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## Chapter 1

# Introduction: Medicine in Translation between Science and Religion

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A growing body of scholarship from the fields of history, anthropology, science and technology studies, and philosophy addresses the translation of scientific epistemologies as practices between and across cultures. Nowhere is this engagement more compelling than in discussions of medicine: what it consists in, how its claims to knowledge and efficacy are validated, how it allows for innovation and at the same time advocates a consistent empirical position, and how it is configured within cultural and national imaginaries and global markets. Likewise, socio-cultural and colonial studies of medicine reveal how biomedical science – translated into a variety of clinical, technological, sociological and political interventions aimed at improving the well-being of its ‘target’ populations – has had a tremendous impact at local, regional and global levels: from public health efforts in the early days of colonialism to the era of post-war health development campaigns, and now through the globalization of pharmaceutically-oriented clinical research.

Such inquiries have also given rise to new analyses about the problem of defining ‘science’ and locating its origins in ‘Western,’ i.e., European-American, cultures. Arguments over what constitutes ‘modern science’ – and, by extension, ‘modern medicine’ – have often become political rather than empirical battles. As scholars in science studies have shown (such as Latour 1999, Needham 1956, Harding 2006, Prakash 1999), this moment in our intellectual history, and the scholarship it is producing, recalls the metaphor of an onion whose layers of skin never seem to end. The more layers get peeled away, the more new layers emerge, revealing the grounds upon which scientific truth claims are diaphanous, and contingent on a politics of knowledge. That which is labelled ‘modern science’ (or, for that

matter, biomedicine) rarely looks the same from one location, time and culture of its practice to the next (see Traweek 1992, Verran 2001, Lock 2001). Furthermore, the dichotomization and historicization of healing practices into those deemed advanced modern 'scientific medicine' and those that are provisionally labelled 'religious', 'traditional' or 'alternative' medicine is by now recognized as itself a product of a specific epistemological view – a view deeply embedded in the Enlightenment and in colonialist engagements with the natural and social world (see Prakash 1999, Nandy 1990, Langford 2002, Adams 2002a, 2002b). The infiltration of biomedical science into locales far from its sites of origin – a phenomenon brought about by colonialism, international travel, development aid and the market dissemination of technology – have also been well studied in many fields.

Scholarship that attempts to show how ideas and practices of science in general, and biomedicine in particular, are being shaped by their engagements on non-Western grounds is comparatively abundant if one includes explorations of public health and international health development (cf., Nichter 2008). And yet, despite this growing interest, there are still relatively few studies that document the relations between science, medicine and religion – as ideas, practices, technologies and outcomes influencing each other – across cultural, national, geographic and historically situated terrain. *Medicine between Science and Religion: Explorations on Tibetan Grounds* makes its contribution here. Rather than framing our ethnographies and analyses as instances that reveal the (hegemonic) impacts of biomedicine in Tibetan contexts, we are interested in showing how this engagement works in (at least) two directions. Despite their dominance in international public health and clinical research systems worldwide, biomedical science and practices are being shaped and re-shaped through their interactions with diverse Tibetan settings. These modern Tibetan contexts – the milieu in which healing encounters, clinical research, institutional development and medical history play out – are further characterized by an intimate and interwoven connection between culture and religion. Similarly, Tibetan medicine, as it engages biomedical and scientific technologies and beliefs, is often re-envisioned in ways that reflect these translations of science.

The contributions to this volume explore the impact of Western science and biomedicine on Tibetan grounds – i.e., among Tibetans across China, the Himalayas and exile communities – as well as in relation to globalized Tibetan medicine. We discuss the ways in which local practices change,

how ‘science’ is undertaken and scientific knowledge is produced in such contexts, and how this continually hybridized medical knowledge is transmitted and put into practice. As such, this volume also reveals ways in which modern science is sometimes ‘Tibetanized’ within clinical and research practices around the world.

## **A Sowa Rigpa Sensibility**

One of the key motivations for this book is to address the tendency to see the problems of encounter and translation between medical traditions as battle zones, in which, for example, using biomedical notions of disease or therapy means, *sui generis*, excluding Tibetan notions or vice-versa. Rather, each chapter in *Medicine between Science and Religion* helps to map the bi-directional, and sometimes multidirectional, flow of ideas and practices across medical worlds. Most ethnographic analyses of science and medicine in cross-cultural encounters begin with analytical frameworks adopted from biological science or social science methodology, which can presume an objectivist and empirical reporting of encounters without recognizing that the very notions of objectivity and empiricism are themselves already embedded in a specific kind of modernity and scientific discourse (Shapin and Schaffer 1989). In these accounts, biomedicine (as a normative ideal and, often, a locally specific set of practices) offers the analytical framework for comparison, as if the encounter with the ‘other’ on medical terrain always presupposes the need for an engagement with the biological sciences that derives first and foremost from a modern, Western viewpoint.

