects will not fuse together on contact, whereas associated reflective beliefs might include an explanation of this expectation in terms of force. Following Sperber (1997: 77–78), the psychological category of intuitive beliefs can be further divided into perceptual and inferential beliefs; for example, a child being shown a bird and told that it is a sparrow spontaneously forms the perceptual belief that what is observed is a bird, along with the inferential belief that sparrows are birds.

Beliefs rely on repertoires of concepts, which themselves are either intuitive or reflective (Sperber 1997). Reflective beliefs result from humans’ capacity for meta-representation (the ability to mentally represent mental representations), and ‘are introduced by explicit theories that specify their meaning and the inferences that can be drawn on their basis’ (ibid.: 79), a process that generates new concepts. Such concepts include, among Sperber’s examples, prime factors or chemical formulae – concepts that can be reflexively understood but not intuitively grasped, requiring explicit deliberative reasoning. Over time, reflective concepts can become intuitive, and vice versa (such as when they are challenged by variant reflective concepts) – but while intuitive concepts can contribute to both intuitive and reflective beliefs, reflective concepts are confined to reflective beliefs only (ibid.:

79–80). It bears repeating that the dual process distinction here does not indicate a total separation of these processes in practice. As Elisabeth Camp (2015) points out, human thought relies on a symbiosis between ‘logical concepts’ and ‘associative characterisations’, which correspond to reflection and intuition respectively. Characterisations in this view are holistic, associative and contextual, and compared to concepts (in Camp’s sense) are ‘more closely tied to perceptual inputs and immediate action’ (ibid.: 611) – as fits the idea of modal concepts discussed below. Concepts, in Camp’s view, provide basic logical units, which can serve to fix the references of characterisations in ways that allow conceptual recombination and their use across contexts. They also include the subset of concepts that Sperber defines as ‘reflective’, which tend not to be accompanied by spontaneous characterisations.

This provides a framework with which we can consider the nature of concepts and beliefs in dual process terms, while bearing in mind the close interplay of both intuitive and reflective processes, and one which already complicates the account implicit in the deep ontology approach. It follows from an understanding of evolved cognition as largely modular that concepts, at least intuitive ones, are themselves module-specific – and that as such, ‘there is simply no possibility of (or need for) a general theory of concepts, if this means a series of general strictures on the representational format of all or most concepts’ (Boyer 2015: 195). That is, what exactly a concept is and how it is mobilised likely depends on its modular specificity (pertaining to a domain of knowledge or action, as described in the Introduction). This is compounded by modal specificity (pertaining to sensory inputs); as Boyer argues, modular, domain-specific decision-making is characterised by distinct sensory inputs (as would be expected from evolved responses to the distinct pressures presented by domains as diverse as foraging, mating, tool-making and social communication).

Indeed, empirical research supports what Lawrence Barsalou et al. (2003; see also Barsalou 1999) describe as ‘perceptual symbol systems’ based on re-enactment. That is, rather than being processed amodally, ‘modality-specific states are captured by adjacent memory systems’ (for example, on seeing a given stimulus, parts of the brain’s visual system are activated and these active features are stored in memory), meaning that subsequently, in the absence of the stimulus, it can still be represented visually in the mind (Barsalou et al. 2003: 85). Support for this comes from experiments in which respondents list features of an object, neutral participants presenting similar patterns to those prompted to rely on imagery; experiments finding that participants list properties of an object associated with a specific modality faster if they have previously verified another feature of the same modality (e.g. identifying ‘loud’ (hearing) for a blender having identified ‘rustling’ for leaves, as opposed to ‘tart’ (taste) for cranberries); and similar experiments in which participants identify, for example, ‘mane’ with ‘pony’ faster if they have previously identified it with ‘horse’ than with ‘lion’; further evidence comes from studies of language comprehension and bodily states (ibid.: 86). As Barsalou et al. argue, all of this suggests that rather than retrieving amodal concepts, conceptual knowledge relies on the storage of modality-specific properties. This would be expected from the modular understanding of the mind, but presents a view quite different from that implicit in deep ontology, which relies rather on perception and identification being guided, on a fundamental level (which would, for the approach to be validated, necessarily encompass intuitive concepts), by amodal conceptual structures based on abstract properties of beings.

Of course, this is not to say that identification in this sense is not influenced by more general principles. Likewise, it does not deny that intuitive categories can be highly specific – evidence from comparative cognition, for example, suggests that baboon (*Papio hamadryas*) social cognition relies on intuitive categorisation of specific matrilineages (Seyfarth and Cheney 2015). The cognitive evidence does suggest, though, that such categories and principles rely on modality-specific retrieval cues, and in the modular view that those principles themselves will typically be domain-specific¹¹ – even if they can be reflectively represented as reliant on overarching principles. Within social anthropology, Rita Astuti’s (2001, 2007) research among the Vezo of Madagascar provides an illustrative example. Among the Vezo, an explicit discourse exists that argues that a child’s physical appearance is not the product of procreation but of particular social interactions and emotional attitudes to others of the pregnant mother (2007: 175). This is precisely the kind of ethnographic evidence which inspires claims of deep ontology, in this case concerning the relationship between the mental and the physical. However, when Astuti invited her Vezo

interlocutors to participate in the adoption task, she elicited quite different convictions. The adoption task (ibid.: 176 ff.) involves presenting a story of a child born to one set of parents and then raised by another, one of each set of parents being attributed a certain (contrasting) property; the properties are either mental or physical. The participant is then asked which parent (biological or adoptive) the child will resemble when adult. Adults presented with this task, in spite of explicit kinship discourse, tended strongly to distinguish between the transmission of mental and physical traits, identifying physical resemblances as coming from biological parents and mental traits from adoptive; in Astuti's terms, 'they draw the ontological distinction between "facts of biology" and "facts of sociality"'.¹²

As such, there is good evidence to suggest that concept formation, concept retrieval and the reflective consideration and elaboration of concepts all occur in ways quite different from those presupposed by the deep ontology model. Dual process theory, combined with an understanding of concepts as modal, suggests a far more dynamic picture in which contextual cues provoke associative characterisations, which may then be subject to varying degrees of reflection. Indeed, none of this evidence suggests a unified mode of identification guiding reflection across the board either, let alone perception and intuition – even if, as will be discussed, under certain circumstances individuals (or observing anthropologists) will attempt to reflectively construct coherent accounts on the basis of such unitary principles. That is, evidence from cognition, including that assessed and applied in ethnographic contexts, strongly suggests that deep ontology cannot exist. This does not necessarily mean, however, that individuals do not make ontological assumptions. In light of this, let us return to Cancan and his fish tank.

Can Fish Tanks Tell Us Anything about Ontology?

Cancan, while notable for his enthusiasm, was engaged in a level of fengshui practice that is very widespread, and is similar to many clients' experiences with Eight Trigrams prediction. Laypeople frequently engage in these practices, seeking guidance from professional experts, and have an idea that what they are doing will help maximise their fortune, even if they are not necessarily familiar with the underlying principles. In this sense, lay practice is analogous to, say, the pursuit of a healthy lifestyle and consultation of medical professionals. On the one hand, expert knowledge is sought to pursue certain practices that will help engender a good life; on the other, the practices themselves and the logic behind them may be understood in very different terms by expert and client, despite the invocation of some common concepts. This presents a significant problem for the anthropologist seeking ontological assumptions that might underlie general patterns of thought and practice within a particular group.

What can be said about Cancan's ontological assumptions based on this account, and at what level is such a question relevant? Cancan engaged in a practice with the explicit aim of encouraging good fortune via the positioning of objects and animals. He voiced a belief that arranging the fish and objects in a certain spatial configuration would foster certain affective states (comfort, a mystical feeling) when he occupied that space. He also paid some attention to the meaning behind those objects as presented to him by specialists (the store owner, articles and books he pointed out in his office, Daoist friends he mentioned). He did not explicitly discuss his own ontological perspective, that is, his beliefs about being in the cosmos, according to which these practices would make sense. Indeed, despite his focus on practical benefits he did not seem to be closely engaged with the cosmological theory of fengshui at all; even though he was in fact in possession of a hefty tome of related Daoist scriptures given to him by a friend, he had not read it and eagerly passed it on to me in the hope that it would see greater use.

Some of these observations can be generalised to encounters I had with others who kept fish tanks in their offices or business premises. A friend in Hangzhou who owned a teahouse, for example, had recently opened a new restaurant when I returned in August 2015, and installed two fish tanks at the entrance, one filled with goldfish and

the other with 'wealth fish'. Over the course of my return visit, the fish grew progressively sicker and fewer in number, yet this appeared to be of little consequence to my friend or the assistant manager apparently tasked with looking after them. One of the waitresses did express some concern for the fish, apparently motivated by their welfare rather than the potential significance for the restaurant's fortune, but by the time I left, nothing had been done. No one raised any concerns about the potential effects of the fish deaths on the restaurant's ability to make money. This necessarily raises the question of the extent to which cosmological practice, in this context, actually reflects assumptions about how the world really operates, and the degree to which these influence behaviour. Just as it would be premature to suppose that fengshui fish reflect an analogist deep ontology, it would likewise be unjustified here to suppose that the neglect of fish betrays an alternative comprehensive understanding of the world in which fish do not, as a rule, have fortune-related effects. Such would be to entertain the same assumption of an improbable degree of coherence and systematicity underlying apprehension of, and behaviour in, the world. Rather, it would be safer to suppose that different motivations arise, and are explicitly cited, for such practices dependent on context – and that these present no need to invoke any deeper ontological commitment on the part of practitioners than an intuitive recognition that the fish and their surroundings exist in the first place, alongside basic intuitions about how they might behave (they do not need to be placed into some wider taxonomic framework).

Unlike the restaurant owner, another friend, the owner of a heating company, took considerable pride in showing me the large (and very expensive) arowana he had installed in his office's lobby, in an appropriately large tank. Likewise, a friend of the teahouse owner, who invited a group of us to his office in the city outskirts to play music, spoke similarly about his huge office aquarium full of healthy wealth fish, which he proudly explained were difficult to care for well. As such, where fish are explicitly associated with abundance or positioned such that this intention is clear, some business owners (male in the above cases) appear to be motivated in some instances by fashion or reputation (in other instances, such as that of a woman who owned a café with a tank, this seemed to be out of hobby or aesthetic interest rather than fengshui homophony). Elaboration of why fish are kept in this way rarely went beyond referencing the homophony of fish and abundance, or in cases such as Cancan's, offering elaboration of some fengshui principles, other reasons given including affective or aesthetic benefits. The fact that in certain cases the fish themselves may be neglected was of little concern. Cancan took the step of using medicine to help his sick fish, but apparently had not taken the steps of finding out how to maintain them adequately in the first place or, perhaps, had ignored or forgotten such advice. This attitude to neglect suggests that in such cases, the fish themselves are not always seen as especially valuable, and also that while there is a voiced link between fish and abundance, the potential impact of fish death on that abundance is of little if any concern. That is to say, behaviour in these cases does not suggest a strong belief that the cosmos operates in such a way that placing a fish tank in one's lobby has an instrumental effect on encouraging abundance, even if it might promote a comfortable or spiritual atmosphere or provide a conversation piece. Choice of fish kept seems partly influenced by concerns with social status, and costs and dedication likely also play a role. In short, while there is an explicit association of fish with fortune in certain contexts, ethnographic observation and conversation do not in these cases allow us to confirm much about the role of explicit ontological assumptions concerning fortune in motivation.

Inevitably, all individuals intuitively assume that certain types of thing exist in the world and that their behaviour can be predicted based on the kinds of thing that they are – and reflection by extension involves meta-representing the same or similar assumptions. Of course, I have only presented a very brief episode of Cancan's life, and he may well make explicit ontological claims at other times. What he and others do in linking fish and fortune is a reflective process, even if it is not accompanied by an explicit ontological account. Could it be that on the level of reflection, if not intuition, it nonetheless evinces an analogist mode of identification? That is, can 'deep ontology' be qualified as shallower, pertaining only to the level of reflection?

While the analogist account appears interpretively plausible for amateur fengshui, in that it does involve the linkage of apparently unrelated phenomena via correlative devices such as homophony and, for the more cosmologically adventurous, the Five Phases of qi and yin and yang, we cannot necessarily extend the same basic logic to other domains of Cancan's life. It seems unlikely, for example, that his motivation for running a cosmetic

company focused on biologically based ingredients integrates smoothly into the same ‘integrating schema’. At the same time, he operates not in the ideal-type analogist polity of an imperial Chinese state and Confucian kin-relations characterised by a similar focus on harmonising discrete elements of the cosmos, but in a technologically advanced, industrialised city as part of a nuclear family with a single child, in a state that has undergone several modernist revolutions. That said, Descola does allow for the possibility of different modes existing alongside one another, discussing the persistence of analogist thinking into the context of modern ‘naturalism’ in the West. In Cancan’s case, while his fengshui aquarium might appear to be stocked according to analogist principles, the fish were medicated using an aquarium treatment and kept alive using a filtration system that do not fit obviously into an analogist framework. That is, other elements of fishkeeping are necessarily combined with apparently analogist principles – and are indeed necessary to protect one’s aquatic investment. This is not quite the same as, to use one of Descola’s examples, a naturalist modern European briefly indulging in some cheeky premodern analogism by reading their horoscope – it is not simply an exercise of imagination or drawing mentally on different ontological principles, but involves physical effects and processes the understanding and operation of which do not conform neatly to any one mode of identification in the first place, and which certainly do not make sense from an analogist starting point, even if they could be subject to post-hoc rationalisation. That is, any argument about the coexistence of modes of identification undermines the notion of an integrating schema; as it can be shown that an individual’s activities do not all fit into such a schema, either an individual possesses myriad schemas (which comes close to a modular view, albeit retaining the false assumption of ontological guiding principles), or integration into a single schema is necessarily an exercise in rationalisation and thus cannot be causally ‘upstream’ of conscious thought and action, to use Descola’s phrasing.

Homophony raises a further issue, in that it is ubiquitous in Chinese society, and not limited to the example of fish and abundance. For example, for the lunar new year the character fu, for fortune, is displayed prominently upside down – because ‘fortune upside down’ (fu daole) is a homophone for ‘fortune has arrived’ (fu daole) – and at least in contemporary society, this does not directly relate to one’s broader ontological commitments, reflective or otherwise. In fact, the ubiquity of such associations, particularly in a socio-economic and political context so different from that in which they originated, might also be explicable simply in terms of copying existing customs, proximately motivated by ethical or aesthetic attachment, familiarity of habit, respect for tradition or personal proclivity. Homophony itself is a property of Mandarin, which has a very high number of homophones, but not all are used in this way. There is no obvious reason why such customs require an underlying integrating schema in the form of a mode of identification, or indeed any indication that they represent relics of a previous deep ontology (as opposed to specific ideas and practices). In fact, the social visibility and salience of homophony and fengshui and, indeed, burning incense at temples or visiting diviners are frequently described by practitioners as practices one engages in not for reasons of definite conviction but simply because they are socially salient – so even the reflective claims typically used to justify deep ontology in this case themselves deny it. People will give explanations along the lines of, ‘I need to move house, and I’ll need to arrange my furniture. Given that there’s this way of doing so that people engage in a lot, based on fengshui, I might as well use that as a guide’. While it is true that social pressure might exist to follow such practices, and indeed that the occurrence of that pressure and the practices themselves might correlate with certain forms of social organisation, means of production and so on (such that fengshui-like activities would not be expected, say, in Amazonia), this again does not constitute evidence of, or necessitate the existence of, deep ontology.¹³

Ontological Levels

All of this is not to throw out the ontological fish with the dirty tank water, however. Rather, it means that as regards questions of ontology we need to be mindful of what we can feasibly conclude from ethnographic observations. While on the subject of the fengshui fish tank we are concerned wholly with reflection, we cannot simply ignore the role of intuitive ontological assumptions. As Boyer points out, the ‘ontologies’ discussed by scholars such as Descola (to whom I would add, for example, G.E.R. Lloyd (2014a)), rather than describing intuitions, ‘denote a reflective, explicit understanding of the kinds of things the world is made of’, relying on information either elicited from people directly or from observations of people engaged in tasks that are

themselves subject to explicit reflection (Boyer 2010: 381).¹⁴ These reflective ontological assumptions may be contrasted with ‘intuitive ontology’ (Boyer 1998, 2010; Boyer and Barrett 2015), referring to intuitive forms of inference apparently based on broad domains such as Person, Animal, Plant or Artefact (Boyer 1998: 878), as discussed above (notably, on this level, something like a fish tank presents various distinct categories and corresponding intuitive expectations). Intuitive ontology operates on a very basic level, and is often recognisable only when its expectations are violated; Boyer and Barrett (2015: 96–97) present the instructive example of faces, which are intuitively recognised and processed as a particular domain of phenomena based on configuration of elements, despite neither being subject to reflection or corresponding to a real natural category (our intuitive ontological category of faces is easily fooled by objects or visual elements arranged into a face-like pattern). As such, intuitive ontology must not be taken to mean simply anything not subject to explicit theorisation; an apparently analogist application of fengshui, for example, may not be subjected to extended metaphysical speculation by many of its adherents (though it is by some), but this does not make it intuitive. It remains thoroughly reflective in that it relies on conscious consideration and judgement of animals, objects, humans and other phenomena, even if these are not explicitly rationalised, as well as groupings of these entities in combinations that violate intuitive categories (see the examples of correlative cosmology in Chapter 4).

As Boyer (1998) argues, vast domains of acquired cultural representations are ‘counter-intuitive’ – in the strict sense that they violate intuitive ontological expectations. This is true, for example, of religious representations, cartoons and scientific theories, and the key concepts, theories and categories of Chinese correlative cosmology. Crucially, such representations do not rely solely on counter-intuitive beliefs but are in practice combined with intuitive beliefs, or understood against a counter-intuitive background.¹⁵ For example, a diviner can hold the counter-intuitive belief that human affective responses are expressions of qi flow in the same manner as any observable physical process, yet will still make inferences about the behaviour of other people based on intuitive expectations of how intentional agents differ from inanimate objects. Counter-intuitive representations that, according to Boyer’s criteria, ‘(i) invariably use external material representations of concepts, (ii) generally appear in literate groups, and (iii) very often require long and sustained training’ – such as ‘explicit conceptions of “nature” and the cosmos’ – are constrained by intuitive ontology, and rather than replacing intuitive expectations ‘provide support for their meta-representation’ (1998: 882).

Thus, ‘ontology’ as discussed by Descola and anthropologists of ontology more generally, and as seen through the example of Cancan’s case, would need to operate on a reflective level. However, a further distinction needs to be made between two levels of reflective ontology. That is, Cancan’s fengshui practices necessitate reflection on, for example, the kinds of things that do or do not promote good fortune. These are reflections on things that exist, and as such involve ontological assumptions that go beyond those of intuitive ontology, which they meta-represent – for example by combining different objects, fish and plants to promote fortune. In Cancan’s case they went beyond invoking homophony to touch on some more systematic fengshui principles, considerably stretching the basic bricolage principle of ‘going together’. His combination of various species of fish relied on further associations – the notion that the black oscar wards off evil derives from the associations of its colour, for example. Unlike homophony, in this case there is no obvious ‘going together’ of a black oscar and warding against evil; rather, the relationship, when subject to reflection, appeals to prior associations between colours and shapes and phenomena that have been elaborated and standardised as part of fengshui practice, and which Cancan had made some effort to learn about even if only through the advice of specialists. However, he appeared to consider these associations in a similar way to homophony – and while he explained that although homophony was important in the role of the fish tank, the tank itself was also important as it is of the Water Phase of qi, which corresponds with wealth, he made no mention of any broader cosmological ideas. Cancan seemed to confine such consideration to his personal engagements with fengshui as he understood it. His practices might suggest an implicit analogism to an observer looking for coherence, but what they reveal can hardly be taken as solid evidence of a single coherent mode of identification, certainly not one that extends beyond the sphere of the practices described. From such observations we can conclude that individuals make or mobilise certain reflective ontological assumptions in certain contexts, but not that these are necessarily guided by a set of reflectively represented abstract principles, and certainly not that they are intuitive.

There remains quite a difference between these occasionally mobilised assumptions, which are made alongside many others that imply different ontological conditions (such as those regarding the maintenance of Cancan's fish tank), and those of a specialist in the correlative cosmology of fengshui and Eight Trigrams prediction. Insofar as members of the former group make reflective ontological assumptions in the manner described above, they do not generally formulate these in terms of a comprehensive theoretical model of how reality itself is constituted and functions on a regular basis in the manner of cosmological experts (though they will formulate systematic models for specific domains in which they have expertise). Nonetheless, they may identify a particular food or medicine, say, as 'heating' or 'cooling', thereby betraying an assumption that there exist 'heating' and 'cooling' things. In the same society, however, a cosmological specialist, whose day-to-day existence involves regular engagement with such ideas, is likely to have considerably greater awareness of the entirety of what, in a particular social and cultural context, is supposed to exist, and to articulate this in terms of a systematic, coherent set of ontological principles.

We can thus distinguish between reflective ontological assumptions and systematic (reflective) ontology. The former refers to the unarticulated ontological conditions presumed by a given reflective belief or action (which meta-represents intuitions), and the latter to fully self-aware attempts on the part of an actor to integrate reflective beliefs into a comprehensive account of reality. Both involve counter-intuitive representations, the latter especially so given that it involves integrating disparate intuitive categories into a coherent whole. Neither reflective ontological assumptions nor systematic ontology can serve as a basis from which an observer can access people's intuitive ontological categories. However, with attendant qualifications, systematic ontologies can be described comparatively using taxonomies of the kind employed by Scott and Descola, such as mono- and poly-ontology, analogism and so on, while abandoning claims of 'deep' ontology contradicted by the evidence (a point elaborated on in the next chapter). At the same time, reflective ontological assumptions and systematic ontologies are not to be considered mutually exclusive within groups or within the lives of individuals. For example, during prediction an Eight Trigrams diviner draws extensively on a highly counter-intuitive systematic ontology, but in the course of other activities will make judgements that mobilise reflective ontological assumptions at variance with this and, indeed, with other such assumptions in different contexts. However, if they take a moment to consider the ultimate reasons for such actions, they will likely reframe them retrospectively in terms of the same systematic ontology. Systematic ontology thus involves the re-representation of certain reflective ontological assumptions, themselves relying on intuitive ontological categories – all of which are properly considered dynamic products of individual life history. The final section of this chapter returns to the ethnography to provide an illustration of how systematic ontology is described in practice by a cosmological expert. Unlike Cancan, Ma Jianglong presents an explanation of the fengshui aquarium that rests on explicit understandings of the nature of reality as a whole, including ontological claims and extensive cosmological explanation. Where Cancan made certain reflective ontological assumptions that were highly context-specific, Ma presents a coherent, systematic theory of the cosmos.

The Ontological Aquarium

A couple of weeks after I visited Cancan, Ma Jianglong invited me for tea at his apartment. During a long, in-depth conversation about how he had organised his apartment along fengshui principles, I mentioned Cancan's fish tank, commenting that it appeared rather unusual compared to most others I had seen in offices. Ma's attitude towards the capacity of fish to bring one good fortune was somewhat more sober than Cancan's. Filling a fish tank with wealth fish, or indeed planting a 'wealth tree' (facai shu) or using other trinkets in the manner Cancan enjoyed, may well be part of encouraging good fortune, as well as serving psychologically as a 'reminder' (tixing), but one cannot simply set up a tank of wealth fish, sit back and wait for the money to pour in. Homophony, meanwhile, in Ma's view was entirely irrelevant. Ma presented a systematic ontological basis for the keeping of a fengshui fish tank, which went far beyond any explanation I obtained from Cancan.

Ma Jianglong told me about the particular kind of ‘fengshui aquarium’ (fengshui yugang) Cancan was trying to achieve, though he had never set one up himself. He explained to me that one can set up such an aquarium based on the cosmogony described in the Appended Phrases I (Xici shang) commentary of the Yijing, using a stock of fish broadly similar to Cancan’s. The quotation from the text is as follows:

是故易有太極，是生兩儀，兩儀生四象，四象生八卦。八卦定吉凶，吉凶生大業。¹⁶

Therefore, in change there is the great [supreme] ultimate. This is what generates the two modes (the yin and yang). The two basic modes generate the four basic images, and the four basic images generate the eight trigrams. The eight trigrams determine good fortune and misfortune, and good fortune and misfortune generate the great enterprise. (Adapted from Lynn 1994: 65–66)

In creating a fengshui fish tank, each cosmogonic stage described here is correlated with a fish species, as follows: a gold dragonfish for the ‘Great Ultimate’ (太極 taiji), two red dragonfish for the Two Basic Modes (兩儀 liang yi, referring to yin and yang or the hexagrams Qian and Kun), four suckermouth catfish for the Four Basic Images (四象 si xiang, referring to lesser and greater yin and yang) and eight other fish for the Eight Trigrams (八卦 ba gua) of the Yijing, indicating particular cosmic states. These final eight may also be correlated with the Eight Characters (八字 bazi) of an individual’s birth, comprising the correlates of the sexagenary year, month, day and two-hour period. Such an aquarium, stocked in line with cosmogonic principles, produces an ‘ecosystem’ (shengtai xitong), in part because the four catfish supposedly consume the waste of the other fish, but also because it constitutes a ‘small universe’ (xiao yuzhou) based on the same principles. In this sense, the set-up of the Yijing fish tank is analogical. The gold dragonfish, for example, is not the Great Ultimate, but is here explicitly taken to correspond with it (it is, however, causally related to it, as explained below and in Chapter 2). Likewise, the two red dragonfish are not yin and yang qua cosmic principle, though they may exist with one another in a relationship determined by that principle.

Unlike for Cancan, for Ma this kind of fish tank must explicitly be made sense of as part of a systematic ontology. This is best seen in terms of the causal relations by which it is supposed to work. For Ma Jianglong, like other Eight Trigrams diviners, a central concern is the concept of a qi-field (qichang). This refers to the spatiotemporal configuration of qi as manifest in a particular entity or situation. Cancan’s description of his own aquarium, and indeed the passing references to homophony common among non-specialists, make no reference to this concept (though people may have a vague idea of its meaning if prompted). For Ma, however, on a reflective level the qi-field of the aquarium (or indeed anything else) is the product of the very real types of qi configured within it, and the Phases to which they belong; Cancan only hinted at this when he mentioned the role of water in bringing wealth, but did not go further.

In Ma’s conception, the qi-field of the aquarium necessarily causally interacts with the qi flowing around it through surrounding qi-fields. Therefore, given various relationships of production and conquest between Phases of qi, placement of the tank is very important – and it may not be suitable for all people. Ma explained that the suitability of a fish tank for a person depends on the Phase governing their fate. An individual’s fate is determined by the particular configuration of the cosmos at their birth, and this subsequently influences their individual qi-field as it transforms over time. For someone with a fate governed by Wood, a fish tank is a very good idea, because the Water Phase ‘produces’ the Wood Phase and the qi-field of the person concerned will thus benefit directly from the Water qi of the fish tank interacting with it.¹⁷ Conversely, a fish tank would have a detrimental effect on someone with a Fire-governed fate, owing to the destructive effects the Water qi would have on their qi-field. Ma thus articulates fengshui in terms of a direct causal relationship with real-world effects based on the interactions between different forms of universal qi.

To characterise this perspective it is useful to borrow from evolutionary biology a distinction between two kinds of similarity: analogy and homology (see e.g. Atran 2004: 25). Analogy here refers to resemblance between two unrelated lineages driven by functional convergence (such as a bird's and a butterfly's wings, unrelated and developing by distinct ontogenetic processes, but functionally similar). Homology, in contrast, refers to characteristics derived from a common original trait, such as the wings of two different bird species. Homology and analogy are defined with respect to a specific frame of reference. For example, embryologically, a bird's and bat's wings are homologues as they share a common ontogeny, by virtue of their evolutionary (or phylogenetic) homology as forelimbs (both birds and bats shared a common ancestor that had forelimbs). However, as wings they are analogous, because that common ancestor did not use its forelimbs as wings, and that function arose independently in each lineage.

The fish tank may serve as an analogue of the cosmos in its role as a conceptual device symbolising cosmogony, but its efficacy in promoting fortune is a result of its being a homologue – not a convergence of two ontologically distinct levels (fish tank and cosmos) based on a search for apparent similarity, as would be the case in Descola's 'analogism', but the inverse: the recurrence of particular configurations of the same common substance at scales differing in degree but not in kind. Homology in this sense provides a causal explanation for the recurrence of patterns. Consider, for example, the eight fish in Ma's hypothetical tank that are chosen based on the Eight Characters of the owner's birth. These denote aspects of the cosmic configuration of qi at the moment of birth, and the fish are chosen because they are manifestations of those same configurations and therefore have particular causal relations with the subject's qi-field. Likewise, for Ma, a round, red wealth fish is not significant because something about its roundness and redness 'goes together' with wealth (as was the case for the businessmen), but because its roundness and redness are the outward manifestation of qi configurations also present in, and promoting, situations of wealth gain; the presence of the fish thus directly helps to create a cosmic situation of wealth gain by altering its local qi-field.

There is thus a crucial difference between the ontological discontinuity of analogous pairs and the ontological continuity of homologous ones – a difference which in this case is closely related to developing a systematic ontology, which has the explicit aim of providing a coherent cosmological model that can be applied (reflectively) in practice. This model, relying on an assumption of ontological continuity across all things in the cosmos, is certainly 'counter-intuitive' – a reflective exercise in establishing a coherence that is not intuitively apprehensible, and which certainly cannot be taken to replace intuitive ontological categories.

Ma himself was very aware of the different levels on which these ideas operate. While introducing me to the logic by which he had laid out his apartment, one of the examples of good fengshui practice he gave me was the avoidance of placing mirrors directly at the foot of one's bed. This practice can of course be explained in terms of the systematic reflective ontology of qi, but one of the reasons Ma gave, which stood out for its unexpectedness, was that waking up in the middle of the night and seeing one's reflection staring back from the foot of the bed would be a nasty surprise (that is, he gave a reflective description of an intuitive process). Such an explanation might seem on the surface to be the explaining away of the sceptic – mirrors at the end of the bed aren't really bad, they just make you jump. But in Ma's explanation, and taking into account his general cosmology, the fact that the mirror could be frightening is in itself evidence of its negative effect on one's qi-field, which is after all affected by, and affects, one's psychological states. This perspective was also suggested by Ma's student's sharing of an article on the social media app WeChat that criticised what the author saw as a current trend for young men to wear clothing sporting printed images of fierce animals, such as tigers. Both the article and the accompanying comment suggested that the fierceness of the animals depicted would have a negative impact on the wearer's fengshui, and implied that this impact would manifest in the form of changes in mood reflecting the perceived characteristics of the animals depicted.

Conclusions

These final examples help illustrate how the three cognitive levels of ontology can be brought together (summarised in Table 1.1 below). Ma and his student describe intuitive responses to stimuli which are then reflectively incorporated into a systematic ontology based on qi, which can also be seen as readily giving rise to a reflective representation in terms of misfortune. If we consider the example of a fengshui fish tank, on the level of intuitive ontological categories various perceptions are relevant. The tank provokes intuitive expectations based on its inanimate properties, and the fish as animals or as intentional agents (when feeding, for example). At the same time, these very basic and likely universal aspects of intuitive ontology will be accompanied by learned intuitive expectations. This is probably the case for the immediate, non-reflective association of ‘fish’ with specific commonly encountered species, for example.

However, as soon as such associations are subject to conscious deliberation, we are dealing with the realm of reflective ontology. Reflection on the fish tank implies a conception of its existence as a certain kind of thing (or combination of things) – in this case, one which is linked to good fortune. Together with other things associated with good or bad fortune, it will be understood by the individual concerned to a greater or lesser degree in relation to a correlative system. However, exactly to what degree it is understood as part of a wider system will vary between individuals. It should not be assumed that practices linked to such correlative systems necessarily indicate a unified, coherent orientation. A system of such practices and voiced concerns might imply a certain orientation, but even if this implied ontology is a useful taxonomic or interpretive device for anthropologists, it is not necessarily shared by the people concerned. Indeed, they will undoubtedly make a wide range of conflicting reflective ontological assumptions in different domains of life, and depending on their own interests an anthropologist could develop a range of plausible implicit frameworks. The cases of Cancan and Ma Jianglong indicate, for example, that at least if we do not account for different degrees of systematic reflection, a common practice can be interpreted in terms of very different, and contradictory, fundamental assumptions about reality.

Finally, even when discussing systematic ontology, which involves individuals developing explicit, totalising accounts of reality and endeavouring to make them coherent, we cannot assume that such ontologies provide a guide to all practices and beliefs in which those individuals engage. An expert like Ma Jianglong is concerned on a day-to-day basis with how everyday events may be explained in terms of qi-based ontology, but this does not mean that in practice he invariably apprehends or comprehends things in these terms. Indeed, his own description of his behaviour allows for the fact that on an intuitive level, the world is apprehended differently, and he renders this coherent through the meta-representation of his intuitive behaviour as the product of counter-intuitive processes of qi flow.

Table 1.1 Cognition and ontology in fengshui fishkeeping. Table by author.

Level of Individual Ontology	Relevant Practices
Intuitive ontological categories	Spontaneous expectations about fish characteristics
Reflective ontological assumptions	Articulation of link between fish and abundance; keeping fish for good fortune;
Systematic ontology	Explaining a causal link between fish and fortune in terms of a comprehensive a

Having established a framework for understanding ontology in cognitive terms, we are now in a position to examine the content of Eight Trigrams cosmology in detail, in terms of how it is reflectively considered in order to establish a coherent ontological account. The next chapter therefore focuses on the role of homology in how diviners make sense of the conceptual content of correlative cosmology as a basis for their methods.

Notes

1. Similarly, during the lunar New Year, paper cuttings or images of fish may be pasted on walls and windows, to symbolise the wish 'to have abundance year after year' (niannian you yu).
2. Fish and aquaria are typically sold in large 'flower and bird' markets (hua niao shichang). Hangzhou 'flower and bird markets' have large fish sections, in which four general types of fish shop may be discerned: general pet stalls selling very cheap goldfish alongside mice, turtles and other animals, targeting impulse buyers and parents with children; general fish shops selling fairly cheap fish of various species, catering to pet owners and those after a cheap fengshui solution; well-kept tropical fish stalls, catering to dedicated hobbyist fishkeepers (with ichthyological rather than cosmological concerns); and large, professional fengshui fish shops, catering to customers who take their fengshui (and/or personal or company prestige) very seriously.
3. Note that there is nothing particularly special about this example other than its capacity to illustrate the following argument in terms of correlative cosmology; any ethnographically documented practice involving cosmology could be subject to similar analysis. The ethnography is presented accordingly, and is not intended to provide a comprehensive or authoritative account of fengshui fishkeeping practices in general.
4. Notably, this perspective differs from that of Lloyd, who has engaged closely with the work of Descola and Eduardo Viveiros de Castro (2014a, 2014b). He appears to take ontology very much as an explicit practice, and emphasises the problems with attributing a common ontological framework to all members of a society, focusing instead on the 'proliferation of ontologies' (2014a: 67) characterising ancient Greek and Chinese intellectual thought.
5. As opposed to simply drawing 'ontological' distinctions between domains – see below.
6. This parallels some of the more extreme inferences sinologists have drawn from early Chinese texts, as discussed in the Introduction and Chapter 4.
7. To be clear, this comparative distinction between four modes has significant analytic potential when applied to explicit ontological conceptions rather than 'deep' ones, as discussed in the next chapter; the same is true for Scott's mono- and poly-ontology. My intention here is not to dismiss Descola's overall comparative project, which is admirable and represents the kind of work that, in my view, anthropologists should be doing much more of. Rather, the aim is to critique an important underlying assumption and qualify the level of social phenomena to which it refers.