Instead of starting with the supposition that such translations of medicine across cultures must begin with, or emerge from, a biomedical frame, we adopt and apply an approach that begins with *sowa rigpa*. The ‘science of healing’ – as *sowa rigpa* is most often translated and used to denote the foundations of traditional Tibetan medicine – is our epistemological starting point, our orientation.<sup>1</sup> We chose the terms ‘science of healing’, from among the various possible translations of these Tibetan words, in order to deliberately complicate the notion of science itself, as we explain further below. We also chose this translation to distinguish our thread of analysis from what might be called the ‘Mentsikhang model’<sup>2</sup> of standardized Tibetan medicine. Our use of the term *sowa rigpa* signifies more than the classical body of Tibetan medical knowledge, as expounded in the *Gyüshi* or the *Four Tantras*, to include other forms of Tibetan healing

knowledge and practices that have either become marginalized within modern institutions of Tibetan medicine or have been seen as belonging to the domain of ‘religion.’ We start from the position of troubling the notion of ‘science’ by making it the leaping off point for discussions of *sowa rigpa*, its epistemological grounds and its multivalent sensibilities. We argue that our appropriation of a *sowa rigpa* ‘sensibility’ facilitates an understanding of ‘medicine’ between ‘science’ and ‘religion’ in polysemous ways, which include being self-reflective of our own (Euro-American) points of view. Such a sensibility begins with the processes of looking at medical and social worlds – participating in them, empirically knowing them, and being conscious of their effects on health and well-being. In this sense, the concept of a ‘science of healing’ is appropriate for the territory we intend to chart, in methodological and analytical terms.

Given our focus in this volume on Tibetan medicine and its interaction with Western medicine or what we call ‘biomedicine,’ a *sowa rigpa* sensibility becomes a useful analytical approach precisely because the deeper one reflects on the Tibetan words that comprise this phrase, the more complex translation becomes. The analytical concept of a ‘science of healing’ lends itself to multiple layers of epistemological exploration and commitment (Meyer 1981, Schrempf 2007a, Pordié 2008). *Rig*, as a signifier, has a host of meanings: from knowledge in general, to intelligence, from science to creativity. In Tibetan, *rigpa* or *rigñā* refers to most scholarly fields of study available in monastic settings, including medicine. As a classificatory concept, then, it makes no distinction between scientific and religious knowledge. Similarly, *sowa* most commonly alludes to curing or healing; it also means to nourish, repair or comfort, and refers to ‘health’ itself. Together, the words signify a concept organized around the phrase’s objective: to make well and complete. It brings together knowledge, intelligence and creativity in order to serve the goal of making health, healing, curing, nourishing and comforting achieve a balance that is both internal (bodily) and external (body in relation to environment). However, we also note that doctors of Tibetan medicine might define ‘science’ differently and in various ways.<sup>3</sup>

What emerges, then, from this close reading of the term *sowa rigpa* is a larger sense of meaning that makes *sowa rigpa* useful as a technique of analysis and practice, and a way of approaching our subject matter in this book. Specifically, we see the notion of *sowa rigpa* as a way of talking about what it is that our contributors do in their own work and analysis. Beyond this, *sowa rigpa* is a way of thinking about how to approach the study of any

medical system, not just Tibetan medicine. In sum, the fact that *sowa rigpa* emerges from the Tibetan vernacular is at once crucial and, in some ways, secondary. We suggest that other such epistemological starting points could emerge from other ethnographic contexts. For us, to begin here seems the most conceptually fruitful and methodologically sound procedure. Put another way, *sowa rigpa* is epistemologically subtle, crossing as it does the boundary between science and creative practice, between knowledge and experience. A *sowa rigpa* sensibility is efficacious both in its coherence and its permeability. Although one could argue that this may be true for most, if not all, medico-empirical traditions, we believe that *sowa rigpa* has particular qualities worth delineating.

In ethnographic terms, *sowa rigpa* is the phrase most often used by the diverse array of practitioners represented in this volume (and beyond) for what they practice. As we discuss in more detail below, the phrase also implies a moral framework which such practitioners abide by. In this sense, *sowa rigpa* orients us towards a fairly coherent set of theoretical and cosmological presuppositions that have held true among ethnically (and culturally) Tibetan healers for many centuries, across diverse geographic and cultural terrains. The phrase *sowa rigpa* is found in the *Four Tantras*, texts which forms the basis of Tibetan medical theory; it is also found in the ritual initiations given to some medical practitioners.

Here it is worth explaining to the non-specialist some of the basics of the ‘science of healing’. An exegesis of Tibetan medicine, in its most basic forms of coherence, always begins with an understanding of the five cosmo-physical elements (*jungwa nga*) of wind (*lung*), earth (*sa*), fire (*mé*), water (*chu*) and space (*namkha*) in relation to the three *nyépa* of wind (*lung*), bile (*tripa*) and phlegm (*péken*). Commonly translated as ‘humours’, *nyépa* is more accurately defined as ‘faults’ or ‘deficiencies’ (for more on this, see Gerke, in this volume). Just as the five elements are integral to an understanding of the non-essential nature of all material existence, so too can the *nyépa* be seen as the underlying presence of a moral cosmology in material form (by way of *lā*, or *karma*). According to the *Gyüshi*, the three *nyépa* correspond to the ‘three poisons’ (*dusum*) of Tibetan Buddhist tradition – ignorance, anger and desire – while the element of space is interpreted as consciousness (*namshé*).<sup>4</sup>

The choreography of interdependence between the *nyépa* and the five elements (in consort with the three bodily channels, or *tsasum*, and the seven bodily constituents, or *lüzung dün*) enable physiological function. A philosophy of cosmo-physical balance (or imbalance, as the case may be)

is reflected in methods of diagnosis, from the mechanics of pulse and urine analysis to the types of questions asked of a patient by a practitioner during an examination. Furthermore, Tibetan medicine is rooted in the idea that there are both proximal and ultimate causes of disease or imbalance. Therapeutic interventions are not only pharmaceutical (using formulas that combine animal, mineral and vegetal substances), but also dietary or physical (such as massage or moxibustion). Medical interventions can also emerge through ritual, from the performance of exorcisms to instructions in specific meditative or yogic practices or *mantra*. This aspect of Tibetan medicine has often been the most challenged by interactions with biomedicine, and as part of modernization and the politics of secularization occurring in different locales. Likewise, the production of Tibetan medicines and the training of practitioners often involve engagements in religious practice at a number of levels. Most *sowa rigpa* practitioners and Tibetan patients view Sangyā Menla, the Medicine Buddha, as the primordial source of Tibetan medical knowledge. As interaction with biomedicine increases, many of the wider practices that are associated with religion in Tibetan medicine are looked upon with more reflexive scrutiny.

At the same time, we recognize that *sowa rigpa* both refers us to and orients us towards a wide range of differences within what might be called a healing tradition, reflecting a tremendous adaptability to local environments, cultural differences, spiritual and practical resources for practitioners and patients, as well as larger socio-structural and even political demands.<sup>5</sup> In Tibet proper, one could historically and in the present find a huge variety of practices among healers – from individuals skilled in ritual or religious matters to those with practical pharmacological and compounding knowledge, from healers trained in monastic settings to those trained in a domestic tradition by a family lineage of practitioners. Expertise varies even though all such practitioners heal patients. There is, in fact, no generic Tibetan word for ‘healer’. Various terms, such as *menpa* (literally ‘the one with medicine’ or ‘doctor’), *amchi* (‘doctor’, a loan word from Mongolian), *mopa* (‘diviner’, specializing in ritual diagnosis and healing), *lhapa* (‘oracle’ or ‘spirit medium’, also specializing in ritual healing) and *ngagpa* (‘Tantric practitioner’, another type of ritual healing specialist, sometimes called an ‘exorcist’), all refer to specific and distinctive bodies of knowledge and skill.

Despite these differences, the Tibetan practitioners we refer to in this book are all skilled in the *techne* – the art and science – of *sowa rigpa*, in the sense that they are informed by basic philosophical and cosmological tenets

of this healing science. We recognize, however, that even in Tibet historically and at the present time, there is and has been a good deal of contestation over what Tibetan medicine entails (or should entail), and which types of healing practices are considered legitimate, let alone 'scientific'. This emerges not only from processes of distinguishing professional boundaries, but also as a result of engagement with politics, with new forms of medicine, such as biomedicine, and with social trends, all of which challenge some techniques more than others. For example, healers who become possessed, such as *lhapa*, are often stigmatized by various authorities (namely, state or monastic institutions), while practitioners who adopt a radical materialist view towards the causes and conditions of illness or who are oriented explicitly towards a profit-driven approach to making Tibetan formulas might be lauded or reviled, depending on context.