8. This mirrors the dual process distinction, though Descola does not refer to this explicitly and, as will be discussed, his identification of non-reflective cognitive processes is largely at odds with it.

9. Indeed, this resembles the way in which social anthropologists tend to have approached cultural transmission more generally. While, for example, semiotics, habitus or ‘the structure of the conjuncture’ (Sahlins 1987) might at first glance appear to constitute causal explanations, they in fact serve only to redescribe observations of continuity and change on a social level. They provide no account of the causal mechanisms by which cultural information is learned, processed and passed on by and to individuals.

10. Tamar Gendler’s (2008) idea of alief, as opposed to belief, covers similar ground. Put briefly, ‘alief’ refers to intuitive responses that may stand in contrast to, or violate, explicitly held beliefs by prompting mental associations or propensities for certain actions; for example, one can walk across a glass bridge holding the belief that it is safe to do so, while alieving that one is in a dangerous situation and likely to fall, a mental state prompted by contextual cues such as the lack of a visible barrier between one’s feet and the drop.

11. A case can be made, however, based on polysemy and pragmatics, that all concepts, categories and word meanings are constructed ad hoc in any given instance; rather than being default mental structures, concepts in this view are ‘dynamic pattern[s] of information that is made active in memory transiently, as needed, in response to internally generated or external cues’ (Casasanto and Lupyan 2015: 546).

12. The fact that they draw this distinction in this instance should not be interpreted as evidence of any general ontological orientation, however.

13. My thanks to Hans Steinmüller for offering this example.

14. While Lloyd (2014a: Chapter 1) does discuss both Descola’s ideas and cognitive-scientific and evolutionary-psychological approaches to cognition, he does not differentiate between levels of cognition on which different understandings might apply, presenting them rather as alternatives that might be reconciled on the same level, as ‘cultural’ understandings.

15. Counter-intuitiveness should not be confused with unfamiliarity, and vice versa (Boyer 1998: 881; 2010: 382).

16. Transliteration: Shi gu yi you taiji, shi sheng liang yi, liang yi sheng si xiang, si xiang sheng ba gua. Ba gua ding ji xiong, ji xiong sheng da ye.

17. This is heavily simplified in order to aid illustration. In fact, the fish tank contains a plethora of Phases of qi, owing to all the non-Water components – plants or rocks inside for example, or electrical components – all of which influence its qi-field.

■

DIVINING IN A HOMOLOGICAL COSMOS

The last chapter established the limits of ethnographic data as a guide to ‘deep ontology’, something which, given what is known about human cognition, should be regarded as an analytical fiction of limited use, as it cannot serve as an explanation for cultural variation in practices or beliefs. This is not to argue that different cultural forms, from kinship systems to political institutions to cosmology, do not frequently appear to demonstrate an apparent coherent logic. It is, though, to maintain 1) that this coherent logic is to be found only in reflective representations of these domains, and is frequently not manifest in actual behaviour, and 2) more importantly for the present argument, that this logic is not somehow present in the mind of each member of a collective, structuring their experience as a coherent whole. Coherence in this sense is a product of reflective cognition, and even then it requires tremendous effort and only occurs in certain contexts.

Beginning with this premise, this chapter builds on the description given of Ma Jianglong’s arguments at the end of the last chapter to characterise homologism as a distinct type of systematic ontology. In comparative perspective, frameworks such as Descola’s modes of identification can remain valuable provided they are considered as pertaining only to this level, rather than as ‘deep ontologies’. In that spirit, in this chapter I consider homologism as such a comparative category of systematic ontology, particularly in relation to analogism similarly understood. This is useful because in identifying conceptions of similarity and difference of interiority and physicality, Descola’s framework still centres on the defining principles of systematic ontologies as foundational elements of coherent cosmological

accounts. For example, as shown in this chapter, Eight Trigrams diviners rely on particular explicit conceptions of similarity and difference within and between beings in order to establish a coherent account of the world, and in turn to provide the logical basis for their methods of prediction. These explicit conceptions differ meaningfully from those found in the systematic ontologies of, say, Aboriginal Australian or medieval Catholic cosmological experts. Therefore, we can productively retain comparative categories like analogism or naturalism as descriptors of systematic ontologies, provided we abandon any notion that they pertain to intuitive cognition or guide how individuals apprehend the world.

Indeed, homologism's explicit ontological premise of monism leading to twin continuity of interiority and physicality is in fact counter-intuitive, in the strict cognitive sense of violating intuitive expectations, and as such, like other systematic ontologies, could not form the basis for intuitive understandings. Homologism serves here to provide an illustrative example of how coherent ontologies demonstrably run counter to intuitive ontology. If we consider the subjunctive coherence attributed to practices by some anthropologists – the study of culture as if there were deep ontology – we find that the crucial emphasis on ontological continuity made explicit in Eight Trigrams cosmology and divination disappears. In the absence of explicit ontological commitments (though even these would not indicate overall coherence), the behaviour of an individual like Cancan could be equally reasonably interpreted as resting on assumptions of either twin discontinuity or twin continuity. Indeed, while it is crucially important for diviners, homological ontology is not necessarily directly mobilised in the practice of specific divinatory consultations, and systematic ontological considerations need not be mentally represented at all by clients.

To illustrate the role played by systematic ontology, this chapter begins with an overview of the cosmology of Eight Trigrams divination, focusing in particular on the central concept of *qi*, and how this informs divinatory interpretation in practice. The second section considers several wider themes relevant to homological ontology: continuity of interiority and physicality,

cosmogony, and constant cosmic principles. These are then used to characterise homologism comparatively as a particular kind of systematic ontology.

The Cosmology of Eight Trigrams Prediction in Practice

Differences exist between the methods of Master Tao and Ma Jianglong, but both share a focus on deriving a hexagram as an index of the cosmos, which can be interpreted to establish the best course of action for a client. Neither diviner's methods rely primarily on the text of the Yijing itself (though Ma draws on this for broader epistemological theory). Instead, they depend on the integration of the Yijing's hexagrams with the correlative cosmology of qi, following the logic used by Ma Jianglong to explain the fengshui fish tank. Ma's divination methods, in particular his reliance on the imagery of the hexagrams, are discussed in more detail in the next chapter; for illustrative purposes here I focus on Master Tao's six lines method.

Cosmological Interpretation in Six Lines Prediction

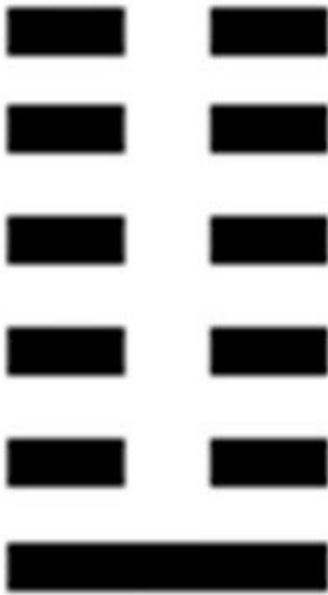
The cosmological principles drawn on in interpretation are common to both methods, along with fengshui and a wide range of other divination practices, as well as Chinese medicine, martial arts, calendrics and so on. To reiterate, the cosmos in its entirety is composed of qi, understood both as energy and substance, which flows and transforms according to universal, constant principles. Human affairs are thus understandable in terms of the qi flows that make up psychological and social propensities and behaviour (emotions, for example, are results of qi interactions). Cosmologically, qi is understood both in terms of space (as in the qi-fields discussed in the previous chapter) and time, the flow of time following the same correlative principles. The most important principles of qi flow for Eight Trigrams prediction are the Five Phases (metal, wood, water, fire and earth), operating according to

cycles of production and conquest, and yin and yang. The Yijing's hexagrams can be classified according to these Phases, and divinatory diagnoses made accordingly, as described below. Meanwhile, yin and yang are relational terms that respectively describe yielding and active properties; in the hexagrams, broken lines are yin and complete lines are yang. This is essential to the structure of the hexagrams, but plays a less important role than the Five Phases in divinatory interpretation. Also of key importance in diagnosis is the ganzhi system of ten Heavenly Stems (tiangan) and twelve Earthly Branches (dizhi). These are combined with each other to form a calendar based on sexagenary cycles – cycles of sixty years, months and days. Each stem or branch is correlated with one of the Five Phases, allowing more or less auspicious times to be identified for particular people for carrying out particular activities. This also forms the basis of the Eight Characters (bazi) system of horoscopy, which uses date of birth to understand the dominant Phases at various stages of a person's life. Particular schools of interpretation make use of various further sets of correlates, but all of these are ultimately understood in terms of yin and yang and the interactions between the Five Phases.

To illustrate how these apply to divination, let's take an example from Master Tao's work. In this case, a woman obtained a hexagram, Fu (復), associated with major change or 'overturning' (fan guolai), in Master Tao's words. This pertains to the overall meaning of the hexagram 'image' (xiang), which is emphasised more in Ma Jianglong's methods. However, in six lines prediction what are more important are the specific correlates of the six lines that make up the hexagram. These are shown for this hexagram in Figure 2.1. Recall from the Introduction that each line is derived by the combination of heads and tails shown on the three coins thrown by the client. In certain cases these indicate that one or more of the lines is 'moving' (dong), changing from yin to yang or vice versa. This is not shown in the following example, but results in two hexagrams requiring interpretation, indexing a situation changing through time.

The description here is simplified, intending to show the basic logic of interpretation.¹ In six lines prediction, the hexagrams are grouped into Eight Palaces (ba gong), each of which correlates with a Phase, in this case Earth. For each hexagram, each line has a fixed Earthly Branch; the Earthly Branches are themselves correlated with Phases. So, in Figure 2.1., we see that the first (bottommost, yang) line correlates with the Earthly Branch Zi, correlated with the Water Phase. This reveals an essential aspect of correlative cosmology, which is that the same principles operate at different scales of encompassment, from ‘palaces’ to hexagrams to lines. As the hexagram is an index of cosmic conditions from a specific vantage point (that of the client), at this level, Earth qi prevails. However, at lower scales, other Phases of qi become more relevant, indicated by the Phase of each line shown in Figure 2.1. Each line indexes certain kinds of relationship, grouped together under the headings in the leftmost column (categories known as yongshen). So, from the vantage point of this client at the time of consultation, while general conditions are influenced by Earth qi, relationships of the type ‘Sons and Grandsons’ are characterised by Metal qi, those of ‘Wives and Wealth’ by Water qi and so on. At the same time, two lines are highlighted in Figure 2.1. – the ‘generation line’ (shiyao; translation Nielsen 2003: 211) and ‘resonant line’ (yingyao), based on the hexagram palace – which index the client or ego and main subject of enquiry respectively.

An Annotated Prediction



Relationship	Earthly Branch	Line	Phase
Sons and Grandsons	<i>You</i> 酉		Metal
Wives and Wealth	<i>Hai</i> 亥		Water
Brothers	<i>Chou</i> 丑	Subject of enquiry	Earth
Brothers	<i>Chen</i> 辰		Earth
Officials and Ghosts	<i>Yin</i> 寅		Wood
Wives and Wealth	<i>Zi</i> 子	Ego	Water

Figure 2.1 Simplified annotation of the hexagram Fu. Image by author. Previously published in William Matthews. 2017b. ‘Ontology with Chinese Characteristics: Homology as a Mode of Identification’, HAU: Journal of Ethnographic Theory 7(1): 266. This work is licensed under the Creative Commons, © William Matthews.

The relationships grouped together by each yongshen category are considered homologous – that is, they all follow principles causally derived from a common configuration of qi. In six lines prediction, this is determined by the way in which the qi of each hexagram line interacts with that of the hexagram overall. For example, the first (bottom-most) line is Water, which is ‘conquered’ (ke) by the Earth qi of the hexagram; it thus

pertains to the relationship category 'Wives and Wealth' (qicai). Conversely, the Wood qi of the second line conquers Earth qi, indexing the relationship category 'Officials and Ghosts' (guangui). Meanwhile, Earth produces the Metal of line six, indexing 'Sons and Grandsons'; if the hexagram included Fire, which produces Earth, that line would index 'Father and Mother'. Thus the relationship between the scales of the hexagram Phase and the line Phase is reflected in the kinds of relationship each line indexes, following a broadly Confucian normative framework. So, 'Sons and Grandsons' indexes relationships homologous to parental care on the part of the client. 'Wives and Wealth' indicate a certain power or hierarchy in favour of the client, but with a complementary relationship (e.g. subject to authority, providing some sort of benefit, but also relied upon), while 'Officials and Ghosts' have authority over the client, potentially caring but also with capacity for coercion or harm (for women, husbands fall into this category). 'Brothers', caused by a common line and hexagram Phase, indexes relationships with those of equivalent status to the client, such as colleagues. Cosmologically, each of these kinds of relationship stems from the nature of the interaction between two kinds of qi – that prevailing in the overall situation and that indexed by the line. The latter comes to influence the nature of that kind of relationship in the specific situation indexed by the hexagram even as the life situation of the client is influenced by the Phase of the hexagram overall. That is, while certain kinds of qi interactions of conquest and production determine the indexed category of relationship, the specific Phase of qi correlated with each line determines the characteristics of such relationships in the particular situation indexed by the hexagram. So, if the interaction between the scale of a line's qi and that of the hexagram overall is one of 'conquest', then regardless of the actual Phases involved the line denotes 'Officials and Ghosts', but in different hexagrams that same kind of relationship will have characteristics determined by the specific qi Phase of the hexagram and the line (in Figure 2.1., that between Earth and Wood qi).

Further correlates are also taken into account in interpretation to add greater specificity. These include the 'Six Beasts' (liushou), which correlate with the hexagram lines in a fixed sequence the starting point of which (for line one, at the bottom) is determined by the Heavenly Stem of the sexagenary date on which the consultation is made. These are not always referred to in

consultation but add details of consequences or characteristics of certain kinds of relationships – such as their auspiciousness or inauspiciousness, the likelihood of disputes and so on. Interpretation may also involve considering a range of other relationships between kinds of qi, notably the Six Conflicts (liuchong) and Six Accordances (liuhe) between different Earthly Branches, which reveal potential conflicts and accordances between different kinds of relationships, including compatibility between individuals (as for marriage), helping to assess the overall auspiciousness of the hexagram.

In consultation, a client's situation is thus understood in terms of the underlying relationships between forms of qi. In the case of Figure 2.1., the main concern was the client's wealth,² as indexed by the generation line (with the yongshen 'Wives and Wealth'). The concern here related to the 'Brothers' (xiongdi) category of relationship; that is, others of equivalent status to the client, here understood as indicating 'financial competitors' (zhengcaide ren). Prospects were not ideal, as the client's 'wealth was not flourishing' (cai shi bu wangde), indicated by the fact that the Earth qi of the resonant line conquers the Water qi of the generation line. However, the two lines are in accordance based on the principle of Six Accordances (they have a mutually productive qi relationship), indicating that the client was taking a 'calm and decent' (pingjing shanliangde) attitude to the issue. Master Tao provided a forecast for the coming years based on the relationship between the qi Phases of the hexagram and those of the client's date of birth. Relatively auspicious and inauspicious times are forecast via the same principles; thus, as her fate was governed by Earth, 2016–18, Fire years, would be auspicious as Fire 'produces' (sheng) Earth, whereas 2019 would require attention to the various issues raised by the hexagram as a Wood year, which 'conquers' Earth. Such diagnoses can be refined further with reference to the Phase relationships between specific dates (years, months, days, hours) and specific lines of the hexagram.

The Influence of Qi-Based Systematic Ontology on Cognition in Divination

The explicit logic of interpretation in Eight Trigrams prediction thus relies very heavily on the concept of qi (this is also true for Ma Jianglong's methods) and its interactions through the various correlates, most importantly the Five Phases. The central emphasis on qi marks Eight Trigrams prediction out from other popular mantic practices, which, while drawing on the same cosmology and making use of the Five Phases, often also place particular emphasis on Heaven (tian) (Homola 2021), a concept playing no significant role in the interpretive practices of either Master Tao or Ma Jianglong despite figuring as part of their cosmological ideas.

A qi-based framework guides reflective reasoning on the part of the diviner during interpretation. This does not mean that every aspect of the hexagram is directly apprehended in terms of homological ontology, or indeed that questions or comments posed by clients are immediately perceived in those terms. Understanding the hexagram and further information provided by the client in terms of qi and the Five Phases requires conscious effort, particularly because qi is a cognitively counter-intuitive concept insofar as it violates intuitive classifications of phenomena, grouping together intuitively distinct classes into a single overarching category and contradicting intuitive dualism between mind and body.³ This does not mean, however, that intuition is not involved in divinatory interpretation. In Ma Jianglong's 'image'-focused method, intuition plays a role in providing meaningful associations with hexagrams. Six lines prediction is notable for the degree to which its correlative framework suppresses the role of intuitive associations (Matthews forthcoming a), given the huge variety of correlates involved and the fact that they are fixed and must be interpreted according to constant principles (such that at each stage a 'correct' interpretation exists and can be calculated based on the correlates of the lines). Nonetheless, a six lines diviner inevitably makes use of intuitive cognition during interpretation. This may include, for example, identifying which elements of the hexagram to focus on prior to being told about the client's specific questions (though these could also be selected reflectively), and does include rapid recall of correlates and their effects as a result of practice. The latter relies on internalised knowledge, such that sequences or correlates can be recalled

automatically without reflection on their semantic content; this does not require that the related abstract principles of Phase relationships, qi transformation and so on become intuitive. That is, intuitive recall is evidence not of deep ontology guiding perception but of memorisation of sets of terms which once recalled can be – but are not necessarily – subject to reflective consideration in cosmological or ontological terms.

If diviners as cosmological experts do not therefore reflectively represent the ontology of qi all the way through the process of divinatory interpretation, this is even more the case for non-experts, including many (but by no means all) clients. In fact, while the interpretive processes and historical development of Eight Trigrams prediction are obviously influenced by cosmology and its ontological basis, for clients it need not be considered in cosmological terms at all. In practice, given the cultural salience of the Yijing and key concepts such as qi, the Five Phases, and the Eight Trigrams, it is unlikely that a client will have no idea at all about the associated cosmology, though beliefs they hold about them will likely be semi-propositional (contingent and open to a range of interpretations) rather than fully understood (Sperber 1985: 35 ff., discussed further in Chapter 5). When clients do understand diagnoses in cosmological terms, this is similarly a product of reflection rather than a means by which they initially apprehend the information given by the diviner. Indeed, the comparative ethnographic record indicates that divination does not require any cosmological justification to be intuitively compelling – this is achieved by the ‘ostensive detachment’ of the diviner from the results of divination, as mentioned in the Introduction, which are arrived at via mechanisms over which they have no apparent influence (Boyer 2020), such as the fall of coins. Cosmological elaboration may make divination more persuasive on a reflective level where such cosmological ideas are widespread, or where they are readily compatible with hegemonic systems of knowledge, such as science in the case of the People’s Republic of China (Matthews 2021b). Clients I asked were typically reluctant to say they ‘believed in’ (xiangxin) Eight Trigrams prediction, though they would often describe it as ‘formidable’ (lihai) or ‘profound’ (shen’ao). As with many popular religious and mantic practices in China, divination provides one of various ways of

solving particular life problems, and this is often of greater importance to clients than its cosmological validity.

Thus, the systematic ontology of qi does not necessarily inform divinatory interpretation for clients, and when it becomes relevant, as in the interpretive process of diviners, it does so as part of reflective consideration of the hexagram. Even then, while cosmological terms are invoked, and the recalled properties and reflectively represented relationships between Phases, Earthly Branches and so on are employed, this need not involve their consideration by the diviner, in that moment, in ontological terms (the concept of qi itself need not enter into it, except by potential association with the other concepts being employed). Instead, qi ontology is of greater importance outside the context of actual divinatory consultation, as a systematic ontological foundation for divinatory epistemology that informs how diviners reflectively understand the world and knowledge of it in contexts when explicit cosmological questions are under direct consideration (such as teaching, discussion with other diviners, personal or professional research or conversations with anthropologists).

Therefore, though qi ontology may not be explicitly mentally represented as such during divinatory consultations, even by diviners, it still influences cognition both in terms of the persuasiveness it affords divination (dependent on the perspective of individuals involved) and the structure of the interpretive process. The latter is the product of the historical development of qi cosmology, discussed in more detail in Chapter 4. For the diviner, it has the effect of suppressing intuitive associations mentioned above by imposing constraints on which interpretations are valid. This process proceeds progressively with each further set of correlates taken into consideration – the more correlates considered, the more detail, and thus less room for interpretation, there is for the diagnosis (see Matthews forthcoming a, 2022 for detailed discussions of this). This framework follows directly from the explicit ontology of qi and its homological character. A cosmos composed of a single energy substance means that all phenomena are ontologically continuous, conceptually allowing an epistemology in

which resemblances between phenomena reveal underlying similarities, understood in terms of fixed principles of kinds of qi and their transformation. The claim of ontological continuity facilitates the claim of epistemology based on resemblance and derivation of general cosmic principles from such resemblances (described in Chapter 3), while continuity of these principles based on ontological continuity across scales (from individual to cosmos) allows precise diagnoses of the kinds of qi operating in a given situation and their effects. Ontological continuity thus allows epistemological coherence for Eight Trigrams prediction, and influences its method, even if it is not constantly mentally represented in the practice of that method.

Ontological Considerations: Continuity, Cosmogony and Constant Principles

Qi, the Soul and Ontological Continuity

In Ma Jianglong's words, 'Heaven, Earth, Humanity, and the Ten Thousand Things are of one body; therefore they mutually influence [one another]' (天地人萬物一體，所以相互影響 tian di ren wanwu yiti, suoyi xianghu yingxiang). Because qi determines physicality and interiority, the manipulation of objects has an effect on affective states as a result of qi interactions. Indeed, cosmologically speaking, Eight Trigrams prediction reveals the configuration of cosmic qi, facilitating the diagnosis and prediction of human behaviour.

The transformation of qi-fields is a concept that has influence beyond the immediate context of divinatory consultation. Master Tao, for example, told me he did not wish to stay in Hangzhou for more than five to seven more years, as by that point his qi-field would have changed, and so also his financial prospects as a diviner. Master Tao's student Xiaoping added that

one's qi-field is also affected by one's beliefs, as well as other actions such as going to temples, and that the state of a given person's qi-field is visible in how they behave, discernible in terms of a 'feeling' (ganjue) one gets from them. Similarly, regarding private consultations, Master Tao expressed some unease; in principle, the opposite party should have the opportunity to witness the prediction, and denial of that, based on a client's lack of openness, causes problems with the qi-field. Both physicality and interiority are reducible to qi, and are continuous across entities and with each other. The fundamental discontinuity of both physicalities and interiorities that Descola (2013) sees as the hallmark of analogism is entirely absent.

The continuity of physicality and interiority extends to diviners' attitudes towards the component parts of the person; this was a question I put directly to Master Tao, Ma Jianglong and Xiaoping, because it forms an important component of Descola's theory of analogism but is not readily apparent in Eight Trigrams practice. Descola characterises the analogist person as one inherently separable into component parts that are ontologically discontinuous – hence the apparent proclivity of analogist ontological systems for spirit possession and beliefs in multiple soul-like entities. Indeed, outside Eight Trigrams prediction, spirit possession is a common theme in Chinese society, particularly in rural areas (see e.g. Chau 2006; Feuchtwang 2004). Given the incredibility of a 'deep ontological' explanation, this has to be considered in terms of intuitive ontology, reflective ontological assumptions or systematic ontology. At the level of intuitive ontology there is strong cross-cultural evidence for mind–body dualism as a human universal, including in China, as a basic element of theory of mind (Astuti 2001; Slingerland 2018). This does not prevent the development of reflective theories that emphasise this to a greater or lesser degree, or add additional components (such as 'spirit'), nor counter-intuitive understandings such as those found in materialist conceptions in which the mind is understood in terms of physical processes. Such counter-intuitive conceptions, however, are unable to override the intuitive perception that minds and bodies are distinct (hence, as Slingerland points out, the cross-cultural ubiquity of conceptions of souls going on after the death of the body).

While analogist systematic ontologies in which parts of the person are understood explicitly as ontologically distinct doubtless exist, this claim cannot be sustained for traditions in which explicit theories are absent. In such cases, including many instances of spirit possession, participants certainly make reflective ontological assumptions about mind and body, and entities such as spirits or gods, but these are not necessarily couched in terms of a broader ontological account. Few such accounts are mentioned in the literature on spirit possession in China, but where they are, similar activities such as spirit writing are explained in terms of qi (Clart 2003). Indeed, the systematic ontologies of Eight Trigrams diviners demonstrate that a belief in the separability of body and soul, for example, is entirely compatible with the assumptions of continuous physicalities and interiorities characteristic of homologism.

Master Tao was amused by the question of the separability of body (shenti) and ‘soul’ (linghun). He told me in no uncertain terms that there is no ‘soul’, reiterating that he was an ‘atheist’ (wushenlunzhe) – like Ma Jianglong, but unlike Xiaoping, who told me that he rarely visits temples but describes himself as Buddhist. Master Tao added, however, that soul beliefs, along with attendant beliefs in spirit possession, do exist as part of Daoist religion. Moreover, he said that there is a ‘way of speaking’ (shuofa) in Eight Trigrams prediction that the person may continue in subsequent lives, but that in his understanding, this involves simply the continuation of a person’s qi-field after the loss of the corporeal body (routi). This is so insofar as a person’s ‘spirit’ (jingshen) may continue to influence others after death. He explained that this idea of ‘spirit’ is to be understood as something existing in the minds of others, in the form of memories of the deceased and their actions, not as a ‘soul’ in the sense of an ethereal counterpart to the body. After some discussion of these ideas, Master Tao said that ultimately these constitute things that ‘cannot be spoken of clearly’ (shuo buqingchu – see Chapter 3). Master Tao’s opinions on this matter represent an extreme case – he remains the only person involved with Eight Trigrams prediction I met who stated unequivocally that no ‘soul’ exists, and whose views of any afterlife do not allow for anything beyond continued existence of others’

memories and decomposed substance, a person's qi continuing to exist simply by virtue of its constant transformation.

The views of Xiaoping and Ma, in contrast, involved the existence of a separable 'soul', but one also composed, like the body, of qi – though in a non-solid state. From Ma's perspective, the qi-based 'soul' separates from the body when people dream (hence the very real feel of dreams – the 'soul' is in fact somewhere else) or experience phenomena such as extra-sensory perception. Ma also described qi as a form of 'energy' (nengliang), the continued existence of which after death is explicable in terms of the 'law of the conservation of energy' (nengliang shouheng lü), a direct borrowing from physics. This formed part of his description of the nature of the 'soul', properly called the yuanshen ('primordial spirit'). It is 'one thing' (yige dongxi) with two aspects, yin and yang, whose 'energy fields are not the same' (nengliangchang bu yiyang), the yin aspect being invisible and able to move at the speed of light as 'energy'. Thus, while Eight Trigrams diviners may posit the existence of a separable 'soul', it is nonetheless explicable in terms of the same common qi shared by the entire cosmos – no ontological distinction is drawn between the physicality and interiority of body and 'soul' (to take them as ontologically distinct entities would be similar to taking water as ontologically distinct from steam in chemistry, which would be to render the continuous transformation from one to the other inexplicable in terms of physical process alone).

As the systematic ontologies of diviners do not posit ontological distinction between physicality and interiority, it is worth considering their resemblance to 'materialist theories of consciousness', which Descola sees as proposing a concept of the person founded 'on physicality alone' (2013: 119). As he points out, such conceptions meet resistance at least in part because they contradict common experience (cognitively speaking, they are highly counter-intuitive for the same reasons that qi is) – but it ought to be remembered that a materialist conception of consciousness does not deny the subjective experience of interiority, it simply understands it as a physical process. The idea that no distinction exists between physicality and

interiority, as in Eight Trigrams cosmology, is equally counter-intuitive – even though it does not reduce one aspect to another in the same way. This demonstrates all the more the need for an analytical distinction between levels of ontology. A belief in no distinction between physicality and interiority, at least as regards humans, cannot be an intuitive belief; as Sperber remarks, it is similarly true of many scientific beliefs that they are well understood but remain beyond the remit of intuitive beliefs (1997: 77). A lack of this distinction between interiority and physicality is unlikely to be found as a reflective ontological assumption in the absence of systematic ontological consideration, because the basic intuition that physicality and interiority are separate is essential for all social practice, and reflections on this tend to build on intuitions or incorporate only minimally counter-intuitive ideas (Boyer 1994a; McCauley 2013). Even the most hard-line materialist cannot actually go about life without distinguishing between physicality and interiority. The same is true for Eight Trigrams diviners as for neuroscientists – such counter-intuitive ideas make sense only in the limited context of systematic explicit reflection on what exists.

Cosmogony and Comparisons with Physics

Systematic ontology typically relies on an explicitly formulated cosmogony, or some account of a lack of one (as in conceptions of an eternal cosmos). Cosmogony is important for Eight Trigrams diviners as it provides an ultimate account of the differentiation of qi into the myriad entities and phenomena that compose the cosmos. We have already seen Ma Jianglong's use of the cosmogony of the Appended Phrases I in explaining the logic of the fengshui fish tank – this same account was similarly drawn on by Xiaoping in his comparison with physics (Figure 2.2), and is one of various accounts of cosmic unity frequently repeated by diviners. Others include, for example, a famous line from the Daodejing, 'the Dao produces the one, the one produces the two, the two produce the three, the three produce the Ten Thousand Things' (道生一，一生二，二生三，三生萬物 *dao sheng yi, yi sheng er, er sheng san, san sheng wanwu*), and the aphorism, popular with Master Tao, that 'Heaven and Humanity are joined as one' (*tian ren he yi*). It

is noteworthy that all such references are succinct, but sufficient to account cosmogonically for the practically more important cosmic principles mobilised in activities such as prediction. Cosmogony is an essential element in justifying the principles of a ‘legislative’ cosmos governed by constant principles (Valeri 2014: 264) – they make sense only in light of the monism required by qi-based ontological unity. However, this is something that Descola overlooks in his account of analogism, and his characterisation of Chinese cosmology as one in which myriad ontological singularities are a starting point and must be mapped together (2013: 206–7) is quite at odds with the above conceptions of differentiation from a single origin (it does, however, apply to other examples he provides of systematic ontologies, such as the Great Chain of Being).

A cosmos in which energy substance differentiates from a single origin in a process of continuous transformation according to constant universal laws of change has obvious structural parallels with the cosmology of modern physics – a fact that has gone unnoticed neither by diviners nor some Western authors (Capra 1991). Figure 2.2. illustrates Xiaoping’s conception of the relationship between the cosmogony of the Yijing and that of modern physics. In the diagram, Xiaoping identifies structural similarities between the two cosmogonies. A one-to-one correspondence is identified between the constituent elements of each, resulting in a complete analogical mapping of one to the other (Gick and Holyoak 1983: 7). Xiaoping compared the Big Bang with the idea of ‘the Limitless’ (wuji; Nielsen 2003: 253), existing prior to, and bringing into being, the ‘Supreme Ultimate’ (taiji), encompassing yin and yang (as denoted by the taiji symbol). In turn, positive and negative principles arose (yang and yin), just as the Big Bang gave rise to positive and negative electrical states or charges. Yin and yang ‘continue[d] to transform’ (jixu bianhua) over time, branching out into a relational system; similarly, in physics, expressed for Xiaoping by the equation $E = mc^2$ (also used by Ma Jianglong to explain the workings of the yuanshen soul described above) energy and mass are mutually convertible, which he understood in terms of the dynamic interaction between the static (jingzhi) and the moving (dong).

Moreover, Xiaoping drew direct comparisons between physical theories and various methods of divination, explaining that both play similar roles, with specific reference to Albert Einstein and Stephen Hawking. Both physical theories and ‘fate calculation’ (suanming) methods, in this view, constitute predictive systems based on cosmic principles, ultimately derived from the systematic observation of nature (as described in the Appended Phrases); as a student of six lines prediction, Xiaoping is familiar with this account of the derivation of the trigrams and hexagrams, despite not having read the original text of the Yijing himself. Such a conception makes these techniques, as understood here, quite different from what Patrick Curry (2004a: 106), in reference to astrology, describes as ‘metis’, concerned not with what will happen but what should be done. The idea of metis is intrinsically bound up with the idea of ‘enchantment’, relying on intuitive associations prompted by polyvalent divinatory results to generate new subjective meanings, quite unlike the constrained methods of six lines interpretation based on tightly defined correlates (Matthews forthcoming a). Similarly, the ‘randomness’ in divination with which Curry associates ‘metis’ is not seen as random by the Eight Trigrams diviner – throwing coins does not produce a random result from their point of view but depends on the current state of the cosmos. Unlike astrology as Curry (2004b) conceives it, Xiaoping’s exegesis renders the question of ‘what will happen’ well within the purview of six lines prediction, which thus bears more resemblance to the ‘scientific astrology’ Curry (2004a) criticises. This difference suggests a deeper one between analogist and homologist systematic ontologies; ‘metis’-based divination could conceivably be a product of a systematic ontology that either elevates Lévi-Straussian bricolage (1974) into an all-encompassing system, or does not consider divination in cosmological terms – a system incapable by its very nature of predicting ‘what will happen’, being based on imposed analogical similarity rather than intrinsic causal continuity.

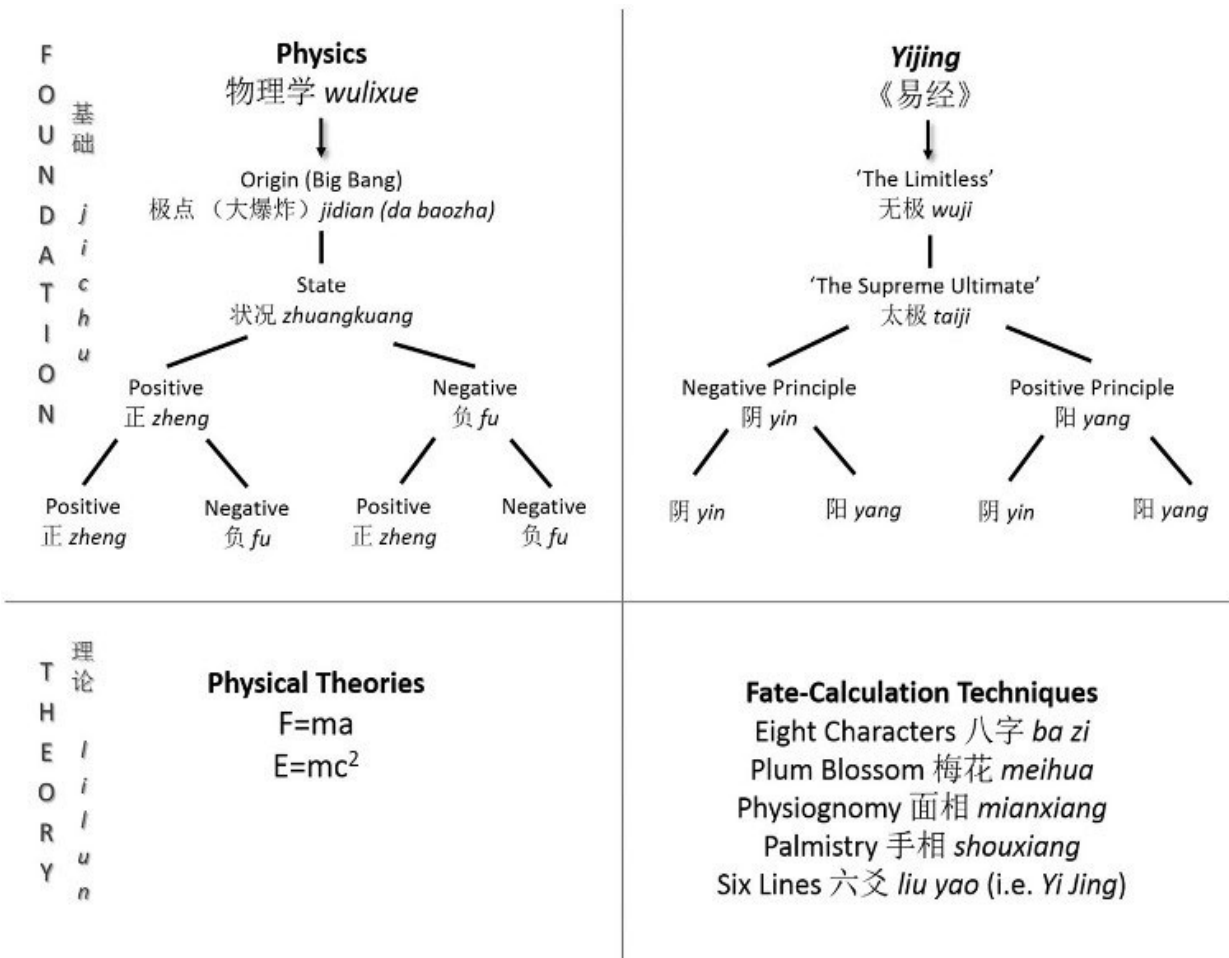


Figure 2.2 Cosmogony in physics and the Yijing. Adapted from the diagram drawn for me by Xiaoping. I have reproduced it as he drew it, but the parallel of ‘positive’ states in physics is with yang, and vice versa. Previously published in William Matthews. 2017b. ‘Ontology with Chinese Characteristics: Homology as a Mode of Identification’, HAU: Journal of Ethnographic Theory 7(1): 266. This work is licensed under the Creative Commons, © William Matthews.

Returning to Figure 2.2., Xiaoping explained that ‘different methods resolve different problems’ (butongde fangfa jiejie butongde wenti), the physical theories dealing with the physical (wuli), and the divination methods dealing with the ‘psychological’ (xinli) and ‘relations between people’ (ren yu rende

guanxi). These ‘definitely do not conflict’ (yiding meiyou chongtu), but rather refer to different scales of phenomena; he added that they are mutually convertible in the manner of binary and decimal numeration – that is, the two systems can be used to ‘resolve’ (jiejue, i.e. ‘prove’) one another; although a separation of the physical and psychological is identified, it is not ontological in character, both being reducible to qi. Indeed, when we consider the one-to-one structural mapping presented in the diagram in combination with the fact that both cosmogonies address the entirety of what exists, it becomes clear that the two systems are seen as mutually enforcing means of describing the same underlying reality. Both the physics- and Yijing-based systems, in Xiaoping’s analysis, are ‘objective’ (keguan), and both have been developed from long-term observations of the world (tiandi, lit. ‘Heaven and Earth’). This view was echoed by Master Tao, and Ma Jianglong drew a similar table paralleling binary numeration, positive and negative charge, and yin and yang, summarising them as ‘one meaning, different expressions’ (yige yisi, butongde biaoda).

Homologism as a Type of Systematic Ontology

Descola titles his chapter on analogism ‘The Dizzying Prospects of Analogy’ (2013: Chapter 9), his point being that this mode of identification is capable of near-infinite expansion to accommodate all manner of phenomena through the linking of surface similarities. Superficially, Eight Trigrams cosmology appears to do the same, manifest in the form of its elaborate correlative cosmology; however, this question of ‘dizzying prospects’ may be considered in relation to the way in which analogism and homologism deal with alternative ontological systems. The discussion above demonstrated that modern physics, as understood by diviners, is readily accommodated with Eight Trigrams cosmology via structure-mapping – and as we have seen, in terms of general assumptions the two accounts of the cosmos do demonstrate genuine structural commonalities (monist cosmogony, legislative cosmology, continuous energy substance, scalar structure, conflation of physicality and interiority, space and time being considered in the same terms on a cosmic level and so on). However,

diviners' willingness to accommodate other viewpoints does not extend to certain religions or systems of thought – for example Christianity is notably singled out as incompatible, even if not as the object of the most vehement criticism, and Marxism may also be (but is not necessarily) seen as incompatible based on its alternative categorisation of reality. While certain superficial analogies may be drawn with other systems of thought, in many cases these do not hold up when the initial partial mapping between two cosmologies requires extension into a one-to-one structural correspondence.

The key point is that not all alternative cosmologies are amenable to accommodation into a homologist system, given that it rests on the continuity of physicalities and interiorities. This demonstrates an important difference from analogism (as a form of systematic ontology), the discontinuous physicalities and interiorities of which, constituting myriad singularities, are capable of subsuming any other perspective as yet another singularity. 'Analogist' collectives are characterised by an extreme flexibility in accommodating foreign deities for precisely this reason (Descola 2013: 275). In analogism, discontinuity is taken as first principle – but in homologism, the reverse is true, and its all-encompassing monism contradicts any non-monist perspective.

Homologism as Analogism's Counterpart

It is the case that superficial resemblances do exist between Eight Trigrams cosmology and analogism as systematic ontologies. Perhaps the most obvious criterion meriting this conclusion is the correlative nature of the principles of yin and yang and the Five Phases – though as Feuchtwang (2014b: 386) points out in response to Descola, these are properly seen as processes rather than elements. Responding to Feuchtwang's objection, Descola (2014: 436) argues that the crucial question is the point at which differences of this kind, raised in order to contrast Chinese cosmology with that of ancient Greece and Europe, 'become relevant according to the type of contrast that one wishes to emphasize'. Considering a contrast between

analogism and homologism understood as systematic ontologies, the question of cosmogony and attendant monism is central. An analogist assumption of polygenesis, a corollary of the ontological discontinuity of singularities, does render Feuchtwang's objection moot, as each process may thereby be considered ontologically separate from every other. However, if the processes are not separate but govern the constant transformation of a single continuous energy substance, we are immediately confronted by an entirely different mode of identification in which the notion of elements as ontologically distinct essences is rendered meaningless. The legislative character of Eight Trigrams cosmology requires such continuous transformation, contrasting markedly with an analogist system in which 'the ordinary state of the world is one of [ontological] difference infinitely multiplied, while resemblance is the hoped-for means of making that world intelligible and bearable' (Descola 2013: 202).

It is helpful here to consider the idea of the premodern West's Great Chain of Being, one of Descola's supporting examples, which illustrates the difference effectively (see Koyré 1968; Lovejoy 1976). The Great Chain of Being was based ultimately on immutable Platonic ideals (which were explicitly considered as such), and was fully characterised by discontinuity – a genuine analogist systematic ontology in which 'the genera are fixed, the species are indivisible, and living creatures are arranged in accordance with the degree of their perfection, each in its place in a *scala naturae* that also takes account of the differences in the functions of the types of souls with which each organism is endowed' (Descola 2013: 203). Here, discontinuity is given order via the application of an ostensibly objective standard – degree of perfection, with God, creator of each separate type, as absolute perfection. A standard such as this is necessarily a retrospective assessment of the results of creation, in which it plays no causal role other than as an attribute of the Creator. Moreover, placement on a graded scale of degrees of perfection necessitates evaluation based on analogical resemblances; to describe entities as differing in degree of perfection necessitates ontological discontinuity, as it is based on qualitative difference on a cosmic scale (something is either perfect or it is not – so any degree of resemblance an imperfect entity displays to a perfect entity may be based on superficial analogical similarity only). This is quite unlike the unifying principle of *qi*,

which is not a standard of comparison but the fundamental component of the cosmos, the transformation of which causes variation between entities and thus endows them with continuity. The principles of cosmic order for Eight Trigrams cosmologists are not standards of comparison but laws of continual change.

Totemism with Chinese Characteristics?

Scott (2014a) also raises the question of what a mode of identification based on cosmic-level continuity of both physicality and interiority might look like, pointing out that this is not the case for Descola's totemism. This does describe homologism, which logically replaces Descola's idea of totemism as analogism's counterpart. While Descola's totemism posits twin continuity, it does so only within a limited number of ontologically distinct classes. The relationship between totemic classes is in fact characterised by discontinuity of both physicality and interiority, which, if we are to take the level of the cosmos as the relevant scale for analysis (as it is for animism, naturalism and analogism), renders totemism a highly derived subset of analogism.⁴ In fact, this discontinuity between totemic classes is essential to their function as a basis of collective existence, which is built on the establishment of relations between these classes (Descola 2013: 148–57, 265–67). At the same time, at least in the paradigmatic Australian cases, totemic classes are held to descend from polygenetic Dream beings with whom within-class continuity is identified, meaning that on a cosmogonic level, ontological discontinuity is prior to the continuity within classes. It is thus hard to escape the conclusion that if totemism is considered on the same analytical level as the other three modes as systematic ontologies, then its existence as a distinct mode ceases to be justified – totemism in fact constitutes a series of bracketed sub-cosmic homological categories within a cosmic analogism. More can be said about how this concerns the relationship between reflective ontology and issues of classification; this is addressed in Chapter 4.

Conclusions

The systematic ontologies of Eight Trigrams diviners can be characterised as homologist based on the continuity of qi, the conceptualisations of the separability of the person and the ontological implications of monist cosmogony. Their salient features can be listed as follows:

1. Continuity of physicality and interiority across beings resulting from ontological monism (in contrast to analogist ontological pluralism).
2. No ontological distinction between physicality and interiority.
3. No ontologically discontinuous components of the person. Where the person is held to be separable into parts, such as 'body' and 'soul', both are held to be distinct, but ontologically continuous, states of the common energy substance.
4. An emphasis on the generation of resemblances on different scales based on common origins and processes.
5. A legislative cosmology that allows for the development of cosmologically rooted predictive empirical models, as discussed in the next chapter.
6. While humans are endowed with the ability to consider the cosmos, use language and so on, as discussed in the next chapter, humans are not ontologically distinct from other beings. Theoretically, as Master Tao pointed out, aliens could exist elsewhere with similar capacities and would

thus occupy the cosmological role of ‘humanity’ in relation to Heaven and Earth.

Notes

Some material from this chapter has been previously published as ‘Ontology with Chinese Characteristics: Homology as a Mode of Identification’, *HAU: Journal of Ethnographic Theory* 7(1): 265–85 (Matthews 2017b).

1. A more detailed ethnographic account of six lines interpretation, including for this hexagram, is provided in Matthews (2022; see Wang 2010 for a comprehensive manual of contemporary six lines prediction).
2. Clients are instructed not to mention their subject of enquiry until the hexagram has been obtained and annotated.
3. Moreover, unlike superficially analogous ‘empty’ concepts recurrent cross-culturally in discourse relating to ‘magical’ thinking, such as ‘mana’ or ‘evur’ (Boyer 1986), qi is used in the specific context of cosmological exegesis with the explicit theoretical purpose of explaining cosmic phenomena in terms of a basic ontological category.
4. Lambek (2014) similarly argues that totemism and analogism exist on different levels of abstraction.

FIGURATIVE THOUGHT FOR A COHERENT COSMOLOGY

Introduction

This chapter turns to the epistemological theories of Eight Trigrams prediction presented by diviners, exploring how these relate to systematic ontology and ethical considerations to create coherent cosmological accounts. The focus here is on explicit ideas, necessarily products of reflective cognition, rather than on aspects of cognition that make divination persuasive, such as the role of epistemic vigilance (Boyer 2020; Sperber et al. 2010). These epistemological accounts should therefore not be taken as straightforwardly indicative of ‘why’ diviners find divination convincing in the first place (that is, they do not come to divination with a ready-made epistemology of the kind described here, or necessarily consider other aspects of life or other kinds of knowledge according to this epistemology). Rather, these accounts should be seen as post-hoc explanations which have, historically and through individual learning, been refined to a point where they constitute established explanations that serve both as reflective justification for divinatory practice, and as sets of principles that aid reflective decision-making. They are significant as elements of Eight Trigrams cosmology because, in conjunction with systematic ontologies, they allow diviners to present a coherent cosmological account as a basis for their practice. The description of them as ‘post-hoc’ does not mean that they do not inform divinatory interpretation and decision-making, only that they are reflectively considered in order to evaluate and explain intuitive judgements and perceptions so as to render them coherent. It would be mistaken, therefore, to see these explanations as somehow ‘less real’ or less valid for diviners based on their reflective character.¹

As Master Tao’s six lines prediction has already been discussed, the initial focus of this chapter is on the notion of ‘resemblance’ (xiang) elaborated in detail by Ma Jianglong and Chang Weihong (2013), as well as Ma’s students. ‘Resemblance’ between entities is considered a reliable indicator of shared characteristics – it does the epistemological work needed to justify divination as a coherent cosmological practice, when combined with homology as a systematic ontology. Ma and Chang’s epistemological approach is described in the first part of the chapter, followed by an exploration of distinctions made by Ma and Chang and Master Tao between theoretical and practical knowledge – that is, elements of their own perspectives on questions similar to those discussed so far. This is followed by a related discussion of Master Tao’s understanding of what cannot be known via prediction, before moving on to an examination of Ma and Tao’s attitudes to the classification of modern phenomena (an issue of how to extend cosmological coherence to encompass phenomena unknown to the Yijing’s authors). Finally, this chapter considers the extent to which moral values are analogically linked to the epistemology of divination to extend coherence beyond the empirical claims of Eight Trigrams cosmology.

An Epistemology of Images

Both Ma Jianglong and Master Tao emphasised certain epistemological concepts that reflected the differences between their methods, but both relied on reducing human phenomena to a limited number of cosmic principles – six lines prediction takes this to an extreme through its systematic use of line correlates and their relationships. My understanding of Ma Jianglong’s methods is based entirely on his explanations (discussed in person and detailed in his and Chang Weihong’s book), as I was unable to attend sessions with his clients. Most of my interaction with him consisted of in-depth discussions at his office and home, often with Chang Weihong and students. Ma operates

in very different socio-economic strata from Master Tao, and his clients are charged far higher fees. His consultations are private, and clients are apparently less willing for outsiders to observe (unlike Master Tao's very public operation).

Ma's use of Eight Trigrams prediction is not confined to client services. Like Master Tao, he casts hexagrams himself, using his methods of *xuanxue* (lit. 'dark studies', metaphysical approaches drawing on Daoism and Confucianism with connotations of mysticism) or 'Dark Ultimate Changes' (*xuanji yi*), comprising various techniques including numerology, intuitive judgements based on the appearance of individuals or objects and their resemblances, and the manipulation of hexagrams' constituent lines. Here, I focus on the latter two, as these methods were far more prominent in our discussions and are those emphasised in Ma and Chang's book; these run parallel to his personally devised Yijing-based exercise regime, 'Fists of the Dark Ultimate' (*xuanji quan*), which consists of taiji-like martial arts routines for each hexagram that Ma considers integral to a true understanding of the Yijing's principles. Conclusions concerning appearances draw heavily on their resemblance of the images (*xiang*)² of the hexagrams described in the Yijing itself, referring to the overall meaning of hexagrams, which Ma attributes to homological connections between phenomena. The manipulation of hexagram lines constitutes a means of assessing situations from the perspectives of multiple actors or as they change over time, representing a distinct technical approach from that employed in six lines prediction.

Ma's epistemology is founded on the homological principle that sensible differences stem from differences in *qi*-field, and that these differences, and thus the character of entities and events, may be determined by 'imitation' (*moni*), in the form of repeating configurations of *qi*. A corollary of this is that a particular configuration of *qi* can be constructed by manipulation of objects so as to resemble it; this is the logic behind his physical exercises, which in imitating a particular hexagram promote the *qi* configuration described by that hexagram. Resemblance is a reliable indicator of real similarity; a sleeping person resembles a corpse, for example, and this resemblance correlates with the perceived absence of the soul from the body in both situations (see Chapter 2). At the same time, as all entities and events are interconnected, and 'humans do not have autonomy' (*ren shi meiyou zizhuxingde*), their actions being dictated by broader *qi* configurations, in principle any given entity may be used to provide information about others. Ma and one of his students illustrated this point with a story of a blind Ming dynasty monk, who was able to determine all sorts of information about a person based on holding a small piece of jade he was carrying, as its *qi*-field had been influenced by that of its owner, in turn influenced by the environment in which he had grown up.

Ma's methods of hexagram interpretation rely more on intuitive associations than Master Tao's six lines prediction, even though they are founded on the same basic principles of *qi*-fields. The primary contrast with six lines prediction is Ma's focus on the overall appearance of the hexagram rather than the cosmological correlates of each line, which never appeared in his explanations (though when asked, he said that six lines prediction was a valid alternative method). Whereas Master Tao takes the line as the primary epistemological unit in divinatory interpretation, Ma takes the entire hexagram, in its status as an image of a particular configuration of *qi*. Interpretation involves either focusing on the hexagram's visual appearance or manipulating its component trigrams and lines. Ma and Chang (2013) elaborate on the epistemological status of the hexagram images of the Yijing in some detail. For them, the images constitute indices of real-world phenomenal categories, which abstract the structural features common to all members of the corresponding category of phenomena. The image as represented by its symbol or by mental representation is itself explicitly recognised as an instantiation of the corresponding category of phenomena, an idea also implicit in six lines prediction. A hexagram image therefore has a metonymic relationship with all other members of its category of phenomena, all of which possess shared characteristics. That is, while the hexagram Qian, for example, is the image of 'Heaven', this is not because Qian symbolically refers to (or 'stands for') Heaven or vice versa, but because both are predicated on the same configuration of *qi*, instantiated at different cosmic scales (that of human communication and that of Heaven itself).

An image therefore constitutes a metonymic expression of a whole category of real phenomena unified by a common configuration of qi – that is, images are instantiations of real-world natural kinds, and function as prototypes for all members of their metonymic classes. In Ma and Chang’s view, images are positioned relationally based on ‘resemblance’ (xiang), and it is through resemblance that we are able to understand the true nature of things. In their commentary on the Hexagram Qian ䷀, they state that ‘that of which the images are produced is in meaning’ (象之所生，生于义也 xiang zhi suo sheng, sheng yu yi ye (2013: 160)), images being human constructs that meaningfully illuminate real entities. Epistemologically, images facilitate the comprehension of entities that are otherwise ‘veiled in mystery’ (shenmi moce), and better understood in terms of ‘a symbolic system of mutual resonance between pattern and image’ (wen xiang huyingde fuhao xitong) devised via observation of the world by the ‘Chinese ancestors’ (zhonghua xianzu) (ibid.). This, they argue, is why hexagrams are used in place of the phenomena they stand for; Qian is used rather than ‘Heaven’ (tian) because ‘Heaven is the name of a fixed entity, [but] Qian is a label for theory and practice. “Qian” is a meaningful image, but “Heaven” is too stark and direct’ (“天”是定体之名，“乾”是体用之称。“乾”是意象的，而“天”则过于直白！ Tian shi dingti zhi ming, qian shi tiyong zhi cheng. Qian shi yixiang de, er ‘tian’ ze guoyu zhibai) (ibid.). Heaven is indeed part of the category of Qian phenomena, but the image of Qian (i.e. as a prototype for all Qian phenomena) provides a far wieldier concept for epistemological manipulation, functioning as a point of reference for any entity or situation in the category. Further aspects of this are discussed in the next section; first, though, I illustrate some of the interpretive methods used by Ma.

The first example is one Ma gave me based on a visit to see a Master (dashi) in Guangzhou. The cast hexagram is known as the Principal Hexagram (zhugua) corresponding to Heaven and, of more practical importance, the client’s current situation. In this example, the Principal Hexagram is ‘Greater Domestication’ 《大畜》 Da Xu. From the Principal Hexagram, a ‘Mutual Hexagram’ (hugua) can be derived, a concept formulated in the early Han dynasty by Jing Fang, founder of the school of Yijing prediction of which six lines prediction is part (Rutt 2002: 97). This is done by using sets of lines within the Principal Hexagram to produce derived trigrams, which can then be used to assemble a second hexagram. Lines two to four are treated as the Mutual Hexagram’s lower trigram, in this case Dui ䷹; the upper trigram is similarly derived from lines three to five, in this case Zhen ䷲. Thus, the Mutual Hexagram here is ‘Marrying Maid’ 《归妹》 Gui Mei, shown below. The Mutual Hexagram corresponds to Humanity (ren), and, in practical terms, the process of change that the client’s situation will undergo.

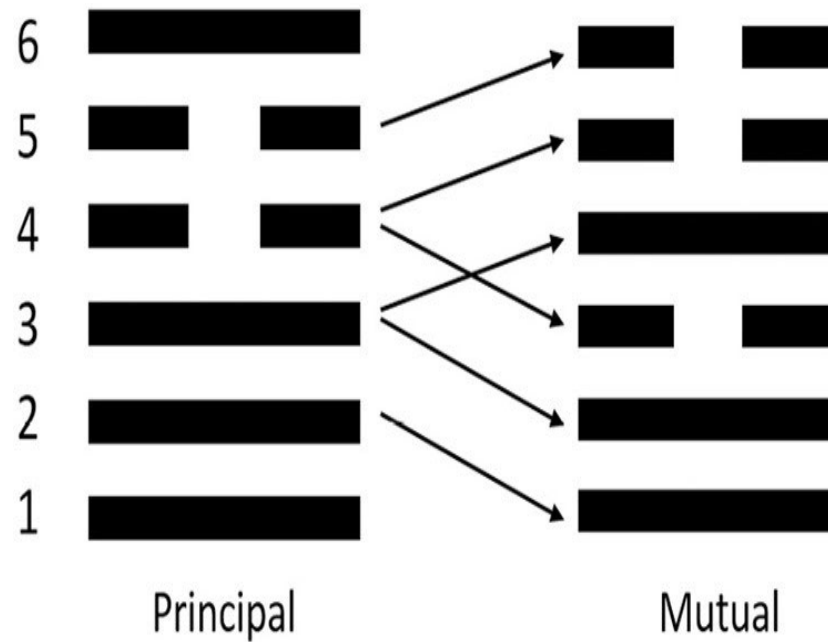


Figure 3.1 Generating a Mutual Hexagram. © William Matthews.

Third in the sequence is the Changed Hexagram (biangua), corresponding to Earth (di) or the future situation as a result of the process of change. In this case, line two of the Principal Hexagram changes, giving ‘Elegance’ 《賁》 Bi. This hexagram is derived in the same way as one would be from a ‘moving’ line in six lines prediction (see Chapter 2), via the transformation of a single line.

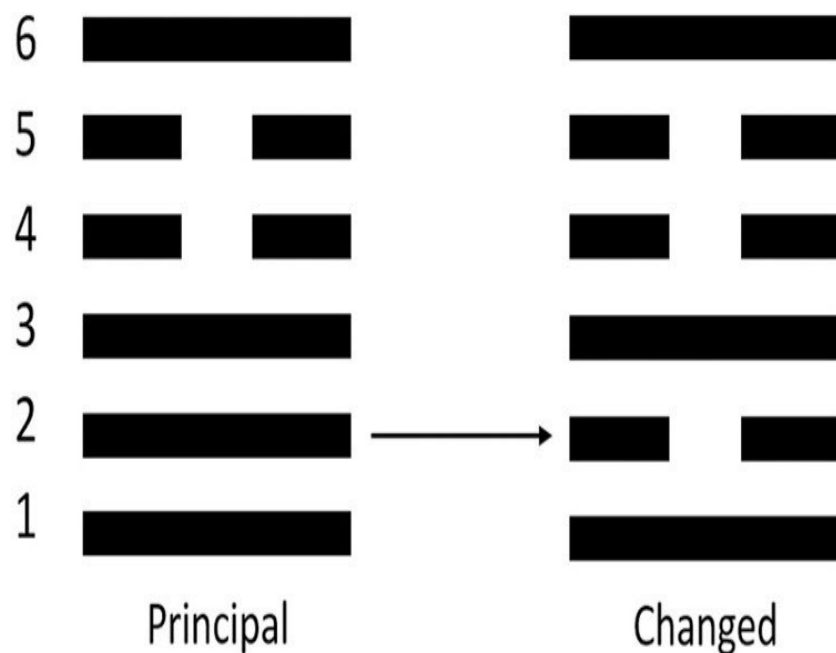


Figure 3.2 A hexagram changing on the second line. © William Matthews.

In addition to revealing the process of change, the Principal or Changed Hexagram can be manipulated to reveal the situation in question from the perspectives of others. The opposite party's perspective can be revealed through the 'Composite Hexagram' (zonggua), which is the upside-down version of the Principal Hexagram, in this case 'No Errancy' 《无妄》 Wu Wang:

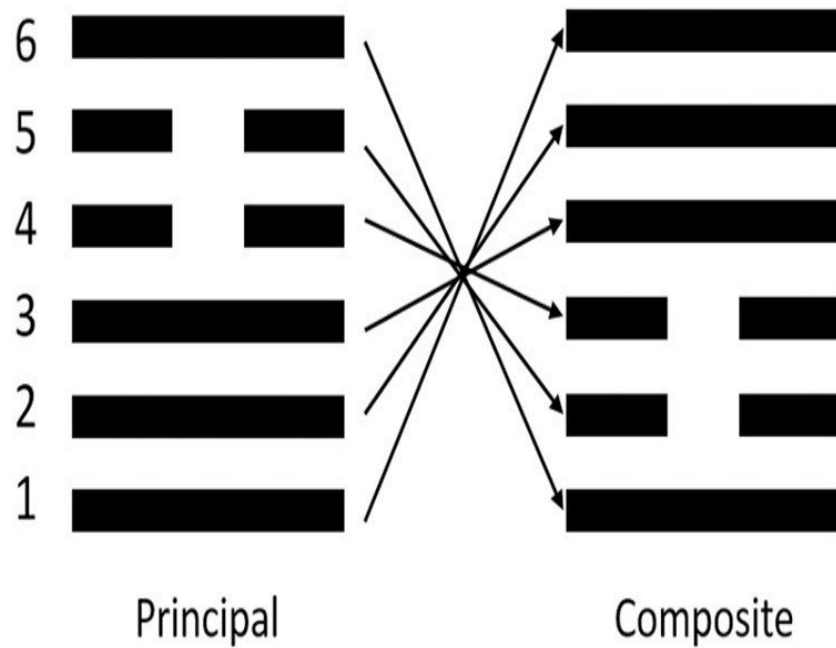


Figure 3.3 Generating a Composite Hexagram. © William Matthews.

Finally, the Principal or Changed Hexagrams can be inverted to produce an 'Interlocked Hexagram' (cuogua); here, each broken line becomes unbroken and vice versa. The Interlocked Hexagram allows one to examine the situation from the perspective of a 'third party' (disanzhe). In this case, the Interlocked Hexagram of the Changed Hexagram is 'Impasse' 《困》 Kun.

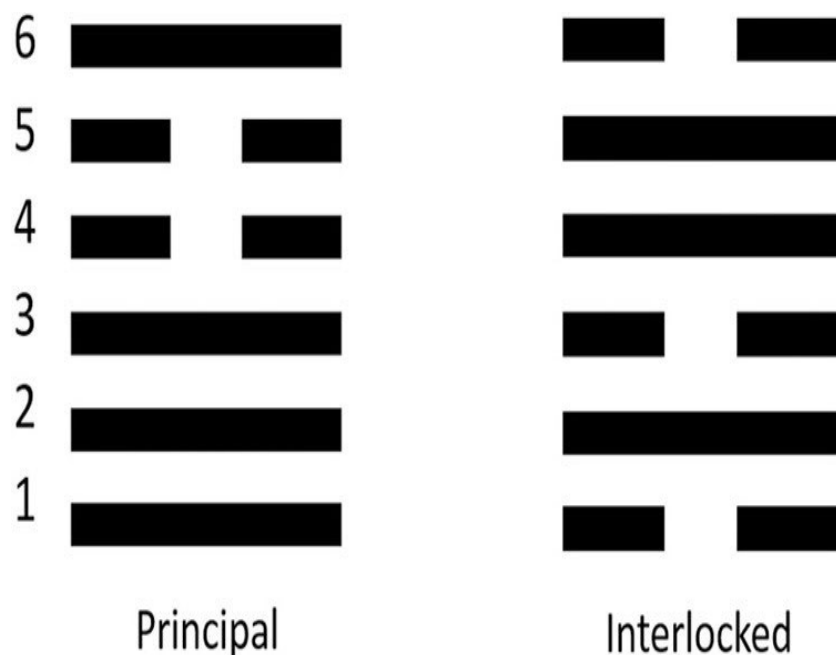


Figure 3.4 Generating an Interlocked Hexagram. © William Matthews.

Composite and Interlocked Hexagrams can be further manipulated to produce more Mutual, Composite and Interlocked Hexagrams in order to examine the situation from further perspectives.

Ma also takes a less technical approach based on the connotations of component trigrams. For example, he showed me a hexagram, Bo 《剝》 ䷖ ('Peeling'), cast by a client whose mother was ill, and whom Ma predicted would die. His judgement was based on the associations of the component trigrams. The lower trigram was Kun ䷁, which refers metonymically to the mother. However, the upper trigram was Gen ䷂, metonymic for 'Mountain' – and, as Ma explained, a traditional tomb (fen) is shaped like a hill. Hence, the hexagram shows the client's mother beneath (i.e. in) a tomb, indicating that she will die. Based on similar reasoning, he explained that the hexagram Huan 《換》 ䷺ is auspicious for fengshui (lit. 'wind and water') practitioners, because it consists of the trigram Xun ䷴ (Wind) above Kan ䷜ (Water).

However, his emphasis on hexagram appearance frequently goes beyond the generally accepted metonymic categories, which are ultimately derived from the Explaining the Trigrams commentary of the Yijing, and the accommodation of the correlative cosmology of the Yijing's Ten Wings commentaries with that of yinyang and the Five Phases. For example, Ma explained that the hexagram 'Lesser Domestication' 《小畜》 Xiao Xu ䷈ may be seen as indicating a need or potential to 'save money' (cunqian) because the broken fourth line, alone among solid lines, gives the appearance of the slot in a money box. Moreover, the hexagram 'Greater Domestication' 《大畜》 Da Xu ䷙ appears to have a larger slot, and thus may indicate the ability to save more money. Ma describes this type of reasoning as 'figurative thought' (xingxiang siwei), integral to his general methodological and teaching approach of 'opening up the Changes brain' (易腦開發 yinao kaifa), a key topic of his and Chang's book that draws heavily on ideas of developing both left- and right-brain potential. Notably, while the manipulation of hexagram lines relies on reflective cognition, in common with the line interpretations in six lines prediction, 'figurative thought' places greater emphasis on intuition as a means of arriving at divinatory judgements. These are then considered reflectively in relation to a client's situation, as cosmological indices. The epistemological

implications of this approach are discussed below, along with salient epistemological concepts employed by Master Tao.

Epistemological Categories

Both Ma Jianglong and Master Tao referred to several forms of knowledge classification. For Master Tao, this issue arose in response to my own questions concerning the role of the Yijing in interpretation. In contrast, for Ma Jianglong – who for the purposes of teaching has attempted to create a unique approach to the Yijing and the use of its theories – questions of knowledge categories are explicitly dealt with as part of his work, including in his book.

Regarding the Yijing, Master Tao drew a distinction between *dao* and *li*, two characters which, among various meanings, may both be glossed as ‘laws’ or ‘principles’, and which together form the word *daoli* (reason, principle; cf. Ziporyn’s ‘coherence’ (2012, 2013)). Art historian Chen Zhuanxi (2006), discussing painting, describes *dao* as referring to a more general set of principles (typically those governing the cosmos), and *li* as denoting specific, concrete principles governing a specific entity. Indeed, Master Tao described *dao* in terms of the ‘theoretical aspects’ (*lilun fangmian*) of prediction. For him, the Yijing itself provides a *dao*, a set of general principles from which the six lines method he uses is ultimately derived, but which is not specific enough in practice – any interpretation based purely on the content of the Yijing will be ‘unclear’ (*shuo bu qingchu*, lit. ‘cannot be spoken of clearly’) and therefore inadequate. He further described the content of the *Zhouyi* as ‘extremely difficult to understand’ (*feichang nandong*); indeed, like most diviners in his opinion, he was taught orally, and only later read the Yijing. He illustrated his point further with reference to the difference between communism in theory and in practice. Marx and Engels, he explained, elaborated a communist system but did not address the practicalities of its implementation, which became apparent only when the theory was actually put into practice. It is for this reason, Master Tao argued, that the CCP adopted the idea of ‘Socialism with Chinese Characteristics’ (*Zhongguo tese shehui zhuyi*), which represents communism-in-theory as practically adapted to Chinese reality. In the same way, six lines prediction constitutes an Yijing-rooted method adapted as necessary for practical use.

Ma Jianglong makes a related distinction between epistemology and methodology, which he describes as existing in a dialectical relationship: ‘epistemology determines methodology, and methodology advances epistemology’ (*renshilun jue ding fangfalun, fangfalun cu jin renshilun*). He relates ‘epistemology’ (*renshilun*) to ‘theory’ (*lilun*) – that is, an abstract system of knowledge – and ‘methodology’ (*fangfalun*) to ‘principle’ (*daoli*) and ‘practice’ (*shijian*). ‘Principle’ here is to be understood in the sense of fundamental cosmic principles, formulated as ‘the *dao* that legislates the self-so [i.e. the cosmos or ‘nature’ in its broadest sense, including humans]’ (*dao fa ziran*). What this view suggests is that method is what provides access to the real world, the implication being that methods may be more or less accurate. ‘Epistemology’ constitutes a theory of knowledge, and different epistemologies, in Ma’s view, may reveal different aspects of the same. These can strengthen methodology, in accordance with cosmic principles, in a mutually reinforcing relationship. The relationship between these concepts in the thought of Ma and Master Tao is summarised in Table 3.1 below. As the table suggests, theory and practice, and the relationship between them, are understood in broadly similar terms by both Ma Jianglong and Master Tao.

As has been discussed, however, the two diviners demonstrate subtle differences in their understandings of this relationship. For Master Tao, practice, whether of Yijing prediction or of socialism, implies potentially substantial modification of the original abstract theories, a position that coheres with his insistence on the fallibility of human observation as evinced by the accuracy of real-world predictions, discussed later in this chapter, as well as his constant methodological recourse to the fixed correlations of the cast hexagram. Like Ma Jianglong, Master Tao subscribes to the notion that the cosmology of the Yijing is ultimately derived from observation of the cosmos, and as such acknowledges a degree of correspondence between human perception and external reality; the difference is

one of emphasis. Ma Jianglong focuses more on the mutually enforcing relationship between theory and practice, as opposed to a need to modify an inadequate theory, the inadequacy of which is implicitly inevitable. This similarly reflects his own methodological emphasis on intuitive connections, which themselves constitute evidence for the validity of his epistemology. Like Master Tao, Ma comments on the limitations of human thought, but his emphasis in practice is on the inherent capacity of humans to understand the cosmos by comprehending the principles of Eight Trigrams cosmology and an acceptance of constant change. Thus, in contrast to Master Tao’s emphasis on the fixed cycles of correspondence, Ma focuses on intuitive flexibility of methods dependent on client and circumstance. For him, ‘transformation is the soul of the Yijing; if methods [of prediction for individual humans and animals] are all the same, then that’s religion, not the Yijing’ (變易是易經的靈魂，如果方法都一樣，那是宗教，不是易經 bianyi shi Yijing de linghun, ruguo fangfa dou yiyang, na shi zongjiao, bu shi Yijing).