In this volume, we see similar patterns of permeability and flexibility in the practices of *sowa rigpa*. Despite allegiance to core epistemological principles, there is a wide variety in what is emphasized in the practices of Tibetan medicine in different locales. In Russia at the turn of the twentieth century, massage techniques were emphasized among Tibetan medical practitioners (Saxer, in this volume). The focus on twenty-first-century United States is on the meditative and 'spiritual' aspects of Tibetan medicine (Chaoul, in this volume). In Xining (Amdo) in Eastern Tibet, medicinal baths are the most popular medical therapies (Adams et al., in this volume).

In her work on Traditional Chinese Medicine (TCM), anthropologist Mei Zhan proposes a process that she calls 'worlding' (2009) to describe how TCM has a presence far beyond its sites of origin in the world, and that its practitioners are self-consciously aware of the challenges and possibilities afforded by this expansion. We extend this argument here. The 'worlding' of Tibetan medicine reveals that it has the capacity to be shaped and transformed, adapting to local needs and expectations, while still holding fast to a coherent set of principles that define its epistemological foundations (Cuomu, in this volume). This quality of perseverance and flexibility points to what we identify as a *sowa rigpa* sensibility. We prefer this term to other analytical referents, such as 'modern', 'hybrid' or 'syncretic', because we wish to preserve the analytical distinction between medical sensibilities and their differential capacities to be flexible and adaptive on the ground. It is an epistemological distinction rather than a question of theory that we want to focus on, thus our use of the term 'sensibility' instead of 'theory'. In this reading or in our use of the phrase '*sowa rigpa* sensibility', we are not

implying that other medical traditions are not flexible or adaptive; rather, our focus in this text is on how Tibetan medicine shows these qualities in its own ways across a broad range of practitioners, geographic locales, and political, cultural and historical time frames.

Bates (1995), Kuriyama (1999) and Farquhar (1992), among others, have argued that the epistemological foundations of knowledge make a difference not only in how medicines are practiced, and how these practices heal, but also in how they help practitioners interpret and make sense of other kinds of medical practices in their midst. That Tibetan medicine is informed primarily by the idea of a 'science' or *rigpa* of healing gives it an adaptability which, we suggest, emerges from the wider context in which *rigpa* is a special form of knowledge and practice in Tibet more generally. To become knowledgeable in a *rigpa* – one of the many fields of knowledge taught inside and outside monastic settings by way of oral instruction, written texts and regular practice – also means becoming capable of living one's life differently. That is, for a wide variety of Tibetan practitioners, the acquisition of *sowa rigpa* is more than an intellectual endeavour, more than adding knowledge to an individual repertoire of expertise. Becoming knowledgeable in *sowa rigpa* is ideally a way to become skilled at a certain way of life. Saxer and Kloos refer to this in their chapters. They explore how, in entirely different historical times and places, Tibetan medicine has been about a 'practice of living' for various types of healers that, when done well, has also been a way of keeping other people living, and living healthily.

If we understand *sowa rigpa* as an epistemology, it bears resemblance to Max Weber's portrayal of modern science as 'a vocation'. More than a set of truth claims or facts, science was, for Weber, a way of looking at the world and a way of being in the world. We suggest the same is true for those who undertake *sowa rigpa* as a way of life and it is what we hope to identify as a methodological and analytical starting point for comprehending Tibetan medicine in this volume. This is not to say that all practitioners are skilled, trained or capable in the same ways, or that there are not differential capabilities among practitioners. Rather, it is to suggest that perhaps *rigpa* implies a different kind of engagement with knowledge than is typical for biomedical or Western forms of science precisely because it simultaneously suggests an experiential notion of knowledge, combined with a strong ethics and morality that defines a good healer. While it is clear that all medical traditions expect some sort of expertise and vocational will (including ethical will) from their practitioners, the distinctions between these domains of expertise and will are significant, in both form and substance.

The notions of resilience and coherence – of internal perseverance despite widespread variability and local adaptability in its practices – that are encompassed by *sowa rigpa* resemble in some ways the kinds of engagements with the world espoused by Buddhism more generally. Historians of science suggest the same kind of resilience and perseverance is true for modern science (Kuhn 1970). But the content differences matter: holding fast to the truth of the five elements, the non-essential nature of life, the perceptual basis of emotions etc., might be thought of as making sense in a coherent knowledge system while enabling flexibility and individuality in a manner that differs radically from biomedical science. Although encounters and translations between these forms of knowing the world, and of healing, create novel points of overlap and raise interesting questions, we suggest in this volume that one of the undeniable consequences of the worlding of Tibetan medicine is that this *sowa rigpa* sensibility becomes visible to, and is practiced by, new audiences in new ways.