Table 3.1 A comparison of epistemological concepts concerning theory and practice in the thought of Master Tao and Ma Jianglong. Table by author.

	Theory/Abstract	Practice/Concrete
Master Tao	‘Way’ 道 dao	‘Principle’ 理 li
	Marxism	Socialism with Chinese Characteristics
	Yijing	Six Lines Prediction
Ma Jianglong	Epistemology 認識論 renshilun	Methodology 方法論 fangfalun, Practice 實
	Theory 理論 lilun	Cosmic Principle 道理 daoli
	Yijing Thought Model 易經思維模式 Yijing siwei moshi	Comparison of Category Images 比擬類象

In their book, Ma and Chang outline their epistemological position in some detail, relating it explicitly to the content of the Ten Wings, commentary by commentary (2013: 010–017), as part of their ‘thought model’ (siwei moshi), and beginning with the proviso that ‘any type of scholarship is the product of a particular thought model’ (任何一门学问都是某种思维模式的产物 renhe yi men xuewen dou shi mou zhong siwei moshide chanwu), that in question being found in the Appended Phrases (ibid.: 010). They acknowledge here that the hexagrams may be approached from different angles, and that these are reflected in the commentaries. In particular, they draw a distinction between judgements (tuan) and images (xiang), corresponding to the Commentary on the Judgements and Commentary on the Images, and referring respectively to a hexagram’s ‘inner moral character’ (neizai pinde) and ‘outer moral character’ (waizai pinde) (ibid.: 11). The judgement provides a definition, but the image, the outer appearance, or an example or analogy of the hexagram. Following this, they describe the ‘comparison of category images’ (比擬類象 bini leixiang) as an important thought model in Changes studies – and central to their epistemological approach is the relationship that this comparative exercise has to reality.

It is worth here quoting some key passages from their book (translations are my own). The first quotation follows immediately from a discussion of the relationship between Heaven, Earth and Humanity, which concludes with the comment that the Ten Thousand Things are all products of the interaction of Qian ䷀ (the first hexagram, extreme yang, comprising six unbroken lines) and Kun ䷁ (the second hexagram, extreme yin, comprising six broken lines), and that humans are no exception. An important implication of this is that the remaining sixty-two hexagrams are similarly products of Qian and Kun; the categories Qian and Kun are metonymic with yang and yin in their purest states (though these states of course contain the potential for change). Ma and Chang’s description is as follows:

人既然也是乾坤交感所形成的一份子，那就可以给人看象了。

怎么看呢？

第一步，把握乾坤的特性。

通过由乾影响的日、月、星所造成的这个文得出乾的特性，再通过由坤影响的山、川、野所造成的理得出坤的特性。

第二部，根据文理给人看象。

可以推测人的性格类型、喜怒哀乐的特点。我们可以根据所观之人的大象，来推测所含的日、月、星的成分；日、月、星属于发光的东西，因而也是一种灵气的显现。

如果此人含日的成分多，那么，此人一定热情大方；如果含月的成分多，那么，此人也许志、慧相伴——既有志气又有足够的智慧。

当然，这种成分并不是太阳、月亮、星星的某一部分，而只是作为一种类比，即类象。(Ma Jianglong and Chang Weihong 2013: 014)³

Since humanity is one element of that formed by the interaction of Qian and Kun, then it is possible to look at the images [xiang] of people.

How can we look at them?

The first step is to grasp the specific properties of Qian and Kun.

By means of the patterns created by the Qian-influenced Sun, Moon and stars, the specific characteristics of Qian can be derived. Again, through the texture of the Kun-influenced mountains, rivers and wilds, the specific characteristics of Kun can be derived.

The second step is to look at people's images according to these patterns.

It is possible to infer the type of a person's disposition, and the characteristics of their full range of emotions. Based on the broad Image of the person we are observing, we can infer the elements of the Sun, Moon and stars that they harbour. The Sun, Moon and stars are part of [the category of] luminous things, and so also a kind of manifestation of spiritual influence.

If the person in question harbours many Sun elements, then they are definitely enthusiastic and generous; if they harbour many Moon elements, then they are probably a combination of ambitious and wise – then they have ambition as well as sufficient wisdom.

Of course, this type of element does not constitute a piece of the Sun, Moon or stars, but is only an analogy, a category of image.

This describes an epistemology based fundamentally on resemblances. Indeed, later on, in their commentary on the Appended Phrases I, Ma and Chang argue that a focus on 'resemblance' (xiang) constitutes a fundamental point of difference between 'Eastern' (read: Chinese) and 'Western' culture, whose emphasis on 'being' (shi) implies that 'resemblance' is epistemologically irrelevant:

东方人喜欢说：“像”。比如说，那个云彩像马，所以叫天马行空；这棵树像龙，所以叫龙树。

西方人严谨，喜欢说：“是”。云彩就是云彩，树就是树。(Ibid.: 6)⁴

Easterners like to say 'resembles'. For example, that cloud resembles a horse, so it is called a heavenly horse running through the skies; this tree resembles a dragon, so it is called the dragon tree.

Westerners are strict, and like to say 'is'. Clouds are clouds, trees are trees.

The question of why someone resembles something is crucial. Ma and Chang address this point:

同样，我们也可以根据所观之人的大象来判断其山、川、野的情况。如果是像长江，那么他就有长江的特性；如果是像泰山，那么他就有泰山的特性。像长江，则此人热情奔放；像泰山，此人就比较内敛文静。

总之，长江之所以是长江，泰山之所以是泰山，肯定由于受到大地的布局影响形成的，而大地的布局又是受什么支配呢？

是受坤支配的！

以上这些是华夏先哲特有的方法，通过自己的切身体验，来探讨宇宙的本来面目。

既然我们根据宇宙的原理获知了对事物的诊断原理，那么反过来通过掌握对事物的诊断原理，我们也可以知道乾坤的特性。

人类的认识首先是从客体出发，而积累到一定程度后就可以从主体去认识客体。从这一点来看，我们还是强调人认识社会、改造社会的主观能动性的。(Ibid.: 014–015)⁵

Likewise, based on the broad image of the person we are observing, we can assess the situation of that image's mountains, rivers or wilderness. If [the person's image] resembles the Yangzi River, then he has the specific characteristics of the Yangzi River; if [he] resembles Mount Tai, he has Mount Tai's specific characteristics. In the case of resembling the Yangzi, the person is enthusiastic and unrestrained; the person resembling Mount Tai is relatively reserved and gentle.

In short, [the fact that] that of the Yangzi is therefore the Yangzi, that of Mount Tai is therefore Mount Tai, is definitely the product of the influence of the Earth's composition; but what governs the composition of the Earth?

[It is] governed by Kun!

Those described above were the specific methods of China's ancient sages, [who] through their personal experience inquired into the original appearance of the cosmos.

Since based on the principles of the cosmos we can learn of the diagnostic principles of things, conversely through grasping the diagnostic principles of things we can know the specific characteristics of Qian and Kun.

Human understanding begins from the objective, yet after accumulating [it] to a sufficient degree one may understand the objective via the subjective. Looking at it from this point of view we are still emphasising the subjective dynamic role of humans' understanding and transformation of society.

As described in the preceding chapter, apparently analogical resemblances between disparate entities are in fact the product of common laws and configurations, in this case the configuration of qi characterising Kun phenomena. This principle allows for a number of epistemological conclusions. Firstly, 'resemblance' is a reliable indicator of the specific qualities of a given entity. That is, one may trust one's perceptions of similarities between entities as pointing to real shared characteristics. Secondly, as the characteristics of the Yangzi or Mount Tai are the products of their geographical and geological configuration ('the product of the influence of the Earth's composition'), both must be products of a common principle, Kun. As such, the characteristics of Kun may be ascertained via the investigation of the Earth's composition. Likewise, the reverse is true. Hence, by applying the objective principles of the cosmos, the world may be known – and an accumulation of knowledge provides a foundation for an intuitive grasp of these principles and their manifestations. Overall, this presents an epistemology based on these principles and their manifestations, which demonstrate one another tautologically. Recourse is made to 'China's ancient sages' as a means of drawing authority for this position. This link is made on top of the intuitively satisfactory formula that knowledge of principles may be derived from the observation of patterns of resemblance between phenomena, and that having been formulated, such principles may serve as a predictive explanatory framework – exemplified by the different kinds of hexagram presented at the beginning of the chapter. The appeal to traditional knowledge, though, adds legitimacy to this way of knowing as a specifically Chinese practice, and is particularly important to Ma and Chang, as they subsequently argue that this approach, which they term 'dark studies', both encompasses and is superior to 'science' (kexue); insofar as this is the case, the appeal to ancestral cultural authority serves also to defend against the challenge of alternative knowledge systems such as Western science (see Matthews 2017a).

'That Which Cannot Be Spoken of Clearly'

Master Tao often stated that six lines prediction is not 100 per cent accurate, and that one should mistrust anyone who says they can predict with such accuracy. He rated his own predictions as having a success rate of 70 or 80 per cent (a returning client had it at 60 to 70 per cent). However, in Master Tao's view it is theoretically possible to

predict with 100 per cent accuracy, because the Yijing system encompasses everything in the cosmos; humans, though, are fallible. As a result, all predictions have ‘accurate’ (zhun) and ‘inaccurate’ (bu zhun) aspects; this is seen as inevitable in any predictive system, including modern meteorology. In one of my early meetings with Master Tao, he explained that inaccuracies can be attributed to three different causes: the client’s ‘heart-mind lacking integrity’ (xin buzhen), the fortune-teller’s knowledge being insufficient and imperfections in the interpretive system owing to its age. As the third point seems at odds with the general impression given that the ancestors and their works constitute a supreme authority, I take it to refer to the way in which the system is applied to new types of situation or complex situations unknown to its original developers. This is supported by what Master Tao told me immediately afterwards about guarding against these three problems: the client needs to believe in the efficacy of the system, the diviner must have sufficient knowledge, and one ought to confine oneself to ‘using one hexagram to judge one situation’ (yi gua duan yi jian shiqing) or making ‘one judgement per thought’ (yi si yi duan). Regarding belief in the efficacy of the system, the fact that human mental activity itself derives from qi means that the mental state of the client has a direct causal relationship with the coins being thrown – this may be logically extended to the mental states of others in the vicinity, including the diviner (and indeed all thought at that moment across the cosmos). Lack of belief in the system has the effect of reducing the accuracy with which the yielded hexagram reflects cosmic reality.

We can see from this explanation that inaccuracy is held to occur primarily as the result of human error; for this reason, Master Tao placed great emphasis on ‘accuracy’ as an ethical value to which diviners should aspire (Matthews 2017a). Likewise, recall that as discussed above, Master Tao assumes that human-produced theories, including that found in the Yijing, necessarily require modification if they are to have real-world efficacy. This perception of human fallibility should also be contextualised in relation both to general tendencies in certain forms of Chinese correlative cosmology, which have existed since the system began to be formed in the late Zhou dynasty, and in terms of Master Tao’s individual understanding. Correlative cosmology has never been monolithic, and while certain correlative cosmologists have embraced a central (if not ontologically distinct) role for humanity, others have denied humanity any privileged cosmic position, and the human capacity to know the world has frequently been questioned. Master Tao echoed these sentiments from a different angle when I asked him about the relative positions of humans and animals in the cosmos. He accepted an evolutionary account of human origins, pointing to the *Homo erectus* (‘Peking Man’) fossils from Zhoukoudian as evidence, and while he told me that he did not believe that any other Earthly species could arise with human levels of perception, he accepted the theoretical possibility, and the possibility of intelligent alien life, about which he was more optimistic. Both possibilities would result in beings with equivalent status to ‘Humanity’ (ren) between Heaven and Earth; these views were shared by Ma Jianglong, with the exception of the idea of human evolution, which he considered impossible, as species are products of fixed configurations of qi. Master Tao saw humans as evolved beings with no inherently unique position (that is, ren qua *Homo sapiens* are not inherently privileged epistemologically or ontologically), fully capable of erring in their judgement and generally unable to form accurate theories without careful adjustment in practice.

The most interesting aspects of Master Tao’s view of what is and is not knowable came out of a conversation with him and Xiaoping concerning the existence of ‘souls’. After discussing this for some time, Master Tao ultimately said that such things ‘cannot be spoken of clearly; [they are] very complicated’ (shuo bu qingchu, hen fuza). He explained that Eight Trigrams prediction provides a ‘logic’ (luoji) for phenomena; it can tell you, for example, that you will meet a certain kind of person in a certain kind of place. What it cannot do, however, is tell you why it is the particular individual that it will be; such things ‘have no logic’ (meiyou luoji). Like Ma, he likened the Yijing and Eight Trigrams to an ‘equation’ (fangchengshi) – though unlike Ma, he added that they are not part of xuanxue (‘dark studies’). Thus, Master Tao’s attitude to the Yijing diverges significantly from that of important Western theorists of divination, including Jung and his take on the Yijing (1989) and Willis and Curry’s approach to astrology (2004). Master Tao, professional predictor and part of a traditional lineage of practitioners, occupies exactly the position derided by Willis and Curry as ignorantly Western, modernist and scientific. For them, the whole point of divination is that it is not reductive, that it provides an excess of meaning and re-enchants the world (i.e. makes it mysterious). For Master Tao, there was either clarity or lack of clarity. Unnecessary mystery is ‘swindling’ (pian), and that which cannot be spoken of clearly cannot be addressed through divination, even via a system that is held to fully explain the cosmos. Master Tao’s emphasis on that which cannot be spoken of clearly

suggested the ineffable, numinous aspects of such experience as outside the remit of his methods. Indeed, when I asked him about whether or not the predictive system could be improved in future, Master Tao responded by saying that in the future people may have different ideas of what ‘cannot be spoken of clearly’; as he often did, he had a phrase to back this up, expressing the changes China had undergone in the previous century and the radically different understandings of the world they brought: ‘electric lights, telephones, foreign Chinese, foreign foods, no need for an ox to plough the land, no need for oil to light a lamp’ (電燈電話洋華洋耙，耕地不用牛點燈不用油 diandeng dianhua yanghua yangba, geng di bu yong niu dian deng bu yong you).

Classifying Modern Phenomena

Diviners today are presented with the epistemological problem of dealing with phenomena unknown to Eight Trigrams cosmologists in earlier periods. Ma Jianglong explained to me that taking account of modern objects relied on incorporating them on the basis of the ‘basic meanings’ (benyi) of the Eight Trigrams. Indeed, one of his students, in preparing materials for their upcoming training course on using the Yijing in business, compiled a list of all kinds of objects and phenomena classified by hexagram. Unfortunately, I was unable to study it in detail as access was restricted to participants on the course, which was prohibitively expensive. The classification employed by Ma and his students varies depending on the specific aspect of an object being considered, as well as whether that object is being considered in relation to others in a particular class. The chief epistemological consideration in such classifications is ‘elasticity’, or capacity to change according to circumstances (linghuo). The result is that the same object may be classified according to different trigrams in different situations. For example, an air conditioner may be classified as Xun, metonymic with wind, and electricity as Li, metonymic with fire. Equally, a table can be classified as Gen based on a visual similarity with that trigram (☶). In differentiating between similar objects, a particular attribute may be considered; in the case of telecommunications, the primary means of information transfer determines classification: a traditional telephone (dianhua) is classed as Dui, which is related to the mouth (kou) and speaking (shuo), while a mobile phone (shouji), relying on ‘beautiful’ (meili) coloured images, is classified as Li, metonymic with fire and beauty.

Ma took this further with examples of how trigrams may be used to classify vehicles, paying particular attention to the appearance of their symbols. ‘Cars are Kan’ (che shi Kan) because the symbol, ☵, resembles a car viewed from above. Cars can also be related to water, as in the expression ‘carriages [like flowing] water, horses [like a swimming] dragon’ (che shui ma long), indicating heavy traffic (this sort of linkage via spontaneous association is typical of Ma’s descriptions). He emphasised that such a classification should be taken to mean that ‘Kan resembles a car; one cannot say “it is”’ (Kan xiang ge chezi, bu neng shuo ‘shi’). That is, the defining metonym of the category cannot be taken to be any one of its constituents, but one can say that ‘cars are Kan’. Members of a hexagram category may be defined by that category, but the reverse is not true. However, all trigrams may ‘represent cars’ (daibiao che) based on their appearance (such as Kun ☷ representing a bus full of passengers) or qualities (such as Xun, metonymic with wind, representing a fast car), depending on the aspect being considered (recall the importance of different scales of encompassment, and the existence and relative salience of different qi configurations at different scales). Such ‘representation’ can only be taken as metaphoric (i.e. substitutional) insofar as it is confined to language; in manipulating the trigrams and hexagrams, insofar as these constitute phenomena they are not representational but metonymic, products of a common causal basis, Kun embodying the same underlying characteristics as the bus at a given cosmic scale.

The classification of some modern objects thus does not present any particular problem for Eight Trigrams cosmologists, but what about phenomena that more directly call into question its foundational principles? During my return visit to Hangzhou in 2015, I decided to ask Master Tao how six lines prediction might deal with relationships that do not neatly fit into the Confucian framework that defines the yongshen referents, particularly given Eight Trigrams cosmology’s axiom that everything within the cosmos is explicable in terms of the trigrams. Following a discussion of the natural referents of the trigrams and how these related to the yongshen, I asked him

how six lines prediction deals with homosexual relationships and transgender individuals, given the system's focus on Confucian kinship and gender norms (these are described in more detail in the next section). Master Tao was greatly entertained by this, and clearly considered it a very good question – and apparently one he had considered before in relation to clients. He explained that in the case of homosexuality, 'the reaction [of the hexagram] is very strange' (fanying hen qiguai), though the client's sexual orientation 'cannot be seen from' (kan bu chulai) the hexagram itself. However, as regards romantic relationships, their (potential) partner (duifang) is indexed by the yongshen referent 'Brothers', regardless of their gender. In this sense, they are seen cosmologically as equal rather than cosmically complementary partners, with no hierarchical relationship between them. Hence, according to Master Tao, while homosexual relationships remain 'unaccepted' (bu jieshou de) from the perspective of 'proper morality' (zhengque daode), they can still be accounted for by the cosmological principles upon which that perspective is based. Master Tao didn't express a personal opinion on this, but related it to the shift in morality away from the traditional model of 'men as the roots and women as the branches' (nan gen nü zhi) set in motion by the May Fourth Movement and the promotion of sexual equality under Mao. Some such changes may be visible in hexagrams, such as when 'a wife wrests authority from her husband' (qi duo fuquan).

Grounding Ethics in Cosmology, by Analogy

Questions of ethics, particularly concerning gender, are intimately connected with the epistemological principles of Eight Trigrams prediction.⁶ However, while moral concerns are closely related to predictive practice, the cosmos of which they form part cannot be properly considered moral, and diagnoses and predictions themselves are amoral in character. While moral or immoral actions have cosmological consequences, these consequences do not arise out of the actions' moral quality per se. Rather, humans perceive certain actions as moral or immoral, and this perception is a product of amoral cosmic principles, being subsumed, along with all other conscious experience, to the transformation of qi; that is, moral capacity and judgement are themselves products of qi transformation. The moral dimensions of Eight Trigrams cosmology are thus related analogically to cosmic principles, broadly through the association of moral goodness with socio-cosmic harmony and moral badness with socio-cosmic disharmony. Thus, moral truths are not knowable in the same way as cosmic truths; harmonious relations are discernible and predictable within the objective domain of the cosmos via the homological, resemblance-based epistemological strategies so far outlined, but their value is the product of analogy between the objective domain of the cosmos and the subjective domain of morals – a different kind of resemblance. These arguments are elaborated below in terms of Master Tao's understanding of gender relations.

This subject was one to which Master Tao returned briefly time and again, and this interest stemmed from his concern with 'Confucian' (rujiade) relational ethics. For Master Tao, these serve as a normative frame of reference for ethical judgements, but are grounded in cosmic laws rather than moral prescription (in a conscious merging of what he saw as 'Confucian' rules governing conduct and 'Daoist' theories regarding nature). Briefly, the Confucian relational and gender norms are encapsulated for Master Tao by the Five Cardinal Relationships (wulun) and the 'Three Followings' (sancong). The Five Cardinal Relationships are strongly concerned with filial piety (xiao), and express relationships of custodianship in exchange for deference and respect, respectively, between ruler and minister, father and son, older brother and younger brother, husband and wife, and between friends. The 'Three Followings' are broad guidelines for the relational ethics of women: in Master Tao's words, 'in the home, follow the parents; married, follow the husband; after the husband's death, follow the eldest son' (zai jia cong fumu, jiachu cong zhangfu, fu wang cong zhangzi). The only time when the situation is reversed, according to Master Tao, is on the wedding day, when the man must defer to the woman. These notions are related to the 'Three Principles and Five Virtues' (sangang wuchang); the Three Principles are relevant here, and state simply that ruler guides minister, father guides son and husband guides wife.

As described in Chapter 2, the position of women in relation to men is illustrated by the categorisations of relationships in hexagrams by the yongshen referents. From the point of view of a man, women with whom he is

or could be romantically involved come under the category Wives and Wealth; from the point of view of a woman, men come under the category of Officials and Ghosts. Here, despite a notion of complementarity, women clearly occupy a subordinate position in relation to men; to them, men are superior and sources of authority, whereas to men, women are assets like wealth. However, unlike the various Confucian formulae just discussed, the yongshen system is not intrinsically tied to morality or ethics. Rather, it constitutes a reflection of the ‘natural’ kinds of relationship into which humans can enter. Here, then, the hierarchical relationship between men and women indexes a cosmic principle, and any relationship between man and woman is intrinsically of this character. Cosmic forces naturally produce a certain type of relation, and one of ontological significance, as is reflected elsewhere in the explicit principles of Eight Trigrams cosmology. The relationship between man and woman is metonymic with that between Heaven and Earth, and ultimately with the relationship between Qian (extreme yang) and Kun (extreme yin). Owing to the resonant character of the cosmos, if a single aspect of it is disharmonious, this will have a greater or lesser disharmonising effect on the rest of the system, as explained in terms of the interaction between qi-fields.

Master Tao’s remarks concerning the relationship between Heaven and Earth and men and women led him to comment, when I asked him about the consequences of not paying attention to the Three Principles, that ‘a wife must listen to what her husband says; if she doesn’t, then she is not following a woman’s proper path’ (qi bixu ting zhangfude hua, ruguo bu ting, wei bu shou fudao). He added that such ideas, which he ascribes originally to the Analects of Confucius (《論語》Lunyu), are nowadays weakened, and that people no longer care about them. Our conversation in this instance related broadly to general Confucian values, including the idea that the nation should be governed according to Confucian teaching. However, the examples to which Master Tao returned invariably concerned gender. This was the case whenever such topics arose, and I suspect it owed much to the large proportion of his customers who come to him with marriage problems or questions about extramarital affairs, either of their own or their spouses. Today, according to Master Tao, only the older generations remember the time before Mao’s promotion of gender equality; Confucian values such as the Three Virtues and Three Followings, as with anything ‘from the past’ (guoqude), were discarded as ‘feudal things’ (fengjiande dongxi). In fact, on hearing Master Tao repeat the Three Followings, a young man standing nearby remarked that now it’s the opposite, that now men must follow women. During our previous meeting, Master Tao had explained that women’s changing position had caused many quarrels resulting from going against the natural order arising out of the cycle of yinyang. Fundamentally, this discourse demonstrates the general point that – speaking here strictly of explicit principles – ‘[i]n China, the morality of kinship provides the foundation for one’s closest relationships and the basis of engagements with friends, with more distant associates and personal conduct within wider society’ (Roberts 2013: 155); in this case, a woman’s proper role is ultimately dictated by her core kinship relations, her attitudes to which have a knock-on effect on wider social stability.

However, the validity of the yongshen conception of gender relations is an epistemological question rather than an ethical one. If we consider Master Tao’s remarks, we find on the one hand cosmological axioms such as ‘Heaven [is to] Earth [as] man [is to] woman’ (tiandi nannü), ontological claims about possible kinds of relationships and epistemological principles concerning the knowability of the cosmos via such relationships and their correlates, and on the other hand statements of moral values (it is a woman’s duty to listen to her husband, for example). How are these statements and their attendant beliefs connected as parts of a coherent framework? As has been demonstrated, the former group of principles are rationalised via a highly complex and sophisticated body of cosmological theory. The latter, though, possess no logical connection to this. Rather, Master Tao implicitly equates moral rectitude with the harmony of cosmic forces (which produces optimal results), and he does so purely analogically via the operation harmony : disharmony :: morally good : morally bad. This is not quite the same as equating moral goodness with what is ‘natural’; as shown earlier in relation to homosexuality, for example, phenomena that may be considered morally unsound remain fully explicable in terms of cosmic laws, so they cannot be said to somehow go against them (as they would in the naturalistic fallacy). What is morally bad is rather equated with that which, in line with cosmic principles, produces suboptimal conditions for human society from a perspective that values harmony – that is, that which produces disharmony or chaos in the human realm and the wider cosmos (such chaos nonetheless remains governed by the same unalterable cosmic principles as harmony).

This raises the question of how far the cosmos thus conceived can be considered ‘moral’, or, as Martin Holbraad (2010: 268) puts it, whether divination might ‘[rescind] the distinction between morality and cosmos’. Holbraad argues this based on the moral element central to many divination systems, suggesting that the moral character of divination presents a problem analogous to that of ‘truth’; he argues that verdicts in Cuban Ifá divination are true by definition, rather than by comparison with an external yardstick. That is, in Ifá a genuine divinatory verdict cannot but be true and moral, and therefore no distinction is made between the realms of cosmology and morality. This conflation is not present in Eight Trigrams prediction, consultations of which indicate auspicious dates, directions and so on that clients can consider and act upon to optimise outcomes. Moral judgement is not part of divinatory interpretation itself, which focuses on impersonal, amoral and constant cosmic forces as the causes of perceived fortune or misfortune; morality and ethics are rather features of prior and post-hoc evaluations of the situation in question. Any attribution of moral responsibility is absent from the diagnosis itself, as in other related mantic practices such as fengshui (Feuchtwang 1974: 223; Freedman 1979d: 211). Therefore, during interpretation, moral blame (as opposed to causal explanation) is actively externalised from the situation, ‘expand[ing] and distribut[ing] agency’ (Laidlaw 2010: 159, in a different context), here to amoral cosmic forces.

For example, a client consulted Master Tao about concerns relating to his marriage and how they were affecting his family and work. On this occasion, Master Tao was joined by a local friend with a keen interest in Eight Trigrams prediction, Mr Shu, who took to pitching in advice; the client meanwhile was accompanied by his female cousin, and the consultation took place more privately, a little away from the usual roadside spot. Based on the hexagram, Master Tao concluded that the client had a ‘mutually destructive’ (xiangke) relationship with his house, and that he and his wife were a poor match, with negative consequences for their children. Master Tao took care to emphasise that his statements were based on the hexagram rather than the ‘attitude’ (xintai) of the client; he continued that the hexagram, combined with the birth dates of the client and his wife, indicated that while the client’s wife was beautiful, she was also given to sexual promiscuity (qiangwai taohua, a euphemism, lit. ‘peach blossoms outside the walls’).

By emphasising the conflicts revealed in the hexagram, without involving ethical judgements on either the client’s or his wife’s behaviour, Master Tao presented the problem as cosmological rather than moral. Likewise, the client was interested in possible solutions that would have cosmological effects, including moving house or moving in with his parents-in-law. Though visibly distressed by the situation, he did not express moral or emotional concerns. Master Tao explained that the hexagram indicated that the client and his wife ‘do not help each other’ (meiyou huxiang bangzhu), meaning solutions of changing location would not be useful. After the client had left, Master Tao explained to me that the hexagram indicated that the client’s wife was in fact seeing another man; Master Tao had been evasive when the client asked for details about what might happen, saying simply that the situation was ‘very complicated’ (hen fuza). For both diviner and client, the problem presented for interpretation is an empirical one; the client, however, is also concerned with using that empirical information to inform ethical decision-making and action, but doing so outside the context of the consultation itself. The cosmological explanation and basis for action provided by divination left this client blameless, and ascribed his wife’s shortcomings to cosmic forces rather than moral failure.

Creating Coherence through Epistemological and Ethical Resemblance

Diviners do consider questions of ethics in relation to divinatory practice, as indicated by Master Tao’s decision not to straightforwardly inform his client about his wife’s affair; the ethics of practice is an important theme that I have discussed elsewhere (Matthews 2017a). From the point of view of cosmic coherence as established in Eight Trigrams cosmology, ethical practice can be considered in the same way as other ethical judgements; value judgements can only be based on cosmological principles by analogy, mapping moral categories onto cosmological ones and asserting that certain cosmological effects (such as harmony) should be considered moral. Moral

questions cannot be answered by Eight Trigrams prediction in the same way as empirical ones. While the reflective elaboration of epistemological accounts establishes coherence of cosmological principles, divinatory methods and sensible phenomena via homology, this cannot be done for moral values in the same way. While the existence of morality as a human faculty, and variation in this faculty between individuals, can be explained homologically (as the above example demonstrates), the content of judgements does not follow from homological principles simply because these principles cannot be used to derive the conclusion that, say, disharmony is morally 'bad', only that it has detrimental effects from a particular perspective. In this respect, Eight Trigrams cosmology resembles domains of knowledge such as science, in that it is only applicable to moral questions if individual moral judges have previously accepted a given moral standard. It can provide evidence for whether an empirical situation meets that standard, but cannot by itself explain why it is moral.

Therefore, in keeping with Master Tao's pronouncements on those numinous qualities of experience that cannot be spoken of clearly, Eight Trigrams prediction concerns what does, rather than what should, happen. In this conception, 'resemblances' between phenomena are taken to be a valid indication of real similarity owing to underlying common qi configurations. In this epistemology, 'resemblance' and underlying similarity are understood coherently by recourse to abstracted sets of principles, which can then be manipulated to draw conclusions – the correlative categories of six lines prediction, or the images of the Yijing itself, which constitute prototypic members of metonymic categories of phenomena. Thus, through reflective reasoning, epistemological theories of resemblance draw on and justify the systematic ontology of Eight Trigrams prediction and its practical use, creating a coherent cosmology. We are now in a position to apply this analytical framework to the historical development of correlative cosmology; the next chapter does this in relation to forms of classification and an epidemiological approach to cultural change.

Notes

1. There is some analogy here with moral reasoning, moral psychologists (Greene and Haidt 2002; Haidt 2001, 2012) having shown that explicit moral justifications and explanations for decisions occur after the act of moral judgement itself; people intuitively respond to something as a moral violation, and then reflectively seek explanations for why this is so, rather than their initial judgements following from sets of clear moral principles.

2. The characters for *xiang* as 'image' and *xiang* as 'resemblance' are distinct but etymologically related – see the Glossary.

3. Transliteration: *Ren jiran ye shi qiankun jiaogan suo xingcheng de yi fenzi, na jiu keyi ji ren kan xiangle.*

Zenme kan ne?

Di yi bu, bawo qiankun de texing.

Tongguo you qian yingxiang de ri, yue, xing suo zaocheng de zhege wen de chu qian de texing, zai tongguo you kun yingxiang de shan, chuan, ye suo zaocheng de li de chu kun de texing.

Di er bu, genju wenli ji ren kan xiang.

Keyi tuice ren di xingge leixing, xi nu aiyue de tedian. Women keyi genju suo guan zhi ren de da xiang, lai tuice suo han de ri, yue, xing de chengfen; ri, yue, xing shuyu faguang de dongxi, yin'er yeshi yi zhong lingqi de xianxian.

Ruguo ci ren han ri de chengfen duo, name, ci ren yiding reqing dafang; ruguo han yue de chengfen duo, name, ci ren yexu zhi, hui xiangban—ji you zhiqi you you zugou de zhihui.

Dangran, zhe zhong chengfen bing bushi taiyang, yueliang, xingxing de mou yibufen, er zhishi zuowei yi zhonglei bi, ji lei xiang.

4. Transliteration: Dongfang ren xihuan shuo: 'Xiang'. Biru shuo, nage yuncaì xiang ma, suoyi jiao tianmaxingkong; zhe ke shu xiang long, suoyi jiao long shu.

Xifang ren yanjin, xihuan shuo: 'Shi'. Yuncai jiushi yuncaì, shu jiushi shu.

5. Transliteration: Tongyang, women ye keyi genju suo guan zhi ren de da xiang lai panduan qi shan, chuan, ye de qingkuang. Ruguo shi xiang changjiang, name ta jiu you changjiang de texing; ruguo shi xiang taishan, name ta jiu you taishan de texing. Xiang changjiang, ze ci ren reqing benfang; xiang taishan, ci ren jiu bijiao neilian wenjing.

Zongzhi, changjiang zhi suoyi shi changjiang, taishan zhi suoyi shi taishan, kending youyu shoudao dadi de buju yingxiang xingcheng de, er dadi de buju you shi shou shenme zhipei ne?

Shi shou kun zhipei de!

Yishang zhaxie shi huaxia xianzhe teyou de fangfa, tongguo ziji de qieshen tian, lai tantao yuzhou de benlai mianmu.

Jiran women genju yuzhou de yuanli huozhiliao dui shiwu de zhenduan yuanli, name fan guolai tongguo zhangwo dui shiwu de zhenduan yuanli, women ye keyi zhidao qiankun de texing.

Renlei de renshi shouxian shi cong keti chufa, er jilei dao yiding chengdu hou jiu keyi cong zhuti qu renshi keti. Cong zhe yidian lai kan, women haishi qiangdiao ren renshi shehui, gaizao shehui de zhuguan nengdongxing de.

6. Parts of this section are published in a different form in Matthews (2022).



COSMOLOGICAL CHANGE

Historical Homologism and ‘Chinese Thought’

Introduction

The preceding chapters have presented an overview of the practice and explicit ontological and epistemological theories of contemporary diviners, showing that diviners like Master Tao and Ma Jianglong understand correlative cosmology in terms of constant causal principles unfolding and interacting across different scales, from the cosmic to the human, a conception crucial to developing a coherent understanding of the cosmos and human action within it. This chapter approaches this aspect of Chinese correlative cosmology in general, and Eight Trigrams cosmology in particular, from a historical perspective. In doing so it not only addresses questions of the historical longevity of homological understandings of the cosmos, which can be traced to at least the early Han, but also considers the analytical problems presented by classification systems. Sinological approaches to correlative cosmology have often seized on its use of ‘non-natural’ categories to argue that it is relational, processual or holistic, to the implicit or explicit exclusion of its being causal, essence-based or reductive (or analytic). Meanwhile, some anthropological approaches to classification have tended to take taxonomic systems as straightforward evidence for underlying ontological assumptions. By examining several examples of early Chinese texts, dating from the Warring States period to the early Han (that is,

from the fourth to first centuries BCE), this chapter assesses these claims in light of the arguments made so far about intuitive and reflective cognition, systematic ontologies and explicit epistemological theories in order to present a distinction between correlative taxonomies and correlative cosmologies based on systematic analogical and homological ontologies. These are contextualised in terms of an epidemiological approach to the transmission and evolution of cosmological conceptions, properly understood as distributions of representations among individuals.

Cosmology, Systematic Ontology and the Individual

Systematic ontologies are largely the preserve of specialists. Given that the sources of cosmological ideas in the later Warring States and early Han consist primarily of the writings of literate experts and scholar-officials, they cannot be taken as reliable evidence for the reflective understandings of the majority of the population. While these surviving writings tell us much about explicit conceptions of the cosmos and associated epistemological theories on the order of Master Tao and Ma Jianglong's coherent cosmological accounts, they likewise cannot necessarily be taken as indicative of how their authors apprehended the world in other aspects of their lives. Many of the more incredible claims that have been made by some sinologists¹ regarding apparent divergence between 'Chinese' and 'Western' thought stem from generalising the explicit, abstract, counter-intuitive claims of systematic speculation to day-to-day thought, and to the wider population.² This chapter considers what can realistically be concluded about early Chinese cosmological thought from the available evidence, in this case historical rather than ethnographic, and what this can tell us more generally about cosmological cognition.

As G.E.R. Lloyd (2014: 59) remarks of ancient Greece, we see in late Warring States and early Han China 'an amazing proliferation of ontologies, of accounts of what there is' – that is to say, there are as many systematic ontologies as there are cosmologists, even when key concepts are shared

(something which the various points of divergence between Master Tao and Ma Jianglong have already indicated). As a corollary of this, two forms of diachronic change in systematic ontology can be distinguished. One constitutes a shift in the aggregate tendencies of individuals' systematic ontologies, in terms of content, over time within a cultural group, and alongside associated changes in frequencies of reflective ontological assumptions and cosmological practices and associated institutions (for instance, what Descola hypothesises as shifts from analogism to naturalism in Europe (2013: 205) and animism to analogism in north Asia (ibid.: 366–77), provided these are understood as systematic ontologies, and the association with certain conceptions of supernatural entities and divine communication with specific traditions of food preparation (Feuchtwang and Rowlands 2019)). Such a shift can be observed in the period under discussion here, the development of homological systematic ontology coinciding with political centralisation, imperial expansion and the standardisation of writing, measures and imperial ideology under the Qin and Han empires.

The other form of diachronic change, important as a driving force and consequence of the first, is that of shifts in an individual's own systematic ontological theories and reflective ontological assumptions – the reflective reassessment of beliefs that might be brought about, for example, when an Eight Trigrams diviner begins to read about physics or considers which hexagram indexes a car, or the intuitive impact of environmental changes, broadly construed, on perception and understanding (see Sperber 1997 for further discussion of changes in intuitive and reflective beliefs).

Cosmological understandings and systematic ontologies thus relate to individuals; differences inevitably exist between the apparently 'shared' ideas of any two individuals, which are the products not only of transmission but of the life-historical development and learning of the individual in the environment. What this means in practice is that, for example, a given concept will provoke different intuitive associations for different individuals, and by extension will influence reflective representation. Chapter 1 demonstrated this particularly starkly in the differences between Cancan's and Ma Jianglong's understandings of fengshui principles – a matter here of the different degrees of reflection to which concepts such as fortune, fish and

the Five Phases are subject. In Chapter 2, we saw how shared systematic ontological principles, such as a conception of ontological monism based on the transformative properties of qi, are nonetheless variably understood by different diviners and can support quite distinct conceptions, for example the existence or non-existence of a soul. Chapter 3 similarly demonstrated different epistemological conceptions on the part of Ma Jianglong and Master Tao that can be made to cohere with homological systematic ontology – ranging from relative emphasis on intuitive association, to paying methodological attention to hexagram lines or hexagrams as a whole, to what is or is not knowable.

We can consider patterns of how such understandings are distributed, and where they tend to converge or diverge between individuals. Considering Master Tao and Ma Jianglong, for example, we can identify clear convergences in terms of shared systematic ontological principles and an explicit understanding of resemblances as epistemologically reliable indicators of common qi configurations. Indeed, similar understandings of these principles can be confidently attributed to other Eight Trigrams diviners, practitioners of related activities and so on, whereas they are less likely to be possessed by individuals with less day-to-day concern with these practices or exposure to these concepts. These convergences can be causally attributed to large-scale (‘zoomed-out’) distributions of cosmological representations, facilitated by, for example, general education, availability of printed media and so on. However, the more we ‘zoom in’ on the particular reflective accounts of Master Tao and Ma Jianglong, the more divergences we find; these should be attributed to aspects of individual life history (such as Master Tao’s learning six lines prediction as part of an orally transmitted tradition versus Ma Jianglong’s background in fengshui and systematic study of the Yijing as a text, but also factors that are harder to pin down, such as individual tendencies in thinking style, aesthetic and moral intuitions, ‘personality’ and so forth). These individual divergences themselves influence how understandings are transmitted – Xiaoping’s understanding of Eight Trigrams cosmology would undoubtedly differ had he been Ma Jianglong’s student instead of Master Tao’s, and Ma Jianglong’s publication of a book and online course means that his conceptions are presented to a different audience from that of Master Tao’s roadside practice. Precisely how

these conceptions are received and understood, meanwhile, also depends on the life histories of individual members of these audiences. These smaller-scale divergences can thus affect the larger-scale distribution of cosmological representations. ‘Zooming out’ again to long-term changes at the level of whole populations, the history of Eight Trigrams cosmology and correlative cosmology more widely is therefore better considered in terms of changing patterns of thought over time than in terms of the essential characteristics of ‘Chinese thought’ or ‘Chinese ontology’, and certainly not ‘the Chinese mind’, an analytical fiction as empirically ludicrous as it is orientalisising.

In summary, the premise of this chapter is that shifts in the content of cosmology (including systematic ontology) are aggregate tendencies in the kinds of ideas entertained by and transmitted between individuals under certain conditions (such as specific social situations) – in Dan Sperber’s (1996) terms, epidemiologies of representations. These shifts are the product of intuitive and reflective responses on the part of individuals to changes in the social environment, including kinship and political, military and religious practices and institutions, themselves shaped by individual responses in a feedback loop. They are also the product of economic conditions, understood broadly to include the social arrangements of economic life and the ecological affordances of geography, which likewise should be considered to impact political institutions, religious practices and kinship systems. Individual cognition is dynamically and mutually shaped by these influences, as well as by natural variation between individuals and the impact of individual life history on physiology and behaviour. The precise ways in which these influences interact are far from being comprehensively understood, but acknowledging their interconnectedness helps us to move away from a theoretical stance that retains unsupported assumptions about the causal priority of ‘culture’ (for which one might read deep ontology, discourse, power relations, ideology, etc.) or a false dichotomy between culture and nature, a point expanded on in Chapter 5. In discussing changing ideas in Warring States to Han China, what is being considered is therefore a process of cultural transmission between individuals, subject to dual process cognition, influenced dynamically by all the factors mentioned above. In this case, the conditions for homological conceptions of the cosmos became

plausible for a growing number of individuals in certain elite, literate strata of society, and such conceptions gained salience to the point that they came to underpin state ideology. This does not mean that the ideas concerned were always entertained by the individuals involved, much less that they comprehensively determined their decision-making, or that the people of China all gradually became homologists, even if they were increasingly affected by institutions whose development was influenced by homologist principles. The following section presents a brief account of key developments in Chinese cosmology up to the late Warring States and early Han periods.

From Four Quarters to Five Phases

Certain aspects of correlative cosmology can be traced back to the Shang period (c.1600–1046 BCE) and the concept of the ‘Four Quarters’ (四方 *sifang*), by which the Shang rulers conceptualised their state in relation to other polities. The Four Quarters system was associated with cardinal directions, and each Quarter was associated with a wind (Wang 2008: 29); the corollary of this system was the existence of a superior centre in the form of the Shang king, and his ritual connection to his ancestors as a bridge across the ontological divide between humanity and the Shang high god Di 帝. The subsequent Zhou dynasty transformed this system into a means of classifying the area over which the Mandate of Heaven (天命 *tianming*) extended, a concept used to justify their conquest of the Shang based on interpretations of astronomical observations, particularly of the clustering of the five visible planets (Pankenier 1995a, 1995b, 2015). The Zhou kings continued to act as a pivot between the ontologically separate realms of Heaven and Earth, ‘above’ and ‘below’ (上下 *shangxia*), communicating with ancestors who sat at the hand of the high god (Wang 2008: 71–72). As Michael Puett (2004: 54–79) convincingly argues, following the Zhou conquest of the Shang, and in spite of the doctrine of Heaven’s Mandate, ritual activity and belief remained predicated on an often agonistic, rather than harmonious, relationship between humans and deities, stemming from a fundamental discontinuity between humanity and the divine.

The year 771 BCE marked the end of the Western Zhou, forced from their capital and thereafter increasingly losing their authority over their vassal states. This shift in hegemony was accompanied by changes in cosmology, which was no longer based on the king's person as a conduit for ancestor worship but directly related to Heaven (tian) (Wang 2008: 76). The latter part of this period, that of the Warring States, saw the proliferation of diverse philosophical schools and the development of the foundations of something approaching the received correlative cosmological system. Early indications of this system are to be found among the figures whom Donald Harper (1999: 813) terms 'natural experts' – 'astrologers and almanac makers, diviners, physicians, musicians, and others' – later grouped together as fangshi (方士 'recipe gentleman') by Han scholars, rather than among philosophers such as Confucius, Mencius or Zhuangzi. The textualisation of this knowledge was crucial in granting magico-religious and naturalistic thinking 'a significance apart from religious belief and practice' and increasing influence over the intellectual landscape (ibid.: 817). The monopoly on cosmological knowledge had shifted away from the ruler to a rising class of literate specialists, upon whom rulers increasingly depended (Wang 2008: 78–79).

By the fourth century BCE antecedents of received correlative cosmology were already in evidence. Of particular importance to understanding correlative thinking in this period is the Zuo zhuan 《左傳》, a text dating from the late fourth century that purports to be a chronicle of the Spring and Autumn period immediately preceding the Warring States. Aihe Wang (2008: 82–84) notes that the work makes references to a 'field allocation' (分野 fenyue) predictive system, which drew astrological correlations with different polities and described shifts in political power. In a different context, the 'Offices of the Five Phases [Processes]' (五行之官 wuxing zhi guan) are mentioned, referring to Wood, Fire, Metal, Water and Earth (ibid.: 84). Wang points out that the Five Processes³ of Metal, Wood, Water, Fire and Earth were conceived as belonging to Earth (di). The Five Processes at this point lacked any conceptual link with qi, which instead provided the basis for a classification based on the Six Vapours (六氣 liuqi) of Heaven

(Graham 1986; Harper 1999: 863–64). Qi at this time was not considered a unifying substance, the Six Vapours rather constituting atmospheric influences which directly generated the Six Inclinations (六志 liuzhi) of the people, which could be modulated via correlated musical notes, flavours and colours (Graham 1986: 72). The Zuozhuan also contains notions of ‘Five Materials’ (五材 wucai) – Fire, Metal, Water, Wood and Earth – in a substantial rather than processual form, considered as Earthly resources, as well as the ‘Six Stores’ (六府 liufu), with the addition of grain; these, though, were not the primary correlates of colour, sound, flavour and so on (Graham 1986).

Over the course of the fourth century BCE, the idea of qi as the ‘basic stuff of human life and of other things in nature’ became increasingly established (Harper 1999: 861), though it had different meanings in different (including non-cosmological) contexts (Graham 1986: 71–72; Nivison 1999: 775–76). Yin and yang, while associated with qi, were similarly not yet fitted into an all-encompassing correlative framework (Graham 1986: 9; Harper 1999: 861). By the third century BCE, classification in sets of five had become frequent, but basic principles of such classifications were still not commonly recognised, being employed by different individuals to serve different purposes (Wang 2008: 90–91). Towards the end of this period, the Six Vapours system became subsumed within the pentadic classification, which like yinyang had by then become a means of classification based on types of qi (Harper 1999: 866). The key cosmological innovator of the final decades of the Warring States was Zou Yan 鄒衍, a man known only from secondary sources, who was active around 250 BCE. He is recorded by the Han historian Sima Qian 司馬遷 as developing the notion of Five Virtues (五德 wude) of Earth, Wood, Metal, Fire and Water, proceeding in a historical cycle (Harper 1999: 865; Nivison 1999: 810). Zou Yan abstracted ‘virtue’ or ‘power’ (德 de) from the Five Materials and their characteristic processes, allowing the Five Virtues to be considered as forms of qi (Graham 1986: 78; Harper 1999: 865), a theory restated in the compendium Lüshi Chunqiu 《呂氏春秋》 (Springs and Autumns of Master Lü, c.239 BCE), discussed below.

Throughout the subsequent Han dynasty, commonly recognised principles of correlative cosmology based on qi, yinyang and the Five Phases became increasingly consolidated, though as Puett (2004) points out, they remained the subject of ongoing debate. Michael Loewe (1986: 654–55; 2005: 6–16) broadly distinguishes between ‘four attitudes of mind’ observable in the received texts of the period: those focusing on the order of nature, in which humanity plays but a small part (a conception exemplified by the *Huainanzi* 《淮南子》, a work which draws extensively on correlative cosmology); those considering humanity to occupy a privileged position, as evinced by the ritual trappings of civilisation (here, Loewe includes the correlative cosmologist and imperial ideologue Dong Zhongshu 董仲舒); those focusing purely on the needs of government and strengthening the state; and those emphasising reasoned scepticism. Like Aihe Wang (2008), Loewe (1986: 655) sees the increasing consolidation of correlative cosmology as intimately tied to the political project of governing the Han empire, stemming from a need to impose intellectual and cultural uniformity as part of ruling all under Heaven. Nonetheless, it remained the case that even as the fundamental concepts of correlative cosmology were increasingly shared among elite groups, the specific understandings of these and their cosmological importance remained particular to individuals.

Types of Correlative Thinking

The nature of correlative cosmology has been the subject of intense debate in Western sinology, with important implications for anthropological concerns with systematic ontology and classification. In particular, sinologists have been divided over the issue of whether so-called ‘correlative thought’ constitutes an entirely distinct form of thinking from that historically predominant in the West. The case for fundamental difference is made perhaps most systematically by David Hall and Roger Ames (1995),⁴ drawing heavily on the approach of A.C. Graham (1989), whereas scholars such as Edward Slingerland (2011, 2018) concentrate on cross-cultural similarities. However, all agree that the two modes of thought contrasted – correlative and causal (or analogical and rational, etc.) – are universal human

capacities; the question is more properly concerned with the relative degree to which each mode was emphasised and developed in China and the West. This provides a context for considering a distinction between analogical and homological systematic ontologies in the context of early China.

Analogism as a systematic ontology (as found for instance in the Great Chain of Being) by definition makes use of correlative thinking, as does homologism in the case of contemporary Eight Trigrams cosmology. This already indicates that what counts as ‘correlative thinking’ may actually consist of more than one kind of intellectual enterprise at a certain level of reflection. In this section I argue that the distinction between these two types of correlative thinking arises from three variables. The first is the purpose of the correlative scheme in question, specifically whether it seeks to classify according to meaningful associations or based on perceived natural kinds, and the second is the degree of systematic reflection to which it is subjected – that is, the extent to which it constitutes a systematic ontology. The third variable is the scale of phenomena considered – is that scale cosmic, or is it confined to a particular domain, say living things? The first variable necessarily influences the other two – a correlative system that aims simply to order phenomena in an arrangement meaningful to ego need not make any explicit claims regarding what kinds of things exist. It does, however, implicitly presume the existence of certain kinds by virtue of arranging them in time and space. In this sense, linking, say, a kind of animal with a natural landform does not claim ontological affinity between those two elements, merely taxonomic affinity contingent on ego’s purpose – but it does presuppose the existence of ontological kinds brought together in arrangements that are themselves not necessarily ontologically or cosmologically relevant. Conversely, a correlative scheme that classifies according to perceived natural kinds by definition makes explicit claims about the kinds of things that exist and necessarily constitutes a systematic ontology, at least within the domain of phenomena considered.

Therefore, non-cosmological correlative taxonomies can be distinguished from correlative cosmologies that define systematic ontologies. The latter

may be either analogist, each taxon imposing relations on discontinuous singularities, or homologist, identifying members of each taxon based on ontologically common characteristics and subsuming all taxa into a greater ontologically continuous whole. Early Chinese texts provide examples of non-cosmological taxonomies and homologist systematic ontologies. They do not provide evidence for analogist systematic ontologies, but some texts, such as the ‘daybook’ almanacs (discussed below), indicate reflective ontological assumptions that rely on analogical⁵ correlations (they do not provide evidence that such correlations are based on a systematic theory of ontological discontinuity, or were used with any systematic ontology in mind). These three types are considered in turn below.

Descola (2013: 241–42) raises similar issues in his discussion of ‘prototypic’ and ‘contrastive’ modes of classification. Prototypic classifications group entities based on shared intrinsic properties, and Descola sees this as the dominant form of classification in both animist (continuous interiorities but discontinuous physicalities) and totemist modes of identification; members of a totemic class are thus ‘materializations of the same generative model’ (ibid.: 242). This is true of categories within homologism, as it is also of all entities at the scale of the homological cosmos (this is not true of totemism, which at the level of the cosmos defines each totemic class contrastively, by similar attributes; ibid.). Contrastive classifications rely on grouping entities based on attributes that contrast with the attributes of other classes. Following Descola (ibid.: 242–43), this form of classification characterises analogism and naturalism (discontinuous interiorities and continuous physicalities). The predominance granted to either prototypic or contrastive classification with reference to a particular mode of identification necessarily pertains to how that mode of identification delimits ontological classes; thus, naturalist humans as an ontological class are defined by possession of physicality and interiority, whereas animist humans instantiate a particular form of intentionality (ibid.: 241–44). As Descola points out (ibid.: 240–41), and as will become clear in the following discussion, all taxonomies use both forms of classification, depending on the particular relationships they seek to emphasise. However, in extreme forms of analogism classes do not correspond to ontological divisions, owing to the

fact that every entity that exists constitutes an ontological singularity, taxonomies being imposed for clarity.

In terms of the three possible forms of correlative taxonomy defined above, non-cosmological and analogist taxonomies rely on contrastive classification, the latter emphasising discontinuity at the level of the cosmos, and homologist taxonomies rely on prototypic classification, emphasising causal continuity at the level of the cosmos. However, as will be shown, contrastive and prototypic classifications may be combined in a single system by existing at different scales.

Non-Cosmological Correlative Taxonomy

The first form of correlative taxonomy can be illustrated with reference to a famous example cited by Descola (2013: 242–43): the ‘Hong Fan’ chapter of the Shang Shu. This text was extremely influential on Han dynasty developments of correlative cosmology, and is ‘quoted in all extant philosophical compendia’ of the period (Nylan 1992: 45), including the Huainanzi and Chunqiu Fanlu (《春秋繁露》 Luxuriant Dew of the Spring and Autumn Annals). The dating of this text is contentious, not least because the possibility exists that different sections of it date from different periods. Nylan (ibid.: 103–46) offers an extensive discussion of contending hypotheses before finally dating the ‘Hong Fan’ to the late Warring States period, and Lloyd (2014: 23, note 30) likewise locates it between the mid-fourth and early third centuries BCE. Following them, the ‘Hong Fan’ is roughly contemporaneous with other correlative accounts, but significantly predates the unambiguously qi-based Five Phases systems of the Han period. The ‘Hong Fan’ presents a cosmologically oriented guide to rulership that draws on the ‘Five Processes’, one in which, as Nylan (1992: 118–19) argues, the use of the term wuxing 五行 does not meet the criteria necessary to unambiguously characterise them as Five Phases of cosmic qi. The relevant sections of the text proceed as follows (translations based on ibid.: 15–16, and Legge, in ibid.: 156–58):

一、五行：一曰水，二曰火，三曰木，四曰金，五曰土。水曰潤下，火曰炎上，木曰曲直，金曰從革，土爰 [sic] 稼穡。⁶

First, of the Five Processes: the first is Water, the second Fire, the third Wood, the fourth Metal, the fifth Earth. Water is characterised by soaking and descending, Fire is characterised by blazing and ascending, Wood is characterised by curving and straightening, Metal is characterised by malleability and changeability, Earth is characterised by seeding and harvesting.

These processes are then linked to the flavours that they cause:

潤下作鹹，炎上作苦，曲直作酸，從革作辛，稼穡作甘。⁷

Soaking and descending make for saltiness, blazing and ascending make for bitterness, curving and straightening make for sourness, malleability and changeability make for acidity, seeding and harvesting make for sweetness.

A number of points can be made about the taxonomy presented here. First, each of the processes – Water, Fire, Wood, Metal and Earth – is ‘characterised’ (曰 yue, following Nylan’s translation) in a certain way; that is, each is attributed certain kinds of process, and these contrast with those attributed to the others. However, at the same time, the Five Processes are associated with flavours, but the relationship posited between Process and flavour is not one of analogy but of causation; the process of soaking and descending ‘make for’ (作 zuo) saltiness. As such, within the narrow taxonomy of the section quoted above, we find both contrastive classification of processes and their corresponding flavours as they are

defined against other processes and flavours, but also prototypic classifications of particular flavours as causal manifestations of specific processes. This is illustrated below in Figure 4.1.

As such, the ‘Hong Fan’ presents a taxonomy similar in structure to that of Descola’s totemism – the phenomena grouped together with Processes in Figure 4.1 are manifestations of a common principle by virtue of their explicit causal relationships, whereas at the level of the whole system of Five Processes, each vertical class is defined contrastively based on attributes. It is significant that even in this paradigmatic example of Chinese ‘correlative thinking’, causal relations within categories are explicit – ‘saltiness’, for example, is not analogically associated with soaking and descending but is the result of those processes. Notably absent from this correlative taxonomy is a notion that the Five Processes are linked to one another in a broader process of transformation (in contrast, say, with Explaining the Trigrams, and with the dynastic sequence presented in the Lüshi Chunqiu, discussed below), and any explicit conception of these processes as attending to phenomena on a cosmic scale. Although the order in which the Processes are presented comprises what in the Han was defined as the ‘cosmogonic order’ (生序 shengxu) (Needham 1956: 253–55; Nylan 1992: 15, note 4), the earliest commentary, dating from the early Han, describes the Processes here as relating to the ‘resources of the empire’ (ibid.: 15) – akin to the Five Materials mentioned above. The best we can do, if we wish to remain true to what the text makes explicit, is to consider the ‘Hong Fan’ to present a non-cosmological correlative taxonomy, which was only later reread in terms of the explicitly cosmological Five Phases. The ‘Hong Fan’ does, though, betray reflective ontological assumptions on the part of its author(s) insofar as it posits Water, Fire, Wood, Metal and Earth as actual kinds of things that have specific effects. In the absence of any cosmological elaboration,⁸ we cannot make any assumptions concerning systematic ontology beyond the fact that the Five Processes are considered distinct within the domain under consideration.

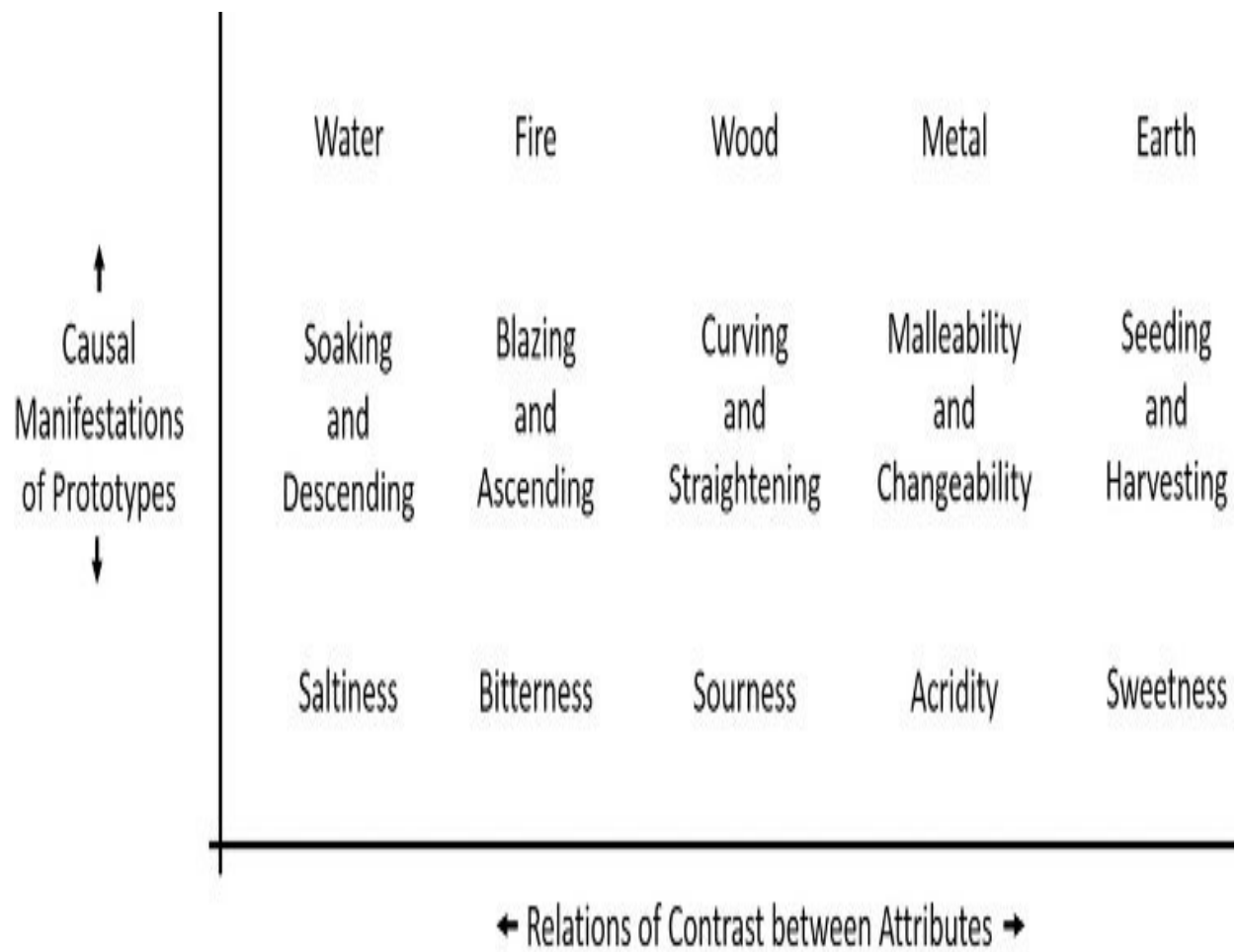


Figure 4.1 Non-cosmological correlative taxonomy in the ‘Hong Fan’. © William Matthews.

Homologist Correlative Cosmology

To illustrate the nature of homological correlative taxonomies, we must turn to later periods. An example of this type is found in the *Lüshi Chunqiu*, a compendium dating to approximately 239 BCE, commissioned of various authors by Lü Buwei, prime minister of the Qin state, as a comprehensive philosophical and cosmological foundation for a universal empire (Knoblock and Riegel 2000). This work, while not yet evincing an unambiguous

synthesis of qi, yinyang and the Five Phases, nonetheless presents a highly elaborated correlative cosmology based on a homologist systematic ontology, which further demonstrates the importance of scale in typifying forms of correlative taxonomy. In a famous passage, the ‘Five Virtues’ (wude), elsewhere attributed to Zou Yan, are fully elaborated in what would become known as the sequence of ‘mutual conquest’ (xiangke) of the Five Phases (Graham 1986: 80–81; Harper 1999: 865), as still used today.

The passage ‘Ying Tong’ 《應同》 (‘Resonating with the Identical’, Lüshi Chunqiu section 13/2.1), describes the relationship between changing Virtues and dynastic succession, cosmologically justifying the Qin state’s right to rule along with the actions the Qin ruler should adopt. It opens by stating that Heaven (tian) manifests auspicious signs, visible to the people, heralding the rise of a new ruler. A succession of such omens, and the corresponding rulers, is provided from the Yellow Emperor (黃帝 Huangdi) to King Wen of the Zhou, each corresponding to a Phase of qi. For example, in the time of King Wen, a red crow carrying a cinnabar document was sighted on the Zhou altars, prompting him to observe the ascendance of Fire and act accordingly:

文王曰「火氣勝」，火氣勝，故其色尚赤，其事則火。⁹

King Wen proclaimed, ‘The ethers of Fire are in ascendance’. Since the ethers of Fire were ascendant he honored the color vermilion and modeled his affairs on Fire. (Knoblock and Riegel 2000: 283)

The corresponding rulers, colours and omens for the full sequence are summarised in Figure 4.2. Following the Zhou, it is explained that the ascendance of Water is sure to follow Fire, and that therefore the current ruler (of the Qin state) should ‘honor the colour black and model his affairs on Water’ (其色尚黑，其事則水; translation from Knoblock and Riegel

2000: 283). The text makes clear that it is the responsibility of the ruler to take action to make the most of prevailing cosmic conditions:

水氣至而不知，數備，將徙于土。¹⁰

If the ethers of Water culminate and no one grasps that fact, the period when it is effective will come to an end, and the cycle will shift to Earth. (Ibid.: 283)

Following this, the succession of rulers in line with the Five Phases is contextualised in terms of broader cosmological principles. Using examples of the resonance of harmonic musical notes, the flowing nature of water, the affinity of fire for dryness and the correspondence of clouds to the landscapes over which they are found, the text explains:

類固相召，氣同則合...無不皆類其所生以示人。¹¹

Things belonging to the same category naturally attract each other; things that share the same ethers naturally join together . . . Without exception, everything manifests signs that show men it shares the same category with that which creates it. (adapted from ibid.: 283–84)

Presented here is a far more systematic account of Earth, Wood, Metal, Fire and Water as forms of qi, emanating from Heaven and proceeding in a fixed cycle of ascendance, along with their correlates. The passage also provides an explanation for correlation based on shared qi, identified with musical harmonisation – that is, the correlates of each type of qi are classified together first and foremost not because they share attributes but because they

instantiate a prototype. Once again, this stems from the explicitly causal relations between the members of each class. However, for the purposes of illustrating the necessary actions of the next would-be sovereign, the relations presented between classes are contrastive. Thus, the actions of Qin should be defined by a set of attributes corresponding to Water, in contrast to the Fire attributes of the Zhou.

In section 13/2.1, an implicit division exists between Heaven, Earth and Humanity. When a given form of qi is in ascendance, Heaven causes certain things to appear on Earth. However, while this has historically heralded the arrival of a new emperor, later in the text it is implied that this results from the ability of humans to correctly identify Heavenly omens as indicators of changes in ascendant qi. So, while portents in the realm of Earth are a direct result of Heaven's response to ascending qi, this is not so of appropriate human action. The would-be sovereign has a limited time frame in which to harmonise with the state of the cosmos by behaving in a manner appropriate to the ascendant form of qi, by modelling his 'affairs' (事 shi) on it and adopting an appropriate colour. Within the context of the passage, this amounts to an analogical response via the manipulation of attributes. These relations are illustrated below in Figure 4.2.

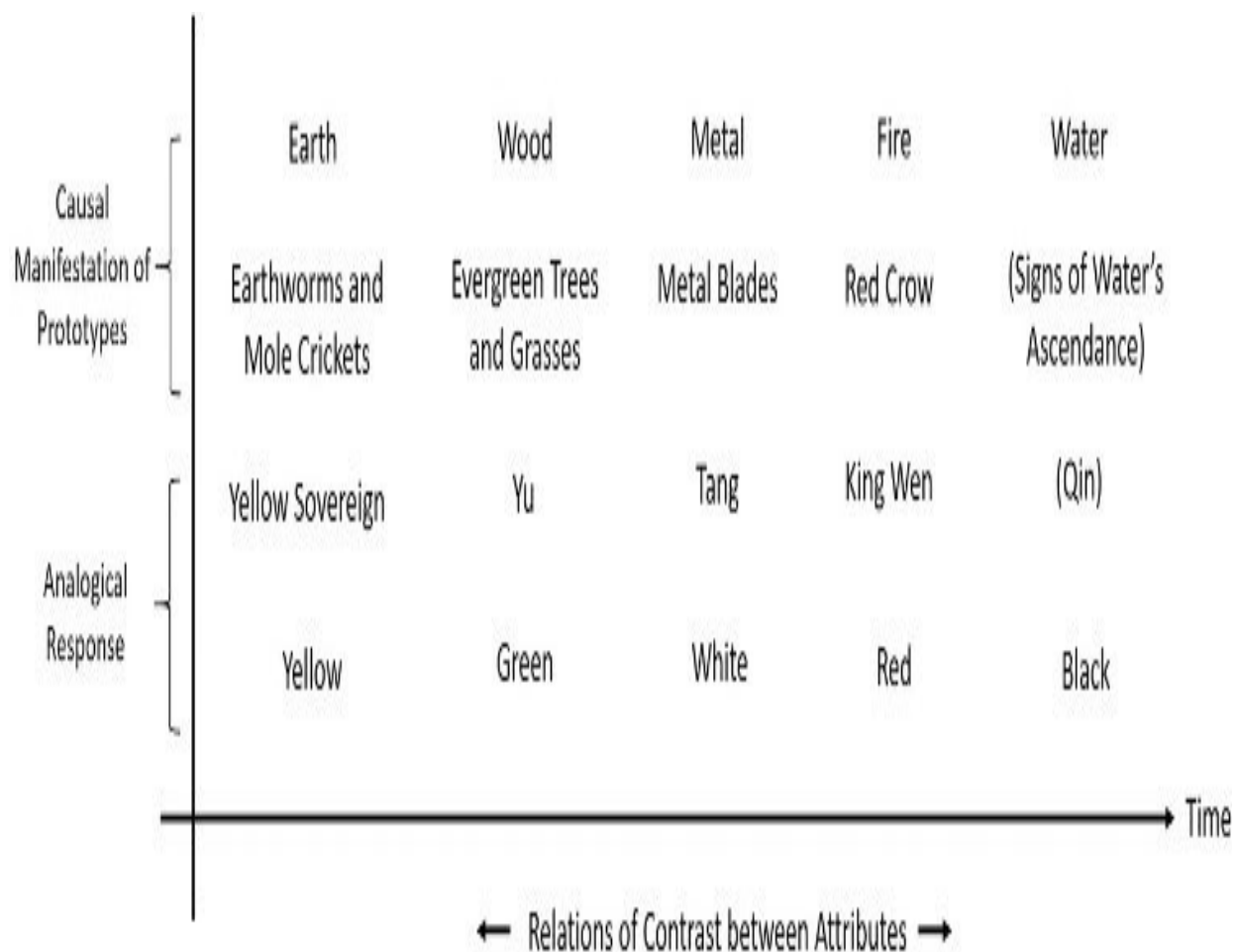


Figure 4.2 Correlations in Lüshi Chunqiu 13/2.1. © William Matthews.