The chapters of this book show that when faced with the challenges of engaging with biomedicine, professionals of Tibetan medicine are often able to absorb and restructure while continuing to adhere to basic Tibetan medical principles. Sometimes this is visible in the ways that practitioners diagnose patients, attending to local problems and *nyépa* logics of suffering. At other times it is seen in how Tibetan doctors and researchers make sense of new technologies (such as the use of animal testing, laboratory chemistry, etc.) to affirm or test the efficacy of Tibetan medical practices (Adams et al., in this volume). It is visible when practitioners insist on using ritual means of ensuring potency even when such practices are rendered irrelevant to biomedical researchers (Craig, in this volume). Sometimes a *sowa rigpa* sensibility emerges not just in practitioners but also in patients when, for example, consultation with diviners is assumed to be as efficacious as obtaining antibiotic injections with syringes (Schrempf, in this volume), or when labouring women assume that it is ‘safer’ to deliver at home than in a clinic because of their knowledge of how to protect themselves from the potential risks of delivery (Gutschow, in this volume). Sometimes, a *sowa rigpa* sensibility is visible in practitioners’ willingness to make use of biomedical terminology to appease client expectations and to engage in acts of translating between medical worlds (Gerke, in this volume). Most strikingly, it becomes visible in biomedical research projects that try to make randomized, controlled ‘sense’ of Tibetan theories of the *nyépa* or the benefits of Tibetan therapeutic techniques (Chaoul, in this volume). We might call these instances of the ‘worlding’ of not just Tibetan

medicine but of *sowa rigpa* itself. The complex process of making sense of medical claims and evidence across cultural worlds is shown as one that is deeply invested with broad epistemological claims, even when there is disagreement about such claims (Cjaza, in this volume) and even when they require practitioners to re-imagine and re-invent their own practices in new ways (Kloos, in this volume). The chapters of this book reveal a kind of flexible and enduring sensibility that is perhaps more ‘built-in’ within Tibetan medical starting points than it is in other traditions.

The chapters in this volume explore how to study not only contemporary Tibetan medicine but also medical systems more generally, insofar as they offer insights in relation to epistemology, claims about truth, and particularly an approach to studying efficacy. Even suggesting the notion of an internal coherence that absorbs, adapts and conforms to the exigencies of its local practices resists epistemological similarity with what are conventionally taken to be biomedical, scientific modes of truth-making. As documented by numerous social theorists of science such as Thomas Kuhn, Bruno Latour and Sandra Harding, modern science quite often forgets or loses sight of its past, burying older theories to make way for the new. In comparison, Tibetan medical adherence to its foundational theories might seem somehow ‘unscientific’ to the Western mind. Where biomedicine often progresses by displacing foundational theories, or modifying them to be virtually unrecognizable (from cellular theories to genetic theories, for example), Tibetan medicine tends to aggrandize its knowledge production by sustaining the coherence of its core principles, making room for the accommodation of new knowledge by fitting it into pre-existing frameworks. Although one might argue for more similarity across medical traditions with regards to ideas about flexibility and change (for example, that Aristotelian notions foundational to Western medicine are as present in modern biomedicine as Tibetan theories are in contemporary Tibetan medicine), we argue for a more subtle reading of the differences that could be seen as epistemological. Innovation in Tibetan medicine often involves the upholding of traditional insights (in fact, double checking with pre-existing literature is a priority for Tibetan medical researchers), and this referencing of past truths gives Tibetan medical efforts at modernization a different feeling than one finds in most Western scientific endeavours, yet must be considered scientific in its own right. Thus, starting with a notion that emerges from within Tibetan traditions might help us move beyond the science versus non-science debates that so often surface in discussions of ‘modern’ versus ‘traditional’

medicine, while also proposing a model of efficacy that hinges on different notions of truth-making.

In addition to the ways in which this volume contributes to social studies of science in a general sense, it also addresses the relationship between science and religion, and science and Buddhism, particularly in the Tibetan context. Garrett (2008) notes that from the 1980s onwards historians of science moved away from the shortcomings of a 'conflict thesis' between science and religion towards accepting a 'complexity thesis'. She concludes that in both Tibetan and European history 'the definitions of science and religion and the relationships between them are in flux and inherently contextual' (2008: 5). However, as Lopez (2008) points out, the development, proliferation and appropriation of Buddhism in the past 150 years are marked by its modernist orientation – the sense that it is a science or a philosophy, rather than a 'religion' in the classical sense. This view brings with it multiple dangers, particularly the simplification of something that is much richer and broader in scope, i.e., a lived religion in all its complexity, into a somewhat sanitized and universalist 'philosophy' or, as has become popular today, a 'science of mind' (ibid.). Yet, somewhat paradoxically, the understanding of Buddhism as a 'science of mind' might also facilitate how many Tibetan doctors view their medical practices today, including the worldly value of such practices.