Within the taxonomy as it appears in section 13/2.1, discontinuities exist between the members of each vertical class and between classes. That is, while the set (Fire + Red Crow) is prototypic, the set (Fire + Red Crow, King Wen, Red) appears attributive. At first glance this instance of correlation appears analogical, as the full vertical classes are contrastive and bring together apparently disparate phenomena. Moreover, humans have a choice as to whether they harmonise with the cosmos. If we also consider section 13/1, which immediately precedes the section above, we find an account of the beginning of Heaven and Earth (13/1.1), which, initially separate, came together in harmony, amounting to ‘the grand principle of all creation’ (生之

大經 sheng zhi da jing; Knoblock and Riegel 2000: 278). However, if we look further we find that sections 1–12 comprise almanacs identifying the correlates of each month of the year and the very real consequences of failing to act on them. Thus, despite the separation between the realms of Heaven and Humanity, they are causally connected – human action is able to foster a more or less hospitable environment for ascendant qi to manifest its natural effects. Additionally, as Puett (2004: 172–81) points out, elsewhere in the Lüshi Chunqiu (e.g. 5/2.1) we find arguments that humans fulfil the cosmological function of completing that which has been initiated by Heaven, ultimately stemming from a single cosmic origin, the Great One (太一 taiyi). From the Great One are produced yin and yang and Earth and Heaven, and it is by drawing on this principle that humans are able to regulate the cosmos, for example via music (Puett 2004: 174–75). So while the correlative taxonomy of human responses in Lüshi Chunqiu 13/2.1 appears analogical, viewed from the scale of the cosmos it is in fact homological. The apparently analogical response of humanity to Heaven in fact constitutes a means by which the would-be sovereign manifests the prototype of the ascendant qi – something he is able to do thanks to a common ontological principle. Moreover, the distinctiveness of the five forms of qi is revealed to be non-ontological in character (they are variations of a single ontological class). This homological correlative cosmology is shown in Figure 4.3. Thus, in spite of lacking evidence of a fully integrated theory of qi, yinyang, the Five Phases and the Eight Trigrams, the correlative cosmology of the Lüshi Chunqiu can be considered an example of homologism.

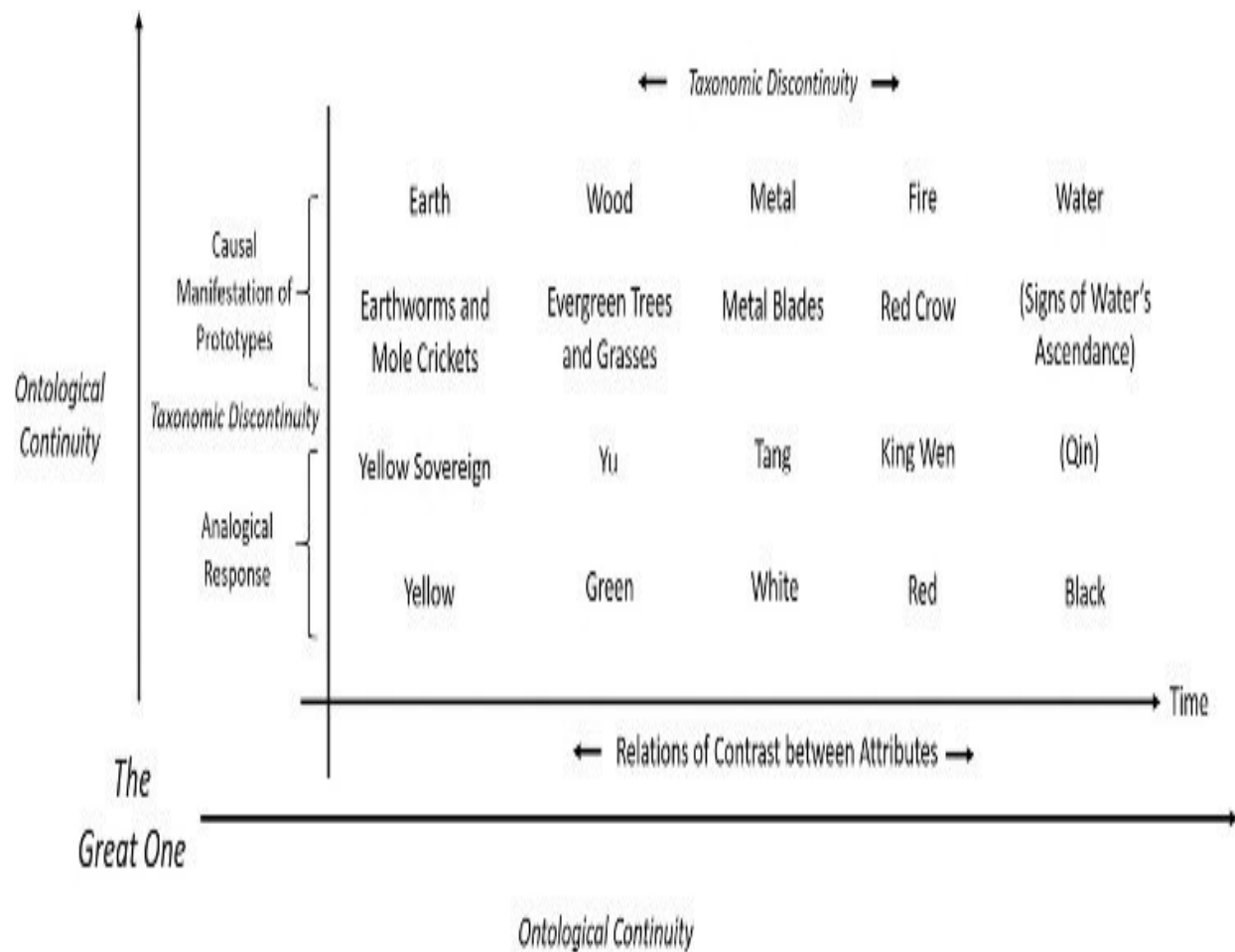


Figure 4.3 Homological correlative cosmology in the Lüshi Chunqiu. © William Matthews.

Analogical Correlative Taxonomy

The question then arises of what an analogist correlative cosmology might look like. Unambiguous diagnosis of such a cosmology would require evidence of an explicit rejection of a monogenetic cosmos such that, unlike the homologist correlative cosmology just described, all of the elements in a contrastive taxonomy cannot be subsumed into a single overarching category. To my knowledge, no such thing exists within the body of received

texts describing ‘correlative cosmologies’ from early China. As such, for an example of this kind we must turn away from the realm of systematic ontology to that of reflective ontological assumptions made in other contexts, as this is the only form from which such a conclusion can be sensibly, if provisionally, drawn. The following extract comes from a ‘daybook’ (日書 rishu) or almanac excavated from the tombs at Shuihudi 睡虎地, dated to 217 BCE (Shuihudi Rishu A):

金勝木，火勝金，水勝火，土勝水，木勝土。

東方木，南方火，西方金，北方水，中央土。¹²

Metal conquers Wood, Fire conquers Metal, Water conquers Fire, Earth conquers Water, Wood conquers Earth.

Eastern fang [quarter or direction] is Wood, Southern fang is Fire, Western fang is Metal, the Centre is Earth.

(Chinese from Shuihudi Qinmu zhujian zhengli xiaozu 睡虎地秦墓竹簡整理小組 1990: 223; English translation adapted from Wang 2008: 116)¹³

The almanac comes from the tomb of a Qin administrator, and does not appear to be intended as a systematic cosmological treatise or as being for use by experts. What the text does is simply correlate Wood, Fire, Metal, Water and Earth with the East, South, West, North and Centre respectively. However, unlike the ‘Hong Fan’, this text does suggest that the wuxing are to be taken as cosmologically applicable principles, given that they are presented in the same order of ascendancy as that found in Lǔshì Chunqiu 13/2.1. The daybooks are primarily concerned with day-to-day affairs rather than cosmological theorising; Harper (1997: 245) provides a detailed description of some of their contents, including a diagram based on the prognostication of character via the correlation of birth date with body parts, as well as a demonological treatise concerning, for example, the probability

of a yang demon stealing the qi in an otherwise inexplicably ineffectual stove and the resolving of such a quandary via the burning of pig faeces.

A ‘deep ontology’ approach might thus interpret the daybook as presuming that Wood, Fire, Metal, Water and Earth are taxonomic means of relating ontologically distinct phenomena – in this case cardinal directions – based entirely on attributes. In this view, Wood, Fire and so on do not denote real categories (as they have in the above examples) but serve only to link myriad singularities based on superficial similarity. Similar conclusions could also be drawn if Wood, Fire, Metal, Water and Earth were interpreted as referring to real-world classes, suggesting something akin to totemism. However, such conclusions are unjustified given the absence of evidence for these concepts being used as part of an overall account of what exists. In the absence of further elaboration, while the correlates here can be taken as an example of reflective ontological assumptions (i.e. of distinct categories of phenomena), they do not provide evidence of a systematic ontology linking these into a comprehensive theory of what kinds of things exist. Clearly, these categories are cosmological in the sense that they map different phenomena and were instrumentally useful in dealing with certain kinds of phenomena (such as demonic qi theft). That is, they present useful principles for thinking about and acting on certain day-to-day occurrences.

There is no reason to suppose that the users of the manuals subscribed to a systematic ontological account predicated on ultimate principles of continuity or discontinuity – such an account is not necessary for making use of the daybook’s contents (any more than systematic knowledge of plant and animal evolution, or caring at all about such knowledge, is necessary to follow a recipe). Even if there were good reason to suppose that ‘deep ontological’ principles were at work, the evidence could be interpreted either as analogist or totemist, and what is more, this would be true of any ethnographic or historical example of classification, whether ontological or not (a car manual, a recipe, an audit report, a census, etc.), rendering these analytical categories meaningless. Hence the importance of considering the purpose of taxonomic systems before using them to draw analytical

conclusions about how people think and behave. The more parsimonious position is to first acknowledge that there is no good reason to suppose that ‘deep’ ontological principles are at work in guiding perception and action, and second to assume that most taxonomies are not ontological unless they make specific, explicit claims about fundamental types of beings that cannot be subsumed into more basic categories.

Natural Kinds and Taxonomic Scale

The typology presented above has demonstrated a need to differentiate between divisions that are purely taxonomic, and those that are systematically ontological. This may be refined further to distinguish between 1) taxonomies with no basis in natural kinds, 2) taxonomies that reflect natural but not ontological kinds and 3) taxonomies that reflect ontological kinds. Analogical correlative taxonomy in the sense described in the previous section can involve taxonomies of type 1), by virtue of the fact that the classification is primarily concerned with practical use or meaning. Similarly, in an analogist systematic ontology, because there are as many natural ontological kinds as there are singularities, any classification brings together unrelated phenomena. Therefore, an analogist correlative cosmology would be more likely to take the form of an ontologically contrastive version of Figure 4.2, in which ontological continuity would exist within narrowly defined classes – this would amount to a taxonomy that reflects ontological kinds – type 3) (this is true of totemist systematic ontology and even for a paradigmatic case like the Great Chain of Being). As it stands, in the context of homologist correlative cosmology, Figure 4.2 represents a taxonomy that reflects natural but not ontological kinds, or type 2) – the five kinds of qi and their correlates comprise natural categories, but are all subsumed within the continuous ontological whole of the Great One (Figure 4.3), itself an example of type 3).

In a homologist correlative cosmology, while correlations are explicable based on continuity, depending on one’s purposes emphasis may be placed

on discontinuities at a less fundamental scale. That is, there is nothing preventing a homologist systematic ontology from creating analogical taxonomies based on natural kinds at a certain sub-cosmic scale – and of course, at the same time, there is nothing preventing it from creating taxonomies with no ‘natural’ basis whatsoever (consider again the relationship between analogy and homology in evolutionary and developmental biology). Likewise, nothing prevents an analogist systematic ontology from creating genuinely homological taxonomies at a less fundamental, non-ontological scale – something also implicit in the non-cosmological correlative taxonomy of the ‘Hong Fan’, in which distinct Processes create distinct flavours.

In considering natural kinds and scale, we come to a problem at the heart of discussions of correlative cosmology, which is the reconciliation of correlative taxa with more obvious ‘natural’ kinds such as animals or landforms. Indeed, correlative cosmology is of interest partly because it groups together entities from such apparently disparate kinds as animals, colours and directions, the logic of which is not always readily apparent. It can first be pointed out that such a problem does not necessarily require rationalisation on the level of reflective ontological assumptions – the users of the daybooks, like Cancan with his fengshui dabbling, would not have needed to consider this in order to practically apply correlative principles.

The Lüshi Chunqiu example illustrates a homological conception of correlative categories that appear analogical while also representing instantiations of common cosmic principles (see also Matthews 2018). The text clearly differentiates between the Heavenly, Earthly and Human realms – the Great One manifests in distinct forms, constituting natural kinds within an overarching ontological category, and these configurations manifest themselves differently, but coherently, at different scales. Considering the thought and practice of contemporary diviners such as Master Tao and Ma Jianglong, we find a clear conception of cosmic principles manifesting on successive levels of encompassment, such that a given phenomenon, be it a hexagram class or a fengshui fish tank, contains within it qi configured

according to all Five Phases, the relevance of each of which is brought out with respect to the scale under consideration. However, the objection may still stand that the cosmos so considered only makes sense holistically (Ziporyn 2012); that is, it cannot be reduced to a single unifying principle, but rather relies on the irreducible totality of all its elements acting in concert, a point examined extensively in the next chapter. This objection does not stand up to the contemporary examples provided in previous chapters, in which diviners routinely reduce human and other phenomena to the fundamental basis of qi, including in dialogue with physics; but what about the historical examples at the forefront of debates on correlative cosmology?

The Question of Cosmogenesis

Lévi-Strauss (1969: 161) touched briefly on yinyang classification as ‘the most systematic application’ of a general principle of creating integrating wholes, like the dao, from oppositional categories; his general structuralist approach enjoys frequent discussion in the sinological literature, and was particularly influential on the approach of A.C. Graham (1986, 1989). Puett (2004: 1–29) provides an excellent overview of some of these debates, and though he does not use the term ‘ontology’, his arguments concerning the relationship between humans and spirits and the role of cosmogony speak directly to the questions raised in the foregoing discussion.¹⁴

On the subject of integrating wholes through opposition, Descola (2013: 302) suggests that analogist modes of identification may integrate themselves to the point that they develop hypostasised concepts of unity (he cites the dao; had he selected qi here, his conclusions may have been different); however, he characterises such concepts as hard to pin down, the true mode of identification remaining predicated on ontological discontinuities. That is, cosmic unity in this conception is a function of all singularities and their various oppositions taken as a whole rather than being based on some underlying or intrinsic organisational principle – a

constructed coherence rather than a constructing one. Puett (2004: Chapter 4) similarly argues that monist correlative cosmology was a means of self-divinisation based on a presumption of discontinuity, designed to critique claims of a separate spirit-realm with power over nature by bringing this realm within the purview of human knowledge (a critique which must assume discontinuity as its starting point, continuity being the end goal). Puett's argument raises two issues. These are the priority granted to reactive explanations (in which particular texts are treated as political responses to prevailing modes of ritual conduct), and the relationship between assumptions of discontinuity on a ritual and cosmogonic level. Dealing with these two issues is central not only to the question of the historical development of correlative cosmology, but also to the questions thrown up by the cosmologies of contemporary diviners and the relationship between cosmology and ontology in general.

Following Marshall Sahlins's arguments concerning continuity and discontinuity in Polynesian cosmology, Puett (2004: 160) argues that in the early Chinese context 'a correlative claim of continuity between humanity and nature was designed, and continues to function, only in opposition to an opposing claim of discontinuity'. Puett similarly argues that monogenetic correlative cosmology is predicated on continuity. However, he considers it a reaction to opposing claims, specifically those concerning the necessity of sacrifice and divination in communicating with spirits, and thus amounting to finding means of getting around a real underlying discontinuity. Such reactions deliberately shifted intimacy with the divine to within reach of humanity as embodied by the sage, a situation quite unlike that which prevailed during the Shang and Western Zhou periods. Some thinkers did this by positing a common substance, *qi*, which could be progressively refined via self-cultivation until one's *qi* was like that of a spirit (神 *shen*), also composed of *qi* (an example of ontological monism), as in the 'Xinshu' 心術 ('Arts of the Heart-mind') and 'Neiye' 內業 ('Inner Cultivation') chapters of the *Guanzi* 《管子》 (Puett 2004: 170–12), a wide-ranging politico-philosophical text with sections dating from perhaps the fifth century BCE to the early Han (Rickett 1993: 244). Other authors suggested a monist cosmogony, as in the *Taiyi Sheng Shui* 《太一生水》 (The Great One Gave Birth to Water) manuscript from the Guodian tombs (late Warring

States), an understanding of which allows the sage to operate effectively in the world by exploiting cosmic forces, to which the spirits are reduced (Puett 2004: 160–64); this is similar to the account of the *Lüshi Chunqiu* as described above. The *Yijing*'s Appended Phrases similarly suggests that the sage may operate effectively by attuning himself with cosmic forces via divination according to the hexagrams, themselves derived directly from sagely observations of the world (see Puett 2004: 188–96). As Puett points out, divination here ceases to be an act of communication with and coercion of the divine, becoming instead a means of attaining knowledge of cosmic processes. In all of these cases, the cosmos as a whole is primarily knowable via its reduction to something more fundamental – *qi*, the 'Great One' or the hexagrams – rather than via the holistic consideration of myriad irreducible elements (though as discussed in the next chapter, the emphasis on reduction does not exclude holistic consideration).

All of these examples, Puett acknowledges, suggest monism and continuity, but for him this indicates a deliberate imposition on an assumption of discontinuity. Indeed, historically they can be understood as reactions to prior assumptions of separation between humanity and the spirits, and demonstrate shifting attitudes in relation to similar contemporaneous beliefs and practices; as Henderson (1984: 24) argues, the concept of a cosmos unified by *qi* was retrospectively applied to notions of resonance. However, Puett's argument that 'in all these practices, monogenesis is the goal, not an assumption' (2004: 199) requires qualification. Undoubtedly, the goal of many of the authors concerned was at least in part to promote the acceptance of their ideas, and insofar as this was the case, a wider acceptance of monogenesis was the goal. However, while these authors may well have begun their intellectual endeavours with assumptions of discontinuity and posited monogenesis as an alternative, once they had done this their reflective ontological assumptions had shifted considerably. The formulation, elaboration and dissemination of cosmogonic theories would require an inordinate investment of time and effort for the sole purpose of developing a 'rhetoric of critique' (Puett 2004: 200); it suggests a genuine intellectual dissatisfaction with the premise of ontological discontinuity on the part of the author, who may well have presented an alternative at least in part because he took it to be a better account of the cosmos. From that point

on, the starting assumption of such an author in subsequent systematic cosmological endeavours would have been monogenesis, unless he could be convinced otherwise.

Divination from Divine Communication to Human Prediction

The oracle bone texts (jiaguwen), which provide some evidence of the beliefs and concerns of the Shang dynasty kings, hint at a cosmology based on the high god Di, considered ‘above’ the human world and capable of commanding natural phenomena, particularly rain, as well as of destroying dynasties, much like the personified Tian (‘Heaven’) of the subsequent Zhou dynasty (Keightley 1999: 252). Di headed a pantheon of nature powers, former lords and ancestors. The ancestors, to whom divinations were directed, were conceived as retaining very human concerns. Shang divination via scapulimancy and plastronomy appears to have been conceived as a form of communication with them, ancestors’ responses providing ‘both basis and justification’ for the actions of the king (Chang 1980: 202), who, as the figure closest to the ancestors, would speak the prognostication (Field 2000). Chang (1980: 202) groups Shang divinations into four main types, concerning further ritual actions, the king’s fortune during a given period, the potential outcome of an action and the interpretation of independent events such as dreams or natural phenomena; Keightley (1997: 30–41) provides a more detailed breakdown of divinatory questions.

While we can know little beyond the divinatory records, the types of divination documented concern the outcomes of actions, such as military expeditions and hunts, alongside questions concerning the interpretation of dreams and the appropriateness of ritual action, as well as the fortune of the king. In asking the question ‘What did the Shang diviner think he was doing?’, Keightley (1988: 367) suggests that oracle bone divination charges framed as two alternative outcomes ‘may be understood as spells applied to the future’ (ibid.: 372), the inscription of a charge on the bone marking the

future itself via analogical magic. In particular, he argues, the presence of negative, unpaired charges, such as ‘there will be no disaster’, suggests that these divinations functioned as attempts to avoid calamity rather than to discover what would actually happen. Paired charges, meanwhile, tended to abbreviate the negative outcome and accentuate the positive outcome. Where ‘display inscriptions’ concerning the accuracy of prognostications are found, they invariably confirm the predictions, reinforcing the ‘passive infallibility’ of the royal diviner (ibid.: 373). While the inscription of the charges constituted a magical act, this was tempered by a need for them to accord with the dualistic balance of reality, the act of divination yielding information on the particular balance at a given moment. This introduced an ambiguity – the balance may be favourable, but the possibility of it swinging back was always present. Keightley (ibid.: 377–78) argues that the binaries of Shang metaphysics do not permit a complementary union in the manner of sky/earth or red/white – they consist in bifurcations such as rain/not rain or curse/not curse, explicit and dialectic rather than mythical in character (indeed, Keightley compares them to Newton’s third law of motion).

Wang (2012: 444–45), following Chen Mengjia, argues that the Shang pantheon of Di and celestial deities, nature powers or terrestrial deities, and human spirits indicates a systematic separation that was inherited by the succeeding Western Zhou as a triad of heaven, earth and human spirits. The Zhou supreme god Tian, identified with Di following the conquest of the Shang, ‘had a decisive effect on human affairs, including the succession of political authority, length of life, and good or bad fortune’ (ibid.: 446). Puett (2004) argues that the Western Zhou continued to worship the high god in a manner similar to the Shang, via ritual attempts to make him work according to a human-imposed order. Indeed, the evidence from Shang divination and cosmology may hint at an analogist systematic ontology: divination predicated on communication with a divine being rather than calculatory principles, a discreet supernatural hierarchy of nature powers and ancestors headed by a high god, and a binary view of the world based on logical oppositions. Puett’s (ibid.: 44–54) analysis of the Shang pantheon suggests a hierarchy in which humans were forced to influence immediate ancestors, who in turn could influence higher ancestors (who had been dead for longer), who in turn could influence Di, who in Puett’s reading was not an

ancestor at all (see also Wang 2008: 39). Puett goes on to argue that far from being coterminous with humanity, the Shang gods and spirits were entirely other, and had to be transformed via ritual such that they could be incorporated into a human hierarchy. Likewise, Wang (2008: 46) argues that the connection between Heaven and Earth required constant establishment through ritual.

The development of something much closer to contemporary Eight Trigrams prediction can be attributed to the development of homological correlative cosmology, through its union of monist cosmogony and correlative taxonomy. This became particularly evident during the Han dynasty, during which homological correlative cosmology became a dominant expert view promoted by the state. This can be seen, for example, in the writings attributed to scholar-official Dong Zhongshu, who married correlative principles with Confucian morals, arguing that the sage who understands the laws of yin and yang as forms of qi may manipulate them in order to effect change (Puett 2004: 290–91). Dong Zhongshu's cosmos is thus dynamic, legislative (*sensu* Valeri 2014) and rooted in qi-monism – thus, unambiguously homologist. The notion of a monogenetic cosmos raises the logical possibility of being able to manipulate that cosmos based on an understanding of its unifying principles as described in the previous section. It follows that the behaviour of such a cosmos can be predicted based on this knowledge. The possibility is thus raised of cosmically informed methods of prediction that no longer require communication with ancestors, spirits or gods in order to yield prognostications, and thus remove the theoretical risk of deception by beings with privileged access to knowledge (Matthews 2021b).

Divination in the Han period had become a widespread practice of the educated classes and was a pervasive feature of state practice, though differences existed between its use by officials and by laypeople (Kalinowski 2010). Since the sixth century BCE the text of the *Zhouyi* had been used as 'a source of wisdom in its own right' as well as simply a divination manual (Loewe 2005: 73). The *Yijing* was canonised as one of the

‘Five Classics’ officially endorsed by the Han state in 136 BCE, beginning an ongoing series of commentaries and interpretations of it as a Classic. These included efforts to fully integrate the hexagrams and trigrams, along with the principles of the Appended Phrases, with the notion of universal qi and the Five Phases. One such effort was that of Jing Fang the Younger,¹⁵ who was instrumental in the development of the cosmological prediction system that became Eight Trigrams prediction. The only surviving work attributed to him of a reputed thirteen Yijing-related texts (Smith 2008: 67) is the Jing Shi Yizhuan 《京氏易傳》 (Jing Fang’s Commentary on the Changes).¹⁶ Jing Fang is credited with the development of Attached Stem Divination and the Eight Palaces classification of hexagrams, both of which remain at the core of contemporary six lines prediction as practised by Master Tao and his students; Jing Fang is also credited with the discovery of ‘mutual hexagrams’ (hugua) (Rutt 2002: 97) as used by Ma Jianglong.

‘Attached Stem’ originally referred to the correlation of the Eight Trigrams with the Ten Heavenly Stems, resulting in the necessity of granting Qian and Kun two Stems each in order to make the two sets fit (Henderson 1984: 14), Qian and Kun then as now being considered pre-eminent among the trigrams as extreme yang and extreme yin. Jing Fang’s further contribution was to incorporate the Five Phases and Earthly Branches, massively expanding the explanatory potential of the hexagrams and, for certain cosmologists, dispensing with the need to refer directly to the line statements of the Zhouyi.¹⁷ As Nylan (2001: 236) documents, Jing Fang attempted to correlate the lines of the hexagrams ($6 \times 64 = 384$) with the days of the year in order to assess systems of cosmic change, including astronomy, mathematics and music, building on the system developed by Meng Xi (Smith 2008: 62–66). This was accomplished by using four Standard Hexagrams to mark the solstices and equinoxes, leaving the remaining three hundred and sixty lines to describe the changes in qi over the approximately three hundred and sixty days of the year (ibid.; see also Henderson 1984: 14).¹⁸ He was also known for coordinating weather patterns with the hexagrams (Loewe 2008: 204). The result of these developments was an integrated system that served both divinatory and wider explanatory purposes (Smith 2008: 67). As Loewe (2005: 75–76) argues, by the time of these cosmological developments, ‘the whole system of divination by [means of the hexagrams] had undergone a

change of purpose', divinations now yielding not simply 'yes' or 'no' answers but indicating the situation of the cosmos and its potential for auspicious action. The successful integration of the hexagrams with qi-based Five Phases and yinyang cosmology enabled prediction via the classification of phenomena into 'sixty-four known and identifiable types' (ibid.: 76).

This level of cosmological integration meant that, as for Eight Trigrams prediction today, divination produced an index of cosmic conditions, directly interpretable by the diviner. Once divination had become a fully cosmological act – a discipline rooted in the same foundations as the changes of qi as manifest in weather patterns and musical theory – its mystical aspects shifted from the unknowable to the knowable. The act of divination had become an act of cosmological diagnosis, in full accordance with the laws of transformation of qi, and therefore an effective means of yielding accurate information about the world and explaining human situations. This is not to say that with the Han synthesis and the work of Jing Fang and others, the evolution of correlative cosmology and its divinatory applications somehow stopped; over time, these methods were further developed, including by others in the Han (Henderson 1984: 14–16) and later – and they continue to be developed by diviners today. Nonetheless, during the Han dynasty, the idea of a monist cosmos explicable via dynamic systems of correspondence was established in a form that more or less resembles that in use today in terms of its systematic ontological premises.

Notes

1. François Jullien (e.g. 1995, 2000) presents perhaps the most extreme example.
2. The same error lies behind the unfortunately persistent idea in parts of anthropology and sinology that Westerners are Cartesian dualists – as

Slingerland (2018) points out with reference to sinological comparisons, hardly anyone is a Cartesian dualist, and if they are, then it is only a very small amount of the time.

3. Wuxing 五行, translated here following Harper (1999: 863) to distinguish them from the received Five Phases (also 五行). While the latter are considered phases of a continuous flow of qi, the former were conceived as processes characteristic of each of the Five Materials (wucai; *ibid.*: 861).

4. The case is made more strongly, but far less systematically, by François Jullien (e.g. 1995, 2000). He claims a degree of cultural difference that is entirely unsupportable, and his ideas have been sufficiently critiqued elsewhere; see Billeter (2013), Slingerland (2018) and Matthews (forthcoming b). For an English overview of the Billeter–Jullien debate, see Weber (2014a, 2014b).

5. ‘Analogical’ rather than ‘analogist’, as for reasons already discussed, Descola’s term is useful only if applied to systematic ontology. Otherwise, in the absence of systematic ontology, all reflective ontological assumptions appear ‘analogist’, rendering the term meaningless.

6. Transliteration: Yi, wu xing: Yi yue shui, er yue huo, san yue mu, si yue jin, wu yue tu. Shui yue run xia, huo yue yan shang, mu yue qu zhi, jin yue cong ge, tu yuan jia se.

7. Transliteration: Run xia zuo xian, yan shang zuo ku, qu zhi zuo suan, cong ge zuo xin, jia se zuo gan.

8. The ‘Hong Fan’ does present other sets of correlates, notably the ‘Five Duties’ (五事 wu shi) and the personal qualities and meteorological ‘verifications’ (徵 zheng) they cause. However, as Nylan remarks, the Five Duties ‘do not reflect the same cosmogonic sequence’ as the Five Processes (1992: 15, note 7). The possibility that the section concerning the Five Processes and flavours is itself a later interpolation should not be discounted (Graham 1986: 80; Nylan 1992: 15) – though even if this were the case, the remaining correlates would still constitute a similar non-cosmological correlative taxonomy.

9. Transliteration: Wen wang yue ‘huo qi sheng’, huo qi sheng, gu qi se shang chi, qi shi ze huo.

10. Transliteration: Shui qi zhi er bu zhi, shu bei, jiang xi yu tu.

11. Transliteration: Lei gu xiang zhao, qi tong ze he . . . wu bu jie lei qi suo sheng yi shi ren.

12. Transliteration: Jin sheng mu, huo sheng jin, shui sheng huo, tu sheng shui, mu sheng tu. Dong fang mu, nan fang huo, xi fang jin, bei fang shui, zhong yang tu.

13. Wang (2008: 116) cites this as an example of how the older Four Quarters system was subsumed into the increasingly prevalent pentadic classification, the Centre being equated with Earth and thus stripped of its superior status.

14. For clarity, unless otherwise stated the discussion here concerns reflective cognition – use of words like ‘assumption’ should be accordingly understood here as referring to reflection rather than intuition unless otherwise stated.

15. In addition to being instrumental in the development of Yijing correlative cosmology, Jing Fang was an experimentally minded music theorist (Cullen 2010: 330) including manuscripts, have shed new light on China’s history, in particular Qin and Han (221 BCE–220 CE prior to his execution for sedition in 37 BCE (Loewe 2005: 205).

16. The authorship of this work is disputed by modern scholars, with some attributing it entirely to Jing Fang the Younger (Wang 2008: 131, note 2), and others denying his authorship (Loewe 2005: 205), or attributing it to the less well-documented Jing Fang the Elder (Hulsewé 1986).

17. Jing Fang was one of various Han cosmologists who sought to reconcile the Yijing with other correlative systems. At least one such figure, Yang Xiong, developed a new system of tetragrams out of dissatisfaction with the disjuncture between the hexagrams and other correlates (Loewe 2005: 79). See Smith (2008: Chapter 3) for a general account of Han approaches.

18. Sixty was an important number for Jing Fang, who developed the existing twelve-note pitch pipe scale into sixty different sequences, expanding a system correlated with the twelve months into one correlated with six-day intervals; the twelve pipes, differing in length according to a mathematical ratio (and hence producing the twelve notes), were buried in sequence and filled with ash as part of an empirical project of observing the transformation of qi throughout the year, the theory being that the changes in qi would be observable via the ash being blown from the pipes at the appropriate temporal juncture (Bodde 1981b: 354–56).

■

SCALE, COGNITION AND CULTURAL DIFFERENCE

Introduction

This final chapter combines what has been discussed in relation to dual-process cognition, and ways of reflectively establishing coherent cosmological theories, with further consideration of the role of scale in Eight Trigrams cosmology and in developing ‘consilient’ approaches to cultural variation (Slingerland and Collard 2012a). This is done with a view to developing a conceptual approach to cross-cultural comparison that accounts for universal human propensities without denying the reality of cultural and individual specificity. A perceived tension between the universal and the particular has long been a core conceptual problem for anthropology (and for sinology in comparative perspective) as a discipline that seeks to understand humans as at once members of a common species, characterised by ‘psychic unity’, but capable of huge variations in behaviour and imagination. This chapter argues that there is no good reason for this tension, and that the conviction that there is represents a significant obstacle to developing cumulative, explanatory approaches to human social behaviour and allowing the ethnographic record, in all its richness and diversity, to contribute to cross-disciplinary discussion.

Why this tension exists has been the subject of extensive commentary and often-heated debate, and enough sources on its history and development

already exist. Notable examples include Marshall Sahlins's insistence on the irreducibility of culture to biology in response to sociobiology (1977), the 'rationality debate' (Hollis and Lukes 1982; Wilson 1970), postmodern anxiety over the possibility of 'representation' (Clifford and Marcus 2010; Marcus and Fischer 1996) and more recently an emphasis on 'recursivity' as part of the 'ontological turn' (Henare et al. 2006; Holbraad 2012; Holbraad and Pedersen 2017). While these works address topics ranging from evolution to cognition to the nature of truth, all come back to the central theme of the magnitude of cultural variation in thought and experience, and how this should be considered analytically.¹ The primary concern here is to think through issues of cultural difference and cognition in relation to scale and the idea of homology; the discussion forgoes comprehensive critique of existing theoretical approaches in social anthropology and sinology, which would require another book, in favour of focusing on specific arguments to advance an approach to cross-cultural comparison that takes inspiration from the homological perspective of Eight Trigrams cosmology.

Sociocultural anthropology's great strength lies in its ability to capture the rich, specific accounts of ethnography and link them to wider questions about humanity. However, this strength is at risk if emphasis on the particular leads to disregard for the universal, or to an insistence that comparison is impossible because ethnographic phenomena should only be considered in their own terms. Similar points have been made by other anthropologists, emphasising the failure of sociocultural anthropology to contribute to cumulative approaches to essential scholarly questions and public intellectual debate (Bloch 2005, 2012; Boyer 2012). These authors have pointed to the productive possibilities of engagement between sociocultural anthropology and other fields, including cognitive science, while noting that much resistance to such engagement rests on fears of reductionism. Similar points have been made in calls for 'consilience' between the humanities, social sciences and natural sciences (Slingerland 2010, 2018; Slingerland and Collard 2012a), and calls from outside sociocultural anthropology in support of developing 'a unified science of

cultural evolution’ (Mesoudi et al. 2006; see also Tooby and Cosmides 1992).

Given this book’s emphasis on cognition, I have obvious sympathies with these approaches; however, I do not intend to restate a case already made. Instead, with the help of Eight Trigrams cosmology, I want to illustrate how cultural phenomena can be approached and compared in a way that is ‘consilient’ – that is, in which the knowledge produced by anthropology coheres with that of other disciplines like cognitive science – and that does not endanger the nuance, richness and specificity of ethnography. In agreement with Boyer (2012), this approach sees reductionism as an essential part of an ‘integrated’ study of culture in the sense that cultural phenomena can only be explained fully by recourse to other levels, such as the psychological or the evolutionary.² This does not make the specificity or subjectivity of cultural phenomena any less real or relevant. As Slingerland and Collard (2012b: 15) remark, ‘[r]egardless of whether we are scientists or humanists, we are generally not satisfied with explanations unless they answer the “why” question by means of reduction, by linking the explanandum to an explanans.’ Notably, they assume that explanation is the aim of the game, as do I – but plenty of anthropologists and sinologists may place more emphasis on ‘interpretation’. Even this, though, is reductive, assuming it goes beyond simple redescription of a phenomenon with theoretical jargon – to identify certain kinds of social relations giving rise to a particular idea or event, for example. As Slingerland and Collard (ibid.) remark, it is hardly unique to ‘scientific’ disciplinary approaches to find failure to engage in explanatory reductionism of some kind ‘trivial, superficial, or uninformative’.