One might also be swayed by the ethnographic pull towards seeing a secularization of Tibetan medicine in China and a scientization of Buddhism in the West, as these have been documented in ethnographic and historical accounts. These insights themselves bring to the forefront questions about the attempts to understand religion as science and science as religion while at the same time holding them to be dichotomous. Our inquiry hopes to make productive use of this problematization itself, noting that ethnographic record shows evidence of both. There is as often slippage between medicine and science as there is evidence of totalizing claims for their differences, often for reasons that often have more to do with politics and social practice than with medical or clinical stakes.

Scholars of medical anthropology, the history of medicine, and even Tibetan studies have often been weighed down in thinking about and making sense of medical pluralism, particularly by focusing on patient-doctor interactions and diagnostic rationalities, setting medical epistemologies in a framework of competition, so-called 'hierarchies of resort' (Romanucci-Schwartz 1969) or hegemonic effacement. Meanwhile, social studies of science and globalization have explored how different

knowledge systems come to engage with each other, and what the stakes are for people involved, within the context of larger political, economic, historical and cultural forces (Nandy 1990, Marglin and Marglin 1996, Prakash 1999, Verran 2001, Latour 1984). While some scholars have undertaken studies of medical systems in relation to these issues (Leslie and Young 1992, Langford 2002, Farquhar 1992, Cohen 1998), we see a need to invigorate the study of medical pluralism and ethnomedicine with more of the insights emergent from the cross-disciplinary efforts this book represents. Thus, we explore in this volume the interactions that emerge through the perspective of practitioners, patients, and their many conceptualizations and theories, as well as through an understanding of the material substances they use.

Still, even studies of traveling science often overlook the possibility of engaging local epistemological framings that may be most suitable to the ethnographic materials they hope to study. Our approach is to the use a concept that emerges from the ethnographic focus of our work in order to make sense of the materials we venture into in these chapters, in part as a way of suggesting future directions in our field. That our volume illustrates how Tibetan medicine becomes a partner with biomedical sciences – in some sense ‘Tibetanizing’ these practices of science – suggests that this starting point is consistent with what we see ethnographically.

## **Between Science and Religion: Focusing on Tibetan Medicine**

One might ask why we have chosen in this volume to focus on what, at first glance, might seem like only one cultural system of knowledge and practice and its relation to and with biomedicine. We could answer such a question in two ways. First, we might reiterate that neither Tibetan medicine nor biomedicine are complete or uniform categories; they articulate in diverse ways across geographic and epistemological spaces. Second, although an edited volume of this nature could have engaged with several so-called Asian medical systems, we have chosen to focus on Tibetan medicine for several reasons. Primarily we believe that an intellectual commitment to one already diverse set of medical, social and scientific practices across a wide geographic and epistemological terrain encourages a certain kind of theoretical depth that is not possible when engaging in a more comparative exercise – not only between biomedicine and its ‘others’ but also across

different non-Western medical systems. Furthermore, Tibetan medicine is not only known as a scholarly medical tradition (see Bates 1995) with many centuries of technological, clinical and pharmacological innovations; it also survives today as a complex medical resource across many Asian nations – from India and Bhutan to Mongolia, China, Buryatia, Russia – as well as in Western Europe and the Americas. Furthermore, as each chapter illustrates, Tibetan medicine's own stories about its engagement with both other Tibetan healing traditions and Western empirical traditions is quite rich and worth exploring for a comparison with structurally similar Asian medical transformations in the future.

Thus, by focusing solely on Tibetan medicine, we offer an interesting glimpse into the complexities of working through an analytical framework that distinguishes 'religion' from 'science', despite the heuristic use of these terms in the title. For the purpose of this exploration, Tibetan medicine includes belief in spirits and protective *mantra* (Schrempf, in this volume) and the efficacy of exorcism and empowerment rituals (Craig, in this volume) to the practices of ascertaining quality of life inventories by way of biochemical stress tests, the absorption of Tibetan medicine in animal model laboratory research (Adams et al., in this volume), and the ethical posturing of exile physicians for whom medicine becomes a key to saving Tibetan culture and benefitting the world (Kloos, in this volume).<sup>6</sup> We suggest that the connections between these practices of medicine do not simply cohere around those theories of the *nyépa* or the 'five elements', although these are at some fundamental level connected to all of the practices we describe in the following chapters. Rather, we suggest that these diverse practices coalesce around what we call a 'morally charged cosmology', which is not simply Buddhist and yet is deeply rooted in Tibetan cultural concepts. Again, we are not claiming that other medical traditions are without a strong ethics or moral sensibility, but rather that our attention is on the particular contours of that which fall between religion and science, which emerge as rich, if problematic, categories in the case of Tibetan medicine. The chapters in this volume explore in more detail what we mean by such a morally charged cosmology, and what goes into claims that Tibetan medicine is, in fact, situated between religion and science. We also explore the complications of such a claim. For example, we note again that even translating the phrase *sowa rigpa* as 'science of healing' could appear problematic today because it recalls the distinction between religion and science. But, we argue, the translation would not necessarily be a problem for a Tibetan practitioner or a patient, or at least not in the same way as it would be for basic scientists or biomedical practitioners.

It is also important to remember the powerful role played by ‘religion’ within Tibetan cultural life. In this text, ‘religion’ encompasses everything from what might be referred to as folk beliefs and practices to the highly liturgical and literary aspects of monastic Buddhism in Tibetan society, as well as to other Tibetan religious traditions such as Bon. For these reasons, we prefer the phrase ‘morally-charged cosmology’ to that of ‘Tibetan Buddhism’. Given the underlying, though historically and contextually changing, connections between Tibetan religious and medical praxis, the very nature of this work requires an engagement with, and a reconsideration of, the facile religion/science dichotomy. The question of how religious this makes Tibetan medical practices themselves, however, is not easy to answer, and is one taken up by a number of the contributors to this volume.

Indeed, despite the large role played by Buddhism in Tibetan medical theory, particularly since the monastic institutionalization of Tibetan medicine from its inception and the culmination of this through the founding of the Chakpori Institute in 1696, it would be wrong to consider Tibetan medical theory to be purely religious, or purely Buddhist. However, one might refer to it as uniquely ‘Tibetan’ in the sense that it is re-produced in a culturally Tibetan environment and encompasses the breadth and range of various cultural and religious orientations found within that larger category and label. It is important to also call attention to the overriding presence and significance of the *Gyüshi* and its commentaries for at least the last three centuries. Many texts have played an important role in the shaping of Tibetan medicine in the Tibetan cultural world. But the *Gyüshi* has become increasingly taken as foundational for the past centuries, even more so today. The debate over this text’s religious versus scientific content is already large and complex. Similarly, the practices of biomedical science – particularly at sites, both historic and geographic, where these two systems of knowledge have been integrating – has created a self-reflexivity with regard to the definition of ‘science’ in ways that reveal an expanding discourse about the ways in which new medical techniques and practices accompanying modernization need to accommodate Tibetan medical ways of knowing. This, we argue, is, reflective of how medicine on Tibetan grounds is operating between religious and scientific epistemologies, at least as they are known to most Western scholars, and informs them both.

In this sense, the type of clear epistemological and political border between ‘science’ and ‘religion’ that is often viewed as a Western materialist (and, significantly, socialist Chinese) ideal is complicated in the Tibetan

case. This fact creates both problems and opportunities – points of convergence and disjuncture – as Tibetan medicine comes into dialogue with biomedicine in particular. Indeed, there is a history to this. Most significantly, ‘religious’ elements of *sowa rigpa*, and inquiries into practices of medical pluralism on Tibetan grounds more generally, are capable of revealing dynamics in which empiricism demurs to politicized and culturally embedded visions of ‘science’. As the chapters in this volume illustrate, boundaries between the ideological domains of ‘religion’ and ‘science’, as they are enacted through medical practice, are formed for reasons that have much to do with politics, nation building, economics, and other regimes of power and comparatively less to do with questions of epistemology, efficacy and empiricism.