I approach the issue here by analogy with ideas of scale in Eight Trigrams cosmology, in full awareness of a tradition of anthropological analysis that uses ethnographic material to rethink theoretical assumptions, often to quite different ends (as in much of the ‘ontological turn’ literature and its inspiration, notably Holbraad 2012; Viveiros de Castro 2004; Wagner 1981). Having already documented the explicit ontological and

epistemological perspectives of Eight Trigrams diviners, along with the historical development of similar perspectives, I have shown sufficiently that this knowledge tradition, quite distinct from that of contemporary cognitive approaches to culture, nonetheless possesses some important similarities with the latter in its outlook. By comparing the two, I also demonstrate that taking inspiration from ‘other’ cultural contexts need not be an exercise in exoticisation or ‘wonder’ (Scott 2014b) at the supposed profundity of ‘alterity’. To pre-empt some objections, I am not arguing that Eight Trigrams cosmology and cognitive approaches to human behaviour are identical or even reinforce each other – rather, I am using certain structural aspects of the former as a way of looking at what are commonly called ‘levels’ of explanation in the sciences, in a way that might be more amenable, and less provocative of dismissive accusations of reductionism, than simply presenting a cognitive explanation. Moreover, the idea of scale in Eight Trigrams cosmology in my view provides a more effective way of dealing with the myriad phenomena that come under the catch-all ‘culture’ than a simpler understanding of, say, a cultural level, a psychological one and a biological one – perhaps not in small part due to the fact that it has developed as a way of explaining highly complex subjective human relationships and dispositions in terms of monist cosmic principles. The previous chapter demonstrated that these structural features of Eight Trigrams cosmology have a long history; this should serve to allay fears that I am reading a scientific conception of levels into a non-scientific system, or that I am relying on a uniquely contemporary interpretation that engages with modern scientific discourse.

Approaching the question of universals and particulars in anthropology in dialogue with Eight Trigrams cosmology provides a means of discussing scale and reduction that is relatively free of the baggage of these issues in anthropology, and at the same time illustrates the principle that significant cultural differences in the content of knowledge systems nonetheless can be produced by common cognitive processes and have similar logical implications, suggesting a homological response to certain cosmological questions.

Reduction and Scale in Eight Trigrams Cosmology

The discussion of six lines prediction in Chapter 2 demonstrated the importance of zooming in and out across scales in Eight Trigrams cosmology. All of these scales can be understood in terms of the interaction and transformation of the Five Phases of qi, higher scales arising from and encompassing lower scales in a process that mirrors the cosmogonic differentiation of qi into the Ten Thousand Things. For example, six lines prediction might produce a hexagram from a Palace of the Water Phase. This means that on the scale of the client's overall situation, Water qi is especially influential, but this is not to the exclusion of the presence or influence of other Phases of qi on that scale, or at lower scales (indeed, any phenomenon encompasses all Five Phases on some scale). As indexed by the lines of the hexagram, at the scale of specific kinds of relationship, any of the other Phases might dominate, and zooming in to the scale of particular relationships with specific individuals, others still depending on the fates of the other individuals involved. Similarly, considering Ma Jianglong's explanation of the fengshui fish tank from Chapter 1, overall the fish tank can have an effect via interaction with qi-flows on the level of its owner's fate, while also being composed of elements characterised by different forms of qi (e.g. metal and wood structures, the qualities of different fish species and so on). The same cosmic principles of correlation, generation and destruction (among others) thus operate at all scales, and the predominance of a given Phase of qi on one scale does not exclude the predominance of another on a different scale. Thus, the cosmos as a whole, characterised by a balance of forms of qi, encompasses phenomena dominated by particular Phases, which themselves encompass phenomena influenced by other Phases in various combinations, and so on.

This complexity of configurations and interactions across scales is understood as being generated by a limited set of fixed principles, producing the coherent combination of ontology and epistemology presented in Chapters 2 and 3. Notably, while everything in this cosmos is constituted by qi governed by these principles, and is in this sense reducible

to it, that hardly means that the ‘higher’ levels of complexity or encompassment are any less ‘real’ than the most ontologically basic level; they must be understood in relation to other phenomena on the same scale as well as ‘lower’ and ‘higher’ scales. What it does mean, though, is that all scales are causally related, as products of a continuous process of qi-transformation stemming from a single origin. In this view, different phenomena, including different kinds of being, are manifestations of particular configurations of qi on a particular scale.

This conception of scale can be found as early as the Yijing’s *Explaining the Trigrams* commentary (Matthews 2018), but without the idea of universal qi. As mentioned in Chapter 4, early Chinese correlative cosmology has provoked extensive debate, typically concerning whether it is ‘relational’ rather than ‘causal’ or concerns ‘processes’ rather than ‘essences’ (see e.g. Hall and Ames 1995) – a debate that resembles the ‘rationality debate’ and its legacy in anthropology, and one whose terms are open to similar criticism from the perspective of human cognition. Consideration of the importance of transformations across scales in correlative cosmology further indicates that these are false dichotomies even on the level of systematic reflection. Arguments for the significant alterity of correlative cosmology rest on the fact that in such systems, apparently disparate phenomena are correlated with one another, such that in *Explaining the Trigrams*, for example, the trigram Xun is grouped together with wind, dispersal, the south-east, entering, chickens, thighs and eldest daughters, which apparently do not constitute a ‘natural’ category (Hall and Ames 1995), but instead one which supposedly must be based on relational coherence instead of shared essences (Ziporyn 2012). These positions focus on ‘correlative categories as ways of ordering the world rather than descriptions of the way in which the world is (taken to be) ordered’ (Matthews 2018: 33); that is, they present the same interpretive ‘problem’ as the question of analogical versus homological, or contrastive versus prototypic, taxonomies and the degree to which they have ontological implications. The constituents of the category Xun may well be grouped together in the first place due to analogical similarities – such that, for example, Xun is to the trigram Zhen as wind is to thunder (Zhen’s

correlate) or dispersal to movement or chickens to dragons or eldest daughters to eldest sons. However, that does not preclude them sharing an essence. Rather, in a homological cosmology, the real ‘natural kinds’ (i.e. the kinds with shared origins) are not weather, animals, directions and so on, but the trigram categories themselves (today understood as patterns of qi). These manifest differently at different scales – of weather patterns, animal kinds, directions and so on – such that the apparently analogical relations between class members are revealed to be homological on zooming out. That is, the Xun-ness of a chicken arises not first and foremost because it appears Xun-like in relation to a Zhen-like dragon, but because it is an effect of a certain cosmic configuration (Xun) at a particular scale. Thus, correlative categories can be at once relational and caused by shared essences.

When coupled with the concept of qi, as in contemporary Eight Trigrams prediction and other practices, this becomes significantly easier to understand. Qi as both energy and substance provides an explanation for correlative categories because it explicitly unites their members in a single overarching ontological category, as in Figure 4.3. This is ‘reductive’ in the sense that highly complex and particular phenomena at a certain scale are understood as effects of a simpler set of principles at another, ultimately ontological, scale. However, as examples of divinatory interpretation (or in the previous chapter, dynastic legitimacy) demonstrate, this does not deny the complexity and relational significance of events at the ‘higher’ scale of day-to-day relationships and subjective experience. Rather, complexity and simplicity are simultaneously the case at different scales, but which is relevant depends on one’s purpose. Much finer-grained details of relationships and emotion are addressed in six lines prediction than in diviners’ cosmogonic accounts, but this does not prevent both being discussed coherently in the same cosmological terms.

Moreover, when applied to specific phenomena, these cosmological terms explicitly describe propensities under certain conditions rather than causally independent inevitabilities – predictions depend on the contingencies of

human behaviour, which in principle can be influenced by any other co-occurrent phenomenon on any scale. Indeed, the idea that all things in the cosmos are causally connected constitutes the logical requirement for Eight Trigrams prediction to work in the first place. It is in fact one of the reasons for correlative cosmology's common interpretation as 'relational', or even holistic – everything only 'makes sense' in terms of everything else. An objection might be raised that the cosmology is therefore not reductive at all. But there is a slippage in mistaking relational interdependence for irreducible holism, which arises from a combination of failure to consider scale and, frequently, purely aesthetic objection to the idea of reduction in the first place. The latter is unlikely amenable to any kind of demonstration of its obvious irrelevance, but the former is clearly resolved by the concept of cosmic principles repeating across scales of increasing encompassment. The scale of the entire cosmos is 'holistic' by definition, but this does not prevent one from 'zooming in' on a particular scale of phenomenon that it encompasses (say, human relationships, or animals or directions). Zoom in far enough and one arrives at the smallest possible scale, that of the cosmos's most basic constituents – qi in this case. Understanding how qi operates in principle allows an understanding of how it creates more encompassing scales of complexity, and how at different scales it might produce effects on those scales. The cosmos does therefore only make sense in its own terms, but those terms are knowable by 'reducing' or zooming in on its basic constituents. This is made explicit in the Appended Phrases' account of the sage Bao Xi observing natural phenomena such as the markings on animals, reducing them to their common principles to create the Eight Trigrams and then extrapolating back from these to understand any other phenomenon in the cosmos. In a practice like six lines prediction, extremely complex phenomena such as human relationships are similarly considered knowable, and reduction of them to the principles of qi allows increasingly refined understanding through the systematic consideration of additional scales via the incorporation of additional systems of correlates. All of which is to say that Eight Trigrams prediction demonstrates that reduction is quite compatible with holism, causation with relationality, and process with essence.

Scale and ‘Reductionism’

The theoretical question of how to understand cultural difference in relation to universal propensities can be approached from an analogous position; rather than conceptualising the realms of ‘culture’, ‘cognition’ or ‘biology’ as competing for the position of the main cause of human behaviour, they can be considered different scales within a greater whole. Indeed, a ‘consilient’ approach necessarily extends beyond these scales and presumes a coherent cosmological whole, in which knowledge of phenomena within the cosmos at any scale must strive to reflect the structure of that cosmos; a sound understanding of human culture, cognition and biology must therefore ultimately also cohere with a sound understanding of physics extending well beyond the human scale to the smallest and largest scales of the cosmos. It is worth noting that this position is, at least in principle, common to most cognitive and evolutionary approaches to human behaviour, and should be combined with the necessary recognition that causal relations between the various scales we conveniently gloss as ‘culture’ and ‘psychology’ are not unidirectional and that the diversity of complex social relations also has to be accounted for. This forms the basis for the approaches of edited volumes like Edward Slingerland and Mark Collard’s theoretically and methodologically focused *Creating Consilience: Integrating the Sciences and Humanities* (2012a) and Julia Cassaniti and Usha Menon’s appropriately titled *Universalism without Uniformity: Explorations in Mind and Culture* (2017a) on the dynamic relationship between culture and psychology. Cassaniti and Menon’s introduction to that volume is worth quoting at length; though they do not focus on quite the same themes discussed here, they provide an effective summary of the historic disciplinary division between anthropology and psychology that speaks directly to the problem of not recognising the simultaneous existence and mutual influence of psychology and culture at different scales:

On the one hand, many psychologists, despite the existence of fields of investigation such as social psychology and cross-cultural psychology, tend

to see culture as so much ‘noise’ that obscures from view the functioning of the psyche (Fish 2000), even as they seemingly acknowledge the importance of social and cultural factors. But, as Clifford Geertz famously observed, a human being without culture would, in effect, be an ‘unworkable monstrosity,’ a meaningless and inhuman creature (1973: 49). Many anthropologists, on the other hand, labouring under the load of an excessive empiricism, are uncomfortable discussing subjective experiences that cannot be directly observed and studied. Preferring to deal with cultural constructs, anthropologists adopt either one of two strategies: (1) treat the mind as an unexamined (or even unexaminable) black box, or (2) invoke a “‘common-sense psychology” of human motivation and learning’ (Bock 1999: 2). Both strategies are problematic: The first results in removing cultural constructs from subjectively lived experience, thereby rendering them alien, and the second universalizes the anthropologist’s own unexamined, often ethnocentric, ideas of how the psyche supposedly functions. (Cassaniti and Menon 2017b: 3–4)

Recognising this does not need to be a task specific to the field of cultural psychology. The study of human behaviour from any perspective stands to gain from recognition of these problems, anthropology especially given its deep accumulation of ethnographic detail and the overwhelmingly unrealised potential this has to contribute to interdisciplinary research and theoretical development. At the same time, a far greater anthropological appreciation for the complex ways in which explicit cultural representations and practices interact with shared cognitive propensities is essential if anthropology is actually to avoid ethnocentric projection of a certain form of folk psychology, which often overly intellectualises or rationalises such representations (Boyer 1994b; Matthews forthcoming a) and rarely demonstrates a reflexive awareness of intuitive understandings that obscure accurate understanding of social phenomena (see Boyer 2018: Chapter 6).

Cassaniti and Menon’s approach, drawing on cultural psychology, tends towards the more relativistic end of the spectrum while Slingerland and Collard (2012b), drawing on cognitive and developmental psychology, tend

to the universal. An important aim for a consilient approach, however, ought to be to try as far as possible to abandon this spectrum in the first place. Without considering the scale to which these terms are chosen to refer, it is possible to generate ‘yes, but not among the X people’ examples of cultural difference in response to claims of universality, or ‘and yet they still do Y and, moreover, you understand it’ insistences that those differences are not really differences from the other direction, *ad infinitum*. While this raises a host of metaphysical questions about what constitutes an idealised ‘difference’ or ‘similarity’ in the first place – questions that are of worthy interest to philosophers – such debates are not directly useful for guiding cumulative empirical research into human culture.

Cassaniti and Menon emphasise the influence of culture on psychology, including the expression and experience of emotions, for example, but their argument tends towards one in which ‘culture’ must always be front and centre – that is, is always of primary relevance. In contrast, Slingerland and Collard’s argument is liable to being (in my view, mis-)read as not only attempting to explain ‘higher’ achievements of human imagination and creativity in terms of emergence from ‘lower’ or more ‘basic’ levels of causation, but of thereby denying the importance of subjective conscious experience. This could further be unfairly and inaccurately interpreted as arguing that subjective meaning is not really meaningful at all. That is, it might be seen as arguing that the more ‘basic’ levels of explanation are somehow more ‘real’, and this does in fact describe some less nuanced arguments for the reducibility of human experience, as Slingerland and Collard point out (2012: 26) (and it certainly describes the often-caricatured views of some evolutionary psychologists that all human behaviour, in a sort of hyper-innatist Freudianism, is really about sex and therefore not about any other meanings or experiences humans consciously or unconsciously attach to it). What Slingerland and Collard describe as a predominant ‘humanistic’ approach might conversely see the subjective, in all its visceral immediacy, as a far more ‘real’ part of existence than invisible evolutionary forces, much less the simple interaction of physical particles and processes.

The trouble with this is that clearly none of these levels is any more or less ‘real’ than the others, and their existence is not mutually exclusive as part of the same phenomenon. Take, say, a person reflecting on the nature of love, at the extreme end of what might be considered entirely subjective. This involves extremely high-level reflection on intuitive emotion, memories of subjective experience and tacit knowledge, accompanied by vivid subjective experience and imagination as well as perhaps philosophising abstraction and intellectual and emotional connections with moral and religious concepts. At the same time, this rich subjectivity may be variously distinct from, but is nonetheless comparable to, that of other individuals – but the distinctiveness of certain aspects of this individual’s reflection to an observer will increase as they incorporate in their field of view more and more individuals of increasing cultural distance while staying focused on that same broad scale of individual reflective subjectivity. However, they will likely start to observe some patterns in what is more or less distinctive, even as every part of the group of individuals observed exhibits a different epidemiological pattern of representations of ‘the nature of love’.

If instead of zooming out from the level of individual subjectivity to social levels, the observer were to zoom in, they would find other cognitive processes, many unconscious, occurring in causal relation to other processes in the brain linked to the physiology of the body as a whole and its constitutive systems; zooming in further, they would find processes on the level of cells, molecules, atoms and subatomic particles, just as if they zoomed out even further they would find social patterns interacting with geographical patterns, and so on – and at these greater distances, similarity would start to appear more obvious than distinctiveness. What is important, though, is that all of these elements and processes exist simultaneously at different scales – understanding subjectivity as a mental process does not mean subjectivity is less ‘real’, understanding mental processes in terms of neural ones does not mean mental processes are not real and so on.

At the same time, all of these phenomena are shaped by other processes that also occur simultaneously at these different scales, with varying degrees of complexity depending on other phenomena and processes at the same scale: subatomic, cellular, cognitive, social, cosmic and so forth. So that individual reflecting on the nature of love is at once a being physical, biological, psychological and cultural, and their behaviour is simultaneously due to philosophical abstraction, subjective experience, memory, cultural history, their social environment, sexual selection, natural selection, physiological response to the immediate environment, biological life history, and physical and chemical processes, among other things. Hence, ‘reductive’ explanation of any of these levels does not deny their reality or importance; the existence of ‘ultimate’ explanations, as causal prerequisites for proximate ones, does not diminish the reality or significance of the latter. What is important is the scale at which subjective experience, sexual selection, atomic processes and so on become more or less relevant – and this depends on the emergence of such phenomena from, and their recursive interaction with, other scales of phenomena. For a scholar of human behaviour, it also depends on the explanatory or interpretive process to which knowledge of a phenomenon is to be put, as while, to take another example, the events leading up to, say, the First World War could in principle be described in terms of atomic processes, this would not prove especially practical or more useful than doing so at scales of individuals and societies (but consideration of scale would leave greater room for consideration of the effects of, say, geography or ecology, which could offer useful insights).

Taking proper account of scale should therefore allay any fears that explanatory reduction somehow diminishes the reality of ‘higher’ level phenomena, such as individual subjective experience or diverse cultural conceptions. To continue to insist that such reduction is unequivocally a Bad Thing can only stem from a rejection of evidence in favour of intuitive mind–body dualism (Slingerland and Collard 2012b) – an extreme position of epistemological relativism that would render empirical study of human behaviour impossible in the first place – or a kind of moral-aesthetic discomfort with explanation of anything cherished as (supposedly) uniquely

human. On the last point, the allure of anthropology is surely often the promise of encounters with difference (or ‘alterity’, if one insists), and that relies on some sense of mystery. This is made explicit in writings such as Roy Willis’s and Patrick Curry’s (2004) approach to astrology, vehemently against astrologers who attempt, in a manner similar to Eight Trigrams diviners, to demonstrate the ‘scientific’ credentials of their practice. Instead, they insist, in a manner reminiscent of writings concerned with the ‘recursive’ strand of the ontological turn (e.g. Holbraad 2012), that astrology is not really about finding out about the world at all, but is instead about ‘enchantment’. Of course, one is fully welcome to find divination or the relational emphases of Chinese correlative cosmology (or any other manifestation of ‘alterity’) enchanting, but to then insist that that is absolutely what it is, full stop, and moreover, what it should be, is to disregard evidence from ethnography to history to psychology. Far from being a project of standing up for faithful representation of cultural thought and practices on their own terms, or ‘taking people seriously’, this kind of moral-aesthetic rejection of reductionism instead evinces a particular species of intellectualised mysticism, often recognisable by attendant sniping at apparently ubiquitous ‘Cartesian dualism’ throughout ‘the West’ and a tenacious insistence on the ontological dualism of ‘science’ (typically at significant odds with actual scientific ideas).

This is not to deny the importance of acknowledging that most psychological studies continue to draw predominantly on ‘WEIRD’ (Western, educated, industrialised, rich, democratic) populations such as US undergraduates. This is indeed a problem for comparative work, one acknowledged and actively addressed by cognitive anthropology (e.g. Astuti 2001; Astuti and Bloch 2010; Boyer 2018) and cultural psychology (e.g. Cassaniti and Menon 2017a). However, anthropological (see Scott 2013) and sinological (e.g. Hall and Ames 1995) objections tend to focus specifically on various manifestations of ‘Western dualism’, with an emphasis on generalising certain philosophical conceptions to the West today and historically, including variously a distinction between subject and object, science, the concept of the individual, ‘causal’ thinking and so on. Cartesianism is indeed peculiar, even in the West (Slingerland 2018), but

this cannot be said about many of the other features commonly associated with it, including (usually poorly specified) ‘dualism’. Cultural differences of comparative interest for anthropologists are, for reasons outlined in the Introduction, unlikely to be found in the abstractions of philosophers – and indeed, as the WEIRD acronym suggests, we might do better to look to systems of socialisation, economics, technology and political structure than the history of ideas to find their causes.

Scale and the Study of Cultural Differences

As in Eight Trigrams cosmology, accounting for scale in the manner described represents a way around the ‘problem’ of reductionism. This conception of scale can also provide a means of rethinking the perceived tension between the universal and culturally specific, particularly when the two seem at odds – and a means to do this effectively is provided by certain approaches to cognition, such as dual process theory and modularity. Moreover, taking further inspiration from Eight Trigrams prediction and its understanding of resemblances, we can better consider the recurrent patterns and enduring differences we find in the ethnographic and historical record – an understanding broadly analogous to approaches in biological and cultural evolution.

Implications of Cognition: Folk Psychology and the Scale(s) of the Individual

Part of the problem of cultural difference in anthropology (and sinology) stems from a surprising lack of consideration in the discipline of what an individual human being actually is. Now, it is absolutely true that at least from the time of Marcel Mauss and his examination of ‘the category of the person’, personhood and selfhood have been perennial topics of anthropological attention. Mauss (1985) notably differentiated between the

person as self or subject (moi/personne), the role of the person (personage) and the 'persona' in various cultural and historical contexts; however, as Mauss acknowledged even for the 'self', these all pertain to explicit conceptions of who one is. Thus, the anthropology of personhood and the self has been the study of diverse reflective representations of individuals as psychological and social beings. These representations, though, like other reflective representations, pertain to a particular form of cognition. Often, as with explicit ontological conceptions, these are highly elaborated, and different aspects of the self or person might be reflectively identified as ways of making sense of the many contradictions inherent in human motivation, belief, intent, emotion and so on.

The issue for anthropology is not that it fails to attend to varied cultural representations of these, but rather that anthropologists almost invariably (and it is very difficult not to) fall back on their own representations of what the person or self is, as pointed out by Cassaniti and Menon. These representations are strongly shaped by intuitive psychology. Evolutionarily speaking, representations of the person and their behaviour build on strong intuitions that have persisted because they provide a very effective means of functioning effectively in a social environment; this does not mean that these intuitions are necessarily especially good at understanding the mechanisms behind individual behaviour or, indeed, how societies actually work – leading Boyer (2018) to ask whether human minds can actually understand societies as objects of analysis in the first place. That is, 'folk psychology' and its core component, theory of mind, bias us towards identifying features of human behaviour that appear to indicate belief and intent. We intuitively look for agency and frequently find it as a cause, even when it does not exist (as in attribution of events or (mis)fortune to supernatural phenomena, malicious intent or conspiracy theories). This is a crucial feature of human cognition, one with which we are all subjectively familiar and which plays an important role in, for example, religious cognition (Atran 2004; McCauley 2013). One cannot help but attribute agency and intent to anything that behaves in the right kind of way – in a manner analogous to being unable to avoid reading text once we have learned how – so we spontaneously assume that this is true not only of

beings that do have intentions, such as other humans or nonhuman animals, but also of uncooperative computers, fictional characters (or the media in which they find themselves), organised groups of individuals (states, families, political parties) and even shapes that move a certain way on a screen (Scholl and Tremoulet 2000).

When it comes to human behaviour, the issue is not one of whether humans have such intentional agency in the first place, but rather that this folk model oversimplifies. We tend to see humans primarily as intentional agents of a particular kind, for which actions follow intentions, which are based on beliefs, and are produced by a centralised, coherent self – we ‘anthropomorphise humans’ (Boyer 2018: 23–27), which is fine for interacting with them but not necessarily helpful for understanding how they actually behave and why. Anthropologists, who have access to explicit representations and observable practices, naturally draw connections between the two in accordance with their folk-psychological model. Individuals express beliefs and report intentions, from which anthropologists draw conclusions about ‘actual’ belief or intent in relation to observed actions and connect the dots. Notably, it is not the case that this approach makes no room for contradiction – that there is commonly a disjuncture between what people believe, say they believe, and do is a pervasive anthropological truism. However, all of this is itself implicitly (or as we have seen, sometimes explicitly) assumed by anthropologists to occur as part of a wider coherent agency: an intention to deceive, an act of resistance or subversion, a desire to maintain good relations and so on, all of which are imagined to occur through cognitive processes basically similar to conscious thoughts (ibid.: 25). Anthropologists thus go looking for ways to make apparent contradictions coherent, typically by invoking external causes or overarching logics that effectively explain them away – and in so doing generate artefacts such as deep ontology, structural logic, ‘resistance’ to hegemonic regimes and so forth.

So there are two issues here. First, there is an assumption that coherence of belief, intention and action is the norm, and if it does not occur, one has

either not looked hard enough for the underlying logic (e.g. structuralism, deep ontology) or there is interference from an external factor, typically another agent (e.g. attribution to vaguely defined strategies – or more fashionably, ‘techniques’ or ‘technologies’ – of ‘resistance’, ‘power relations’, etc.).³ Second, it is assumed that this is because the human mind operates in an uncomplicated manner on a single scale, in which a centralised self forms beliefs and intentions and acts upon them. As has already been discussed, dual process theory, alongside modularity and other features of cognition (notably the distinction between experiencing and remembering and its effect on judgements)⁴ indicate that this conception is unrealistic. Given how central it is to being human, however, it is likely extremely difficult to overcome – particularly for researchers of human behaviour ‘in the wild’, like fieldworking anthropologists, and especially when relying on the kind of qualitative data which characterises ethnography. Nonetheless, it deserves to be tackled not only because it risks inaccurate explanation, but also because it contributes to the problem of ‘radical alterity’, which disappears from a viewpoint informed by a more nuanced understanding of cognition and scale.

The ‘Twins Are Birds’ Problem as an Example

This problem is exemplified in discussions such as that of ‘Chinese’ correlative thinking and ‘Western’ analytic thinking. As shown in the previous chapters, this is often due to an assumption that the representations that strike one as especially ‘different’ are to be taken ‘seriously’, by which is typically meant ‘literally as statements of coherent beliefs about, and guiding behaviour in, the world’. In agreement with Rita Astuti’s arguments on this question (2017), doing that does not really amount to taking people seriously at all. To actually do so would mean to consider the nuances and varied processes of human cognition and how they respond to different stimuli. What happens in much ‘alterity’-driven analysis is instead a flattening of human cognition in line with the intuitive model just discussed. A classic example of this in anthropology is the ‘twins are birds’ problem, an effective overview of which is provided by T.M.S. Evens

(2012), alongside some less effective arguments. In brief, in 1936 Edward Evans-Pritchard reported that the Nuer people habitually stated that ‘twins are birds’ in broadly religious contexts. Evans-Pritchard concluded that the statement ‘seems odd, if not absurd’ (1956: 131, quoted in Evens 2012: 2) owing to its apparent contradiction. He argued that in fact the statement was not contradictory, as far from being a literal statement about empirically observable twins and birds, it was a metaphor, twins and birds having an analogous relationship to spirit or God in Nuer theology. In doing so, Evans-Pritchard was arguing against Lucien Lévy-Bruhl’s theory of ‘primitive mentality’, to which such contradictions supposedly posed no problems. This, however, is not the only interpretation to which ‘twins are birds’ has been subject.

Evens takes issue with it, drawing on a 1970 critique by James Littlejohn. Littlejohn argues that the apparent absurdity of the Nuer statement is due to the anthropologist’s ‘awareness or knowledge of a body of knowledge about species and the classification of them’, notably the idea that animal species, despite deep evolutionary relationships, are for most intents and purposes ‘mutually exclusive’ – one species cannot reproduce with another (1970: 92–93, quoted in Evens 2012: 4). Littlejohn contends that as the Nuer did not seem to know about evolution, which in any case would hardly be compatible with their belief that the world had existed for only ten to twelve generations, they lacked an understanding of biological species and their relationship to reproduction, meaning that they might expect members of one species to produce a member of another (exemplified by further ‘twins are birds’-style examples, like reports of a woman giving birth to both a human baby and a hippo).

Evens, for his part, agrees with Littlejohn but goes further, taking the ‘ontological turn’; his perspective resembles that of Martin Holbraad (in Carrithers et al. 2010), who argues that the anthropologist should approach these issues on the starting assumption that they do not know what the Nuer are talking about in the first place, rather than trying to shoehorn ‘twins are birds’ into ‘our’ reality (not just our perspective on reality, significantly).

Evens argues that a true understanding of ‘twins are birds’ requires imagining what reality would have to be like for that statement not to seem absurd. He does this by arguing that Evans-Pritchard, as a ‘modern’, when reflecting on or talking about what exists (and here he clearly means any statement, rather than something more constrained like the idea of systematic ontology), starts from an ‘entitative’ ontology, in which ‘a thing is what it is’ (2012: 6). It begins with a ‘basic particular’, such as a twin or a bird, rather than the ‘whole’ (which in the Nuer case would be spirit or God). This means it prioritises the exclusive identities of these basic particulars, meaning that the ‘whole’ of reality is closed and defined as the sum total of the basic particulars that are, against everything else, which is not. This perspective is therefore inherently dualist, ontologically separating the real from the ideal. From this viewpoint, ‘twins are birds’ cannot make sense because twins are twins and birds are birds (compare this to Ma Jianglong’s characterisation of Chinese and Western ways of thinking in Chapter 3). The solution in Evens’s view is to conclude that the Nuer took the inverse view, starting from an elaborate ontological edifice based on an unbounded whole, not defined in opposition to anything. From this viewpoint the whole is ‘basically real’ or the ‘ultimate reality’ (2012: 8), but because everything within it is defined in relation to everything else as part of the whole, rather than mutually exclusively against other particulars, there is no ontological separation between the real and the ideal.

As credible accounts of what the Nuer were saying when they said ‘twins are birds’, or more importantly, of why they were saying it, all three of the above fare poorly, though Evans-Pritchard was right to recognise the possibility that ‘twins are birds’ was not to be taken as a literal empirical statement, but one in a different register – the oft-overlooked idea that people might use the same words to say and mean different things in different contexts, what Lloyd (2014) calls ‘semantic stretch’. What is not evident, though, is that ‘twins are birds’ need be taken as expressing an alternate relationship between twins, birds and gods when it is uttered, even if it does derive from a religious context – a point returned to presently. Littlejohn’s critique is a textbook case of both ‘theologistic bias’ (Boyer 1994b: 40) and the folk-psychological model more generally. Not only does

he assume that the Nuer must actively seek coherence between their cosmogonic theories (the age of the world) and habitual identification of types of living beings (twins and birds), but he also suggests that knowledge of the mutual exclusiveness of species depends on a theory of evolution. The first assumption makes the same mistakes as deep ontology. The ridiculousness of the second, however, transcends the standard excesses of the first considerably in its assumptions that a notion of natural kinds must be accompanied by an explicit account of their origin; that the particular idea of mutually exclusive species requires knowledge of evolution (what about the Great Chain of Being?);⁵ or (most egregiously) that a people who, while comfortably sustaining their own population, subsisted on breeding and herding animals never understood the relationship between species and reproduction. Evens's approach similarly assumes that taking the Nuer seriously means taking them literally (and by extension, as incapable of non-literal thought), and combines this with the same false dichotomy between 'holism' and essence-based reductionism recurrent in debates on correlative cosmology.

The problems with all three accounts boil down to an assumption that apparent incoherence, whether between speech and reality or between different domains of knowledge (such as natural kinds and religion), is a problem that needs to be solved. As evinced especially by Littlejohn and Evens, this requires a huge amount of conceptual acrobatics and selectivity. The need to make 'twins are birds' coherent itself stems from the folk-psychological model of the mind, which is essentially 'flat' in the sense that all concepts, cognitive processes and communicated information are implicitly understood as occurring on the same level. That level is, perhaps unsurprisingly, the one in which the anthropologist typically writes – systematic, reflective (slow and deliberative) consideration of phenomena with a view to formally understanding their causes.⁶ Because they are understood as occurring on the same level, rather than as products of distinct processes and combinations of processes and inputs often running alongside one another, they must, surely, make sense in relation to one another – hence, the search for ontological theories, different worlds and so forth. A good example of this flattening of the mind is provided by Evens:

I submit that our common-sense ontology is of the kind described: entitative rather than relative, and dualistic rather than gradualistic. That is to say, I take it that – whatever the complexity of our actual lived experience – when in the course of everyday life we have occasion to reflect on and articulate to others or ourselves what there is, we tend to start by taking for granted basic particulars but not the relations between them. If this phenomenological surmise is sound, then it is not too hard to see why the expression ‘whales are men’ [presented as analogous to ‘twins are birds’] is an unlikely usage among us. (Evens 2012: 7)

The problem is that his ‘phenomenological surmise’ is not sound at all – it is neither parsimonious nor supported by the available evidence. As Dan Sperber points out (1985: 41–44), a relativist assumption that statements of the kind revealed by ethnography are instantiations of a particular ‘worldview’ or similar – and as such, expressions of an entirely ‘different world’, if its implications are fully elaborated (and they never are) – presumes a phenomenal innate capacity on the part of human beings to not simply learn about and to act within a predetermined cognisable world, but to potentially do so in an infinite number of possible cognisable worlds depending on the one into which a person is born.

The foregoing discussion of deep ontology is sufficient to demonstrate the problems with assuming that day-to-day thought and communication is inevitably predicated on coherent ontological assumptions such as ‘basic particulars’. Both of these assumptions of coherence (instantiation of worldview and clear underlying ontological categories) flatten human cognition onto a single plane whose function is to understand and generate propositional truth claims.⁷ It is only under these conditions that ‘twins are birds’ presents any kind of problem. As Sperber demonstrates (1985: 49 ff.), such statements are an extremely common feature of human communication, and stem from mental representations that are not propositional but ‘semi-propositional’ – that is, rather than being definite

propositions about the world, they are not fully understood in that sense, and as such have more than one possible interpretation, one of which the holder might presume (but not know) to be the ‘proper’ one dependent on circumstances. Semi-propositional representations, in Sperber’s terms, tend to be ‘representational beliefs’ that are stored indirectly, rather than ‘factual beliefs’ (spontaneously recalled knowledge). A representational belief is, in effect, holding a factual belief about another representation – for example, believing that that representation is what is held to be true by a trustworthy source, or in a given context – such that it can be entertained under certain circumstances. These beliefs, Sperber argues, have the polyvalent characteristics of profundities, such as ‘there is not happiness without love’, or ‘people of different cultures live in different worlds’ (1985: 50–56).

‘Twins are birds’ and equivalent statements are just such ‘commonplace representational belief[s] of semi-propositional content’ (Sperber 1985: 60). This means that people might routinely make such statements because a certain interpretation seems to have relevance in a particular context, and it is taken as true by the speaker that a proper interpretation of the statement exists. Therefore, the speaker can sincerely state that ‘twins are birds’, without that statement being propositional. It is not justifiable to say, therefore, that ‘for the Nuer it is a fact that twins are birds’. Attempting to reconstruct the ontological conditions that would render the statement factually correct may be an enjoyable speculative exercise, but it is irrelevant for understanding actual thought and behaviour. Once the flat view of cognition is abandoned, a search for coherence of this sort ceases to be necessary. Incidentally, this is why Evans-Pritchard’s understanding was also mistaken, as it assumed a propositional understanding expressed in metaphorical terms.

While Sperber’s model of semi-propositional representations gets around the immediate problem, something further should be said. Holbraad, approaching issues of cultural difference from a similar perspective to Evans, objects that cognitive solutions remain wedded to an unjustifiable distinction between nature and culture, identified inevitably with

‘Enlightenment dualism’, by arguing that ‘representations themselves are as natural as trees since they are nothing more than the product of brain processes (nature squared, culture, supposedly, vanished) . . . In cognitivist parlance “representations” is indeed just another word for “culture”’ (Holbraad, in Carrithers et al. 2010: 182). One might reasonably question who the real dualist is here, given that the objection seems to be primarily that culture cannot be reduced to nature because representations must be ‘more than the product of brain processes’. A charitable reading takes this as a semi-propositional statement, one possible interpretation of which is that because cognition is about ‘brain processes’, and the brain is a biological organ, cognition is biological, and is therefore part of nature, which must mean that it is also understood as universal, and therefore there is no room left for the mysterious forces of culture to produce alterity.

This objection is at odds with a cognitive approach founded on an understanding of multiple, simultaneous and interacting scales, in which a distinction between nature and culture as reified in many anthropological discussions simply does not make sense. Once the mind is understood as not being flat, but itself encompassing a range of scales of concurrent and interacting processes, themselves interacting with scales ‘above’ and ‘below’ the mind, it becomes possible to accommodate cultural differences in thought alongside general propensities and constraints. For example, intuition and reflection can be considered to operate at particular scales, as can different modules. And this can be done without falling into a simplistic understanding of the universal as natural sameness and the particular as cultural difference, precisely because of the continual interaction of processes and inputs on different scales. Recall, for example, that intuition does not correspond to what is universal, nor reflection to the culturally particular; many intuitive beliefs can be acquired through learning in a particular context, even as some (such as intuitive physics) appear to be universal, and the same is true of reflective beliefs. The individual mind, then, contains multiple scales, and these interact dynamically, especially through learning. This has implications not only for how to understand cultural differences in the content of representations, but also how those differences come about.

Homology and Analogy in Cultural Epidemiology

Just as a focus on scale allows the accommodation of different levels of the cosmos (including cognition) without denying or privileging any one scale beyond its relevance for a specific epistemological goal, it helps to conceptualise the ways in which interacting phenomena develop over time. In Eight Trigrams cosmology, variation in recurring patterns of resemblance on different scales provides an example of how a limited range of basic principles is nonetheless able to accommodate immense complexity. This stems directly from the understanding of dynamic relationships between Phases of qi on and across scales over time, as years, months, days and hours are all correlated with particular Phases. The combination of multiple scales and their progression through time is what enables a practice like Eight Trigrams prediction to avoid generating the same prediction for two different individuals, which would suggest they share the same fate, an issue of concern in the related practice of bazi horoscopy (Homola 2021) – in this way, it allows for common origin and similarity without reducing that to sameness.

The epidemiological spread of cultural representations and practices between individuals can be considered in the same way. A common set of evolved propensities and responses to certain environmental cues as part of humans' species-wide heritage can thus be understood to produce wide variation, despite constraints. In such a view, it becomes clear that the classic universal–relative or nature–culture dichotomy is unsustainable. Humans' evolved cognitive propensities, such as the capacity for intuition and reflection and the ways in which these relate to learning and memory, domain-specific cognition (spatial, face-recognition, agency detection, etc.) and so on, unfold during individual development and maturation in relation to all manner of environmental features – 'environmental' being broadly construed to cover anything from the prenatal environment to socialisation to the affordances of local ecology. Human life history is best understood in

terms of individually variable propensities that develop dynamically as a function of responses to the environment via sensory perception, cognition and physiological cues.⁸

Despite perennial protestations in anthropology that the activity is ‘impossible’ (Candea 2018), even the anthropologist most committed to an idea of ‘radical alterity’ cannot help but engage in comparison. For example, a key inspiration for strands of the ‘ontological turn’ has been the cosmology of shamanism, whether in Amazonia (Viveiros de Castro 1998) or Mongolia (Pedersen 2007). At minimum, these examinations presume that cosmology is a recurrent feature of very different societies (Amazonia vs Mongolia vs the West), but they also identify a recurrence of a subtype of cosmology: shamanism. They identify recurrent patterns in human culture that exhibit remarkable similarities both in terms of representational content and in practices. A relativist, bottom-up take on comparison, like these approaches, might stop there before it becomes difficult to sustain claims of quite such radical difference. But a top-down, more ‘scientific’ take might well concentrate on why such a recurrence occurs. And in fact, one does not need to jump down the cognitive rabbit hole to do this, as anthropologists have done a good job of documenting the recurrence of social phenomena as diverse as kinship organisation, the effects of colonialism, conditions of state power and so on. However, not jumping down that rabbit hole severely limits the extent to which the ‘why’ question can be satisfactorily answered, risking tautology by explaining the sociocultural purely in its own terms, typically smuggling in the flat folk-psychological model and perpetuating a dichotomous understanding of nature and culture. If instead such comparison is informed by cognition, then we can ask important questions about why certain representations and practices are more likely to spread under certain environmental conditions (including those produced by existing representations and practices), including in terms of how individual cognitive development and maturation is affected.⁹

By adopting the scale-focused perspective outlined in this chapter, such a project can be conceived in terms of exploring the extent to which recurrent patterns are homological, arising as products of common causal factors in the form of evolved developmental propensities and environmental influences. Recall that homology, as used in the study of biological evolution, refers to traits deriving from a common origin, whereas analogy refers to functional similarity derived from distinct origins. Note that, in a similar manner to the questions of taxonomic scale addressed in Chapter 4, homology and analogy are functions of the scale of comparison. Thus, the similarity between a bird's and a bat's wing is homologous in terms of their embryological development and evolution as vertebrate forelimbs, but analogous in terms of their function as wings, as both evolved independently from a common ancestor that lacked wings (in contrast, both birds' and bats' wings are analogous to insect wings on both counts). If we apply this conception to the study of cross-cultural variation, these concepts can have similar utility, as has been pointed out in the burgeoning field of cultural evolution, from which sociocultural anthropology remains unfortunately distant (Durham 1990; Mesoudi et al. 2006; see Spencer 1992 for a discussion in relation to archaeology).

The field of cultural evolution focuses on chains of transmission of artefacts, stories, practices and so on in a manner similar to linguistic evolution. In that context, analogy and homology would describe resemblances between such cultural products found in different cultural contexts, and whether they share a common origin or were invented independently. However, the terms can also be applied to the behaviour that gives rise to a given cultural trait, as a function of learning and cognition. So, for example, while two kinds of pot may be analogous with respect to their transmission, having been independently invented, they are homologous as products of human behaviour, because similar environmental circumstances have presented a common challenge of transporting water, responded to by individual humans based on common cognitive propensities.

We can go beyond this to start to look not only at artefacts, but practices, beliefs and institutions – to examine, for example, the extent to which forms of economic or political organisation stem from homological behavioural responses to geographical affordances, availability of food resources, population density, existing cultural systems and so on, or whether analogical responses might play a role and under what circumstances. This is suggested as a guiding conceptual framework for the study of cultural variation; it is highly unlikely that every relevant homology or analogy of behaviour and transmission at every relevant scale can realistically be teased out, particularly given the complexities of paths of cultural transmission and social learning. Epidemiologies of culture and the behaviour of those who create and partake of them are never the same, even within groups; the conceptual value of scale in this approach is that the dynamic process of learning and transmission can be understood to function not only at the level of the ‘society’, but above that to the scale of ‘civilisation’ (Feuchtwang and Rowlands 2019) and below it to that of immediate social groups of kin and friends, between individuals and within individuals’ own life histories. But at every level, we can seek to identify behavioural homologies and analogies that give rise to recurrent patterns of culture, and the environmental inputs that provoke them. While even cultural epidemiologies that have developed as a result of homologous responses to very similar conditions will never be completely identical, as Mark Twain supposedly said of history, they sure rhyme.

Notes

1. My concern in this chapter is empirical. Debates concerning, for example, the politics of representation can only be answered in relation to moral positions and thus lie beyond its scope.
2. See the note on ‘evolved capacities’ at the start of the book.

3. Given anthropologists' focus on the social, it is perhaps to be expected that these external causes are looked for at that level. They do not have to be – the tendency to assume 'external' causes can also be found, as it were, from the other direction, as in the over-attribution of all kinds of complex learned behaviours to 'costly signalling' by some evolutionary psychologists.

4. See e.g. Kahneman (2012) and Kahneman and Riis (2005).

5. A notable feature of this kind of exoticising explanation is the implication that the breadth of Western thought is entirely encompassed by rationalist philosophy and that therefore, equivalently 'absurd' claims, such as wine being the blood of Christ, cannot possibly be found much closer to home where they might appear less a function of cultural 'alterity'.

6. Notably, the anthropologist does not do this all the time, and, by virtue of other modes of cognition, is in other contexts made aware of that fact, as has been discussed.

7. This is a general feature of such approaches, and one which is particularly ironic given their frequent concern with the potential problems of assuming that cultural others employ such conceptions of truth (e.g. Holbraad 2012; Willis and Curry 2004).

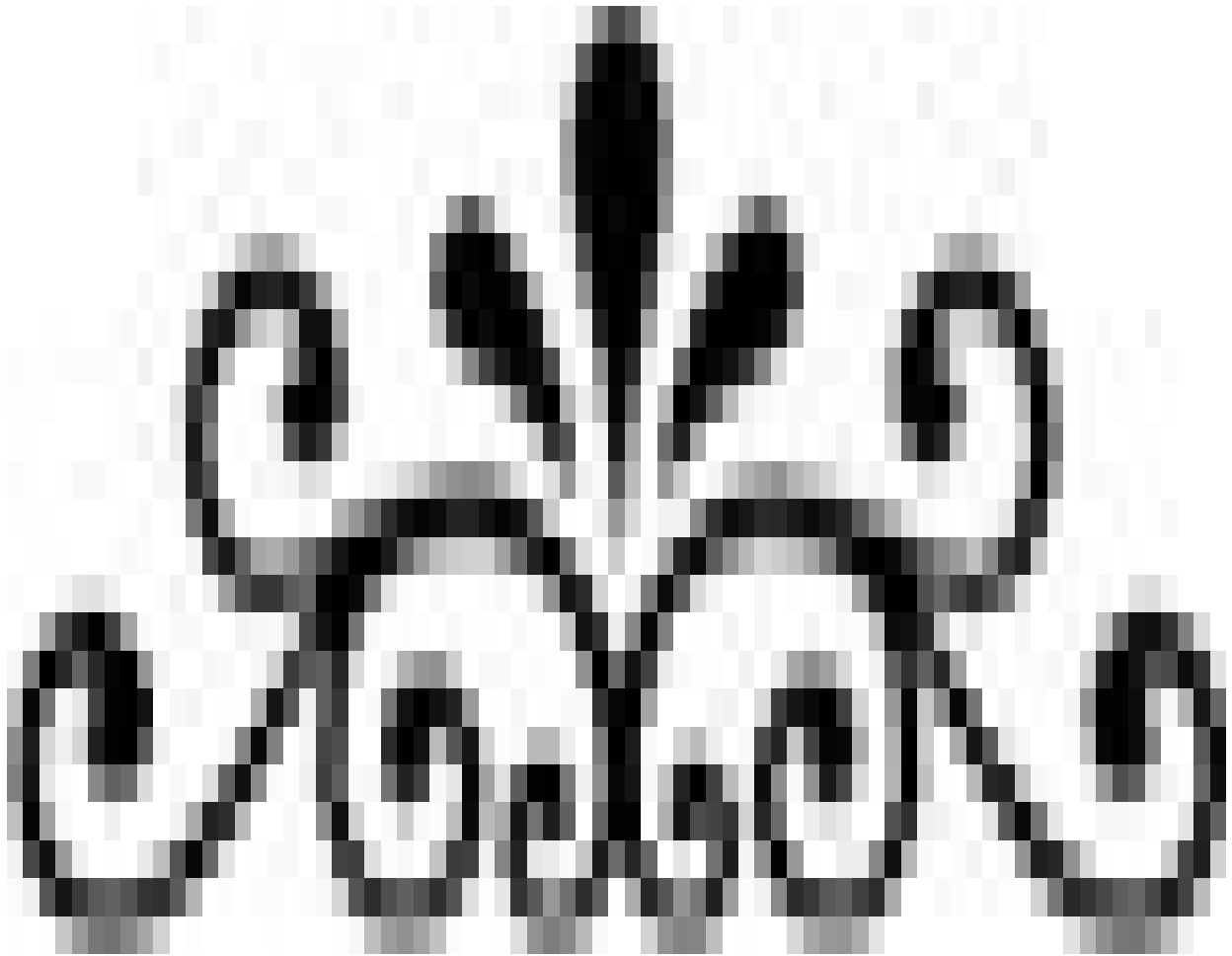
8. For a good, comprehensive discussion of this in relation to cultural variation that draws on cognitive science and ethnography, the reader is referred to Pascal Boyer's *Minds Make Societies* (2018), and Dan Sperber's

Explaining Culture: A Naturalistic Approach (1996). In a similar vein on specific subjects pertaining to development, constraints and variability in conceptual categories, good examples include Astuti (2001), Astuti and Bloch (2010), Astuti et al. (2004), Atran (2004), Atran and Medin (2009), Bloch (2012), Boyer (1994b, 1994a, 2010) and McCauley (2013).

9. Boyer (2018) provides good examples of explanatory comparison of this kind on a range of classic anthropological topics. Descola's (2013) work on modes of identification also stands out as a landmark study that documents important social correlates of different cosmological beliefs, and Feuchtwang and Rowlands's (2019) work on 'civilisation' as chains of transmission effectively uses large-scale comparison to identify recurrent features worthy of further explanation, such as the apparent connection between early cooking methods and conceptions of supernatural agents.

CONCLUSION

Cosmic Coherence and Correlative Comparison



This book has sought to present a cognitively grounded approach to the anthropology of cosmology ‘through’ Eight Trigrams divination. In doing so, my aim was twofold: to provide an empirical contribution to the study of Chinese cosmology and divination as understood by its practitioners, and to demonstrate that such a classic anthropological subject as cosmology can be

analysed in a way in which cognitive approaches and ethnographically derived insights mutually reinforce one another.

A continuous theme on both counts has been ‘coherence’ – something pursued by diviners developing their own explicit theories of ontology and epistemology, and by anthropologists seeking to understand cultural variation. Developing a coherent analytical approach to cosmology requires two understandings of coherence. First, in cognitive terms as a contingent property of mental representations. Master Tao and Ma Jianglong both maintained and continued to develop coherent theories of the cosmos, grounded in what I have called systematic ontologies. They did so in full awareness of the fact that such accounts are contingent on a particular kind of systematic consideration and the fallibility of human observation. Coherent cosmological thought is manifest under specific circumstances; rather than guiding perception itself, a coherent understanding of the world, unified by systematic ontological principles, is the product of sustained reflection. Thus, coherence of cosmological viewpoint is the exception, not the norm; it is a capacity of a specific level of cognition in certain circumstances, which exists alongside many others that may produce divergent or even contradictory understandings. This can be extended beyond cosmological thought to cognition in general, through an understanding of its operation on multiple scales via various interacting processes. As the empirical contributions of this book have shown, this allows a more nuanced understanding of the ways in which individuals apprehend the world, from what constitutes an ontological or epistemological standpoint and the degree to which it is manifest in practice, to the nature of classification systems and their relationship with cosmology.

The second understanding of coherence is as an inherent property of cosmological theories rooted in systematic ontological principles and associated epistemologies. That is, from a position of reflection, reality must be coherent at the level of the cosmos for it to be explicable. For anthropologists developing explanatory theories of human behaviour and society, this amounts to understanding human culture as coherent with

psychology and evolutionary heritage, because maintaining culture (or the 'social') as causally detached from these other scales both ignores evidence and makes explanation (including accurate 'interpretation') impossible. This is even more the case for anthropological comparison, which is only possible through recognition of scales of encompassment, and thus causal connection, beyond the level of culturally specific beliefs and practices. Explanatory anthropology requires a coherent cosmology of its own.

In this respect, the task of an anthropologist is homologous to the task of a diviner. The intellectual projects of both arise from a capacity to reflect on how the contingencies of human behaviour can be explained in relation to the kinds of beings humans are, and how humans interact with the environments in which they find themselves. Both also wrestle with the problem of how to render human universals and particulars coherent. With respect to much sociocultural anthropology, however, the two projects diverge in their solutions, Eight Trigrams diviners having developed a logical approach to scale within and beyond the individual person that avoids the problem of treating the social and the subjective as entirely distinct domains of reality. Though for different practical ends and employing distinct content, the Eight Trigrams approach to scale nonetheless finds parallels in a 'consilient' approach to culture, cognition and evolution. Perhaps, as Charles Stafford (2020: 181) remarks concerning the salience of numbers in Chinese culture vis-à-vis anthropologists unenamoured with quantification, this might put anthropologists off Eight Trigrams divination. My hope, though, is that this point of comparison, in the anthropological tradition of deriving theoretical insight from ethnography, might persuade others that far from being simplistically reductive, a coherent, scale-focused understanding of cognition and culture presents a starting point for anthropology to develop effective explanatory theories and contribute ethnographic insight to interdisciplinary discussions.

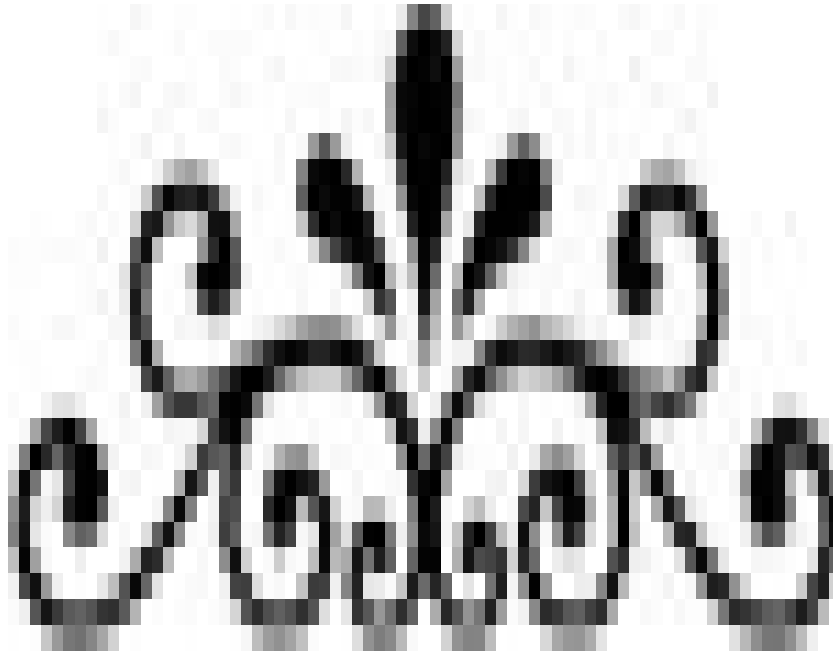
This approach offers the possibility of examining recurrent features of human culture in terms of analogical and homological responses to environmental conditions, broadly construed. As Maurice Bloch (2005)

laments, too often anthropology shies away from systematically addressing the big questions of human culture and society, leaving them to geographers, historians, archaeologists or psychologists. By considering culture and cognition in terms of scale, homology and analogy, anthropologists can ask such questions through large-scale, long-term historical comparison. Why, for example, did a homological correlative cosmology develop in China? What environmental conditions, from the spread of literacy to warfare and state formation to changing technology and agricultural patterns, might have influenced who was likely to entertain such ideas as solutions to human problems, and how readily they would have spread? These are questions both of the epidemiology of culture and its behavioural causes and effects. Comparatively, we might further ask questions like why such a cosmology became a salient component of centralised political power in early China, whereas despite the existence of similar ideas in the Mediterranean, the contemporaneous Roman imperial state adopted theism and ultimately monotheism. Can these be explained as homological responses to common features of state formation and empire? Conversely, we might ask how modernisation and its attendant economic, political and ecological consequences might provoke homologous cultural responses in different societies, and what this could mean for the future of specific ideas and practices and their epidemiological distribution.

These are ambitious questions, but they should not be beyond the scope of anthropological enquiry, whether applied to contemporary ethnography or long-term history. Comparison with Eight Trigrams cosmology has helped illustrate the importance of scale, process and mutual influence in addressing the multifarious, interactive causes of human behaviour. To take this forward, the guiding question for an explanatory, cosmically coherent comparative study of cultural phenomena is the same as that which motivates the Eight Trigrams diviner: what are the correlates?

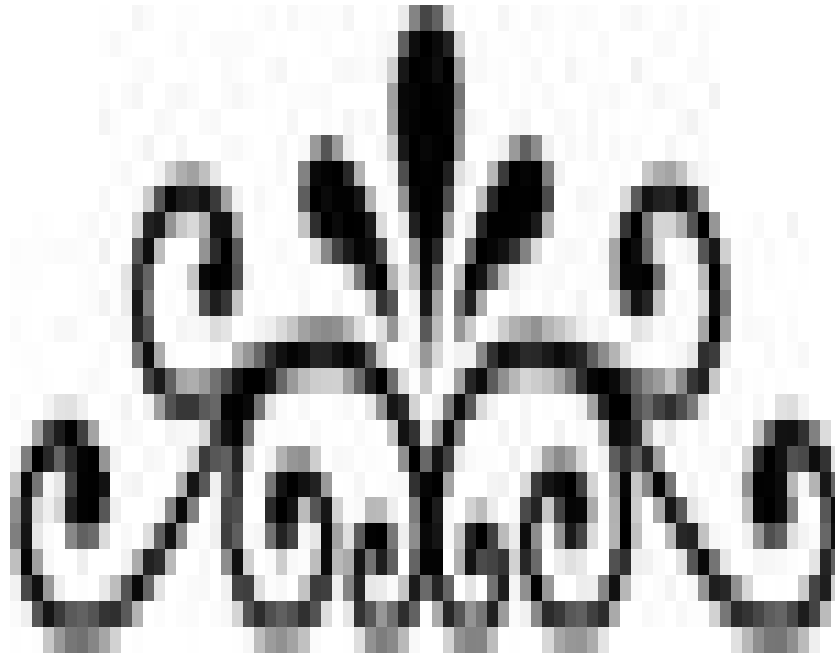
APPENDIX

The Content of the Yijing



Section	Content
《周易》Zhouyi	Sixty-four entries, each comprising :
Commentary on the Judgements 《彖傳》 Tuanzhuan	In two parts (upper 上 shang and lower 下 xia)
Commentary on the Images 《象傳》 Xiangzhuan	In two parts, as above. A commentary on the images
Appended Phrases or Great Commentary 《繫辭》 Xici or 《大傳》 Dazhuan	In two parts, as above. Wide-ranging commentary on the Yijing
Words of the Text 《文言》 Wenyan	A commentary on the first two hexagrams
Explaining the Trigrams 《說卦》 Shuo Gua	An exegesis of the structure and content of the trigrams
Hexagrams in Sequence 《序卦》 Xu Gua	An exegesis of the logic of the sequence of the hexagrams
Hexagrams in Irregular Order 《雜卦》 Za Gua	An ordering of the hexagrams based on their meanings

GLOSSARY OF KEY CHINESE TERMS

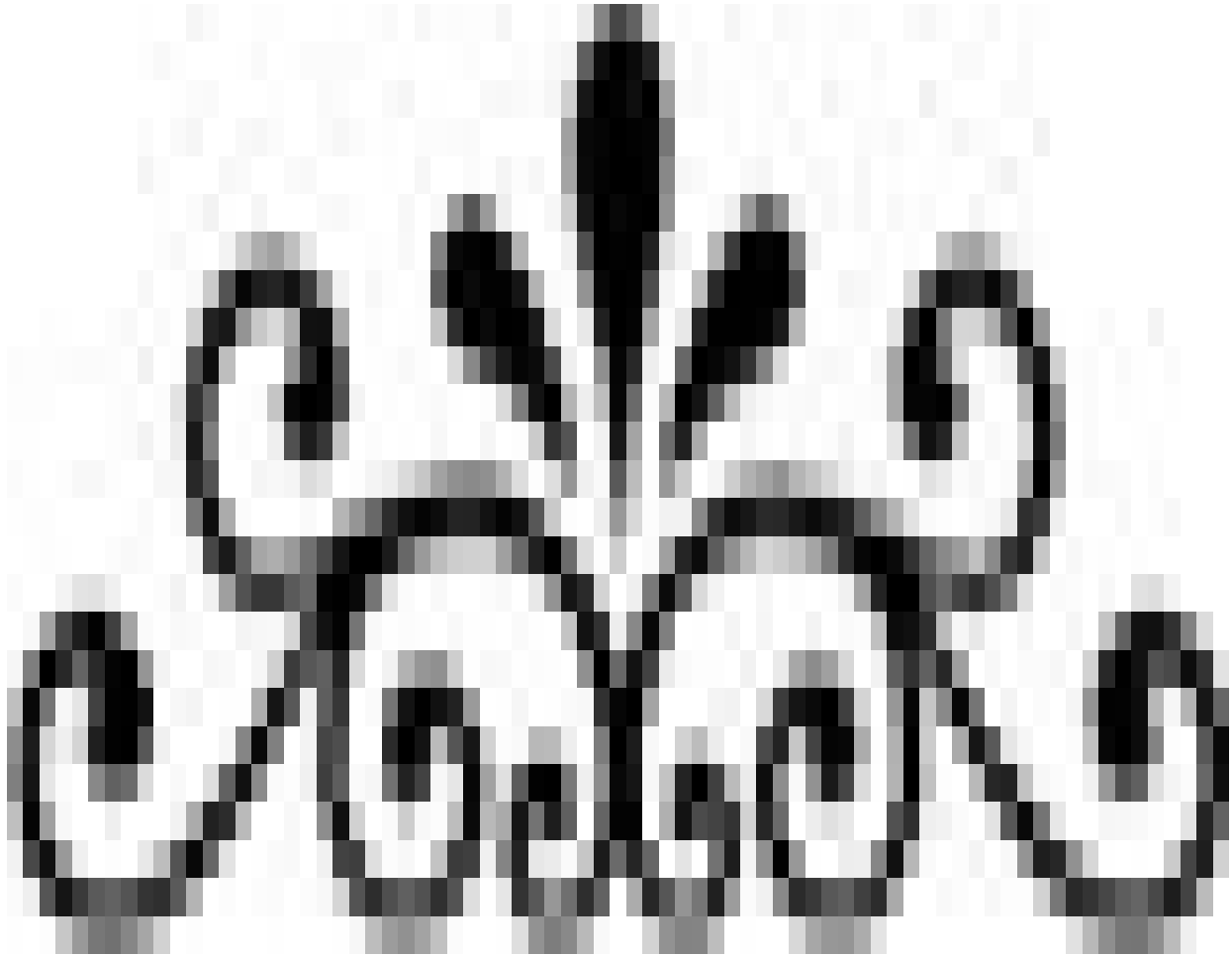


八宮	bagong The Eight Palaces used to classify the hexagrams in six lines prediction.
八卦	bagua The Eight Trigrams (卦 gua) of the Yijing 易經.
八卦預測	bagua yuce Eight Trigrams prediction.
八字	bazi Eight characters, denoting the year, month, date and two-hour period of one's birth according to
變卦	biangua Changed Hexagram, derived from a Principal Hexagram (zhugua).
辟邪	bixie To ward off evil.
抽籤	chouqian Stick divination, a common practice involving shaking a pot of sticks until one emerges. TI
傳統	chuantong Tradition.
春秋	Chunqiu 'Springs and Autumns' period, 771–476 BCE.
錯卦	cuogua Interlocked Hexagram, derived by manipulating a Principal Hexagram (zhugua) or Changed
道	dao The 'Way', governing principle of the cosmos and cosmic change.
道教	daojiao Daoism (religion).
大師	dashi Master.
地	di Earth.
地支	dizhi See 干支 ganzhi.
发财魚	facaiyu Parrot cichlid, lit. 'wealth fish', hybrid fish kept in aquaria.
風水	fengshui Geomancy, focusing on harmonising and promoting auspicious 氣 qi through the arrangement
風水魚缸	fengshui yugang Fengshui fish tank.
佛教	fojiao Buddhism.
福	fu Fortune.
改名	gaiming Name-changing, choosing a new auspicious name based on the correlative cosmological pro
感觉	ganjue Feeling.
干支	ganzhi Stems and Branches, referring to the Ten Heavenly Stems (天干 tiangan) and Twelve Earthly
卦	gua A trigram or hexagram.
國學	guoxue 'National Studies', the study of the Chinese classics and 'traditional Chinese culture' (中國傳
	huaniao shichang Flower and bird market, market selling houseplants and pets.

花鸟市场	
互卦	hugua Mutual hexagram, a kind of hexagram derivable by manipulating the lines of a Principal Hexa
火	huo Fire, one of the Five Phases (五行 wuxing).
甲骨文	jiaguwen Oracle bone script.
金	jin Metal, one of the Five Phases (五行 wuxing).
京房	Jing Fang Western Han scholar (78–37 BCE), creator of the attached stem (納甲筮法 najia shifa) sys
精神	jingshen Spirit.
克	ke ‘Conquest’ of one Phase of qi 氣 by another.
科學	kexue Science.
科學的	kexuede Scientific (also meaning systematic).
理	li Principle.
靈魂	linghun Approximates to ‘soul’, separable from but of common substance with the body.
六冲	liuchong Six Conflicts between hexagram lines based on their Earthly Branches, used in six lines pre
六合	liuhe Six Accordances between hexagram lines based on their Earthly Branches, used in six lines pre
六兽	liushou ‘Six beasts’, correlates used in hexagrams based on the relationship between hexagram qi and
六爻预测	liuyao yuce Six lines prediction, a form of Eight Trigrams prediction. See also 納甲筮法 najia shifa.
龙井	longjing A type of green tea produced in Hangzhou.
龙鱼	longyu Arowana, lit. ‘dragon fish’, large freshwater fish of the genera Scleropages and Osteoglossum
梅花易數	meihua yishu Lit. ‘plum blossom change mathematics’, a method of deriving hexagrams through numer
迷信	mixin Superstition.
迷信的	mixinde Superstitious.
木	mu Wood, one of the Five Phases (五行 wuxing).
納甲筮法	najia shifa Attached stem divination, based on correlating the lines of the Yijing’s hexagrams with th
能量	nengliang Energy.
能量守恒律	nengliang shouheng lü Law of the conservation of energy.
年年有余	niannian you yu To have abundance year after year.
騙人	pianren To swindle or deceive people.
氣	qi Basic energy substance that composes the cosmos in Chinese correlative cosmology.
氣場	qichang Qi-field.
氣功	qigong Breathing and martial arts exercises focused on the control of bodily qi.
麒麟	Qilin An auspicious mythical creature with a dragon-like head, scales, hooves and antlers, sometimes
起名	qiming Name-giving, choosing an auspicious name based on the correlative cosmological properties
秦	Qin Qin dynasty, 221–206 BCE.
清	Qing Qing dynasty, 1644–1911 CE.
人	ren Humanity; person.
肉體	routi The corporeal body.
三才	sancai The Three Powers in Chinese correlative cosmology, Heaven 天 tian, Earth 地 di and Human
商	Shang Shang dynasty, c.1600–1046 BCE.
身體	shenti Body.
生	sheng ‘Production’ of one Phase of qi 氣 by another.
生態系統	shengtai xitong Ecosystem.
神奇	shenqi Mystical, numinous.
師父	shifu Master (form of address).
十翼	Shi Yi Ten Wings, commentaries added to the 周易 Zhouyi in the canonised Yijing.
水	shui Water, one of the Five Phases (五行 wuxing).
說卦	Shuo Gua Explaining the Trigrams, one of the Ten Wings (十翼 Shi Yi) commentaries included in th
舒服	shufu Comfortable.
算命	suanming Lit. ‘fate calculation’, general term for fortune telling practices reliant on correlative metho
算命先生	suanming xiansheng Lit. ‘Fate calculation man’, a diviner.
太極	taiji The Supreme Ultimate (cosmic unity of yin and yang qi).
天	tian Heaven.

天干	tiangan See 干支 ganzhi.
天人合一	tian ren he yi 'Heaven and humanity are joined as one'.
提醒	tixing reminder/to remind.
土	tu Earth, one of the Five Phases (五行 wuxing).
彖	tuan Judgements, here referring to the hexagram judgements in the Yijing's Commentary on the Judg
萬物	wanwu The Ten Thousand Things, i.e. everything that exists.
無極	wuji The 'limitless', cosmic state of undifferentiated qi.
五經	wujing See 四書五經 sihu wujing.
五行	wuxing Five Phases of 氣 qi (Metal 金 jin, Wood 木 mu, Water 水 shui, Fire 火 huo, Earth 土 tu).
象	xiang Image (including hexagram images described in the Yijing's Commentary on the Images 象轉
像	xiang Resemblance/to resemble.
相信	xiangxin To believe.
係辭	Xici Appended Phrases (上 shang and 下 xia), two of the 十翼 Shi Yi (Ten Wings) commentaries.
形象思維	xingxiang siwei Figurative thought, emphasis on imagistic associations of hexagrams emphasised by
玄學	xuanxue Metaphysics or 'Dark studies', a combination of Confucian and Daoist approaches.
玄極易	xuanji yi 'Dark ultimate changes', approach to divination used by Ma Jianglong.
玄極拳	xuanji quan 'Fists of the Dark Ultimate', exercise regime based on the Yijing's hexagrams devised by
陽	yang Active principle.
養生	yangsheng nourishing life (well-being practice).
爻	yao A component line of a trigram or hexagram (卦 gua).
一帆風順	yi fan feng shun Smooth sailing.
易經	Yijing The Book of Changes, here referring to the 周易 Zhouyi plus the Ten Wings (十翼 Shi Yi) coi
陰	yin Yielding principle.
用神	yongshen Categories of relationship used in six lines prediction.
魚	yu Fish.
余	yu Abundance.
元神	yuanshen Primordial spirit/soul.
預測	yuce Prediction; to predict.
預測者	yucezhe Predictor/diviner.
宇宙	yuzhou Cosmos.
中國	Zhongguo China.
中國傳統文化	Zhongguo chuantong wenhua Traditional Chinese culture.
周易	Zhouyi The Zhou Changes, the original core text including the hexagrams, later canonised as the 易經
周易熱	Zhouyi re 'Yijing fever', the massive revival of popular interest in the Yijing in the 1980s and 1990s.
主卦	zhugua Principal Hexagram, the one initially derived from a divinatory procedure.
准	zhun Accurate.
綜卦	zonggua Composite Hexagram, derived by manipulating a Principal Hexagram (zhugua) or Changed
宗教	zongjiao Religion.

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