It is also important to remember that the religious foundations of Tibetan medicine are by no means restricted to monastic settings. There are two great traditions of pedagogy in Tibetan medicine: institutional (including monastic settings and later more secularized institutions such as the Mentsikhang), and lineage-based (in which ‘lineage’ sometimes refers to religious lineage, family/patrilineage and/or teacher/student lineage). And yet numerous healers specialize solely in ritual divination, exorcisms or amulet provision, and claim to know little about making and practicing ‘medicine’ (*men*) in a broader sense. Others are skilled in the arts of compounding medicines or diagnosis but have never learned to perform ritual healings requiring communications with spirit beings. In addition, many ritual specialists can be found outside of the monastic context. *Ngagpa*, for example, are a class of ritual specialists often translated as ‘tantric householder priest’ who, despite existing outside of monastic settings, have received transmissions (*lung*) and initiations (*wang*) from teachers, sometimes including those who specialize in *sowa rigpa*, and therefore have the ability to perform and prescribe both ‘medical’ and ‘religious’ therapies. Despite the fact that these practitioners are differently skilled, they are unified by their common world-view of a morally charged cosmology. Even those who compound medicines and who know no rituals and have no formal Buddhist training presume that the five elements that make up the cosmos, as well as the astrological guides used to understand the potencies of ingredients on the basis of these elements, are real and have internalized this cosmology.

One also glimpses the coherence of this cosmology among patients. A moral cosmology is not just theoretical: it is visible in how people in culturally Tibetan contexts can move throughout the world – in how they

eat, how they behave, and the assumptions that their actions produce good or bad health. Yet it is not only Tibetans who come into this cosmological sphere, although according to diverse contexts it might be controlled by very different agents, such as local spirits afflicting illness or biochemical germs. Cancer patients in the U.S. learning Tibetan meditation, the Chinese laboratory chemist who learns how to evaluate the 'heat' in a medicinal ingredient, or a Tibetan patient who trusts IVs as 'cooling' agents against a 'hot' disorder – all are in contact with, and engaging with, a moral cosmology that comes from Tibet and that circulates in and through Tibetan medicine.

## **The Complexity of Encounters: Tibetan Medicine meets Biomedicine**

The idea that Tibetan medicine, as a unitary or singular system, is encountering biomedicine, as a separate system or tradition, is problematic as assuming a simple dichotomy of science/religion. The heuristic use of 'biomedicine' and 'Tibetan medicine' in these pages is overwritten by ethnographic and historical evidence which shows that there is a continuum of mutual interaction between these varied traditions that makes it impossible to see them as entirely discrete systems of medicine today. Indeed, the Tibetan medicine that we see today is nearly always already in conversation with a variety of other traditions, and it is itself an inherently integrative, composite set of diverse medical knowledge and practices to begin with (Dummer 1988, Meyer 1981, Pordié 2008, Samuel 2001). Tibetan medicine continues to be an assemblage, a result of socio-cultural processes of accretion, borrowing and change. These chapters show the unstable terrain of empiricism and epistemology in this process, in the sense of there being ongoing translations back and forth from history and in the present between medical traditions of many sorts.

Nevertheless, we need a way to account both for history and for the idea that Tibetan medical practitioners have had to become self-conscious of their differences as well as their commonalities with biomedicine. Biomedicine demands this kind of self-reflexivity, as is classically true of modernity (Langford 2002). Pordié writes that one finds a certain 'neotraditionalism' at work among those who want to claim the space for a traditional Tibetan medicine, by which he means a revival of tradition as a self-conscious claim to traditional versus modern Tibetan medicine (2008:

7). In this volume we often see that Tibetan medicine is not organized around such a strategic essentialism, but rather around a dynamism of form and technique, and even around theorizing about how to be efficacious. We sense a more grounded and practical engagement with biomedicine that subordinates debates about what constitutes ‘authentic’ Tibetan medicine for more pragmatic discussions about what cures work the best to heal patients in specific contexts or with specific diseases.

Still, it is worth noting that there is a point to the heuristic distinction which Pordié highlights, insofar as there have been and still are different levels of historical engagement with biomedicine and with concepts of the ‘traditional’ within *sowa rigpa* practice; the degree of this engagement has varied, depending on the type of practitioner, the location of practice and the purpose of their work. Today, Tibetan medical ideas and techniques are engaging with Western biomedicine at a number of levels and locations: from the public health practices and pharmacies housed in rural Tibetan clinics to the design and implementation of randomized controlled trials (RCT) on Tibetan therapies to be conducted in China, India or Western locales. These engagements are different still from those emerging at the turn of the twentieth century, as McKay details. We might consider, in fact, three successive waves of Tibetan encounters with biomedicine, while remembering that ‘biomedicine’ does not constitute an essential, uniform set of practices or knowledge. Let us elaborate on each of these ‘waves’.

### ***The First Wave***

The turn of the twentieth century saw Tibetan practitioners travelling to foreign lands and delivering medical services in these new locations in conversation with, and sometimes absorbing features of, ‘scientific medicine’, as it was understood at that time. These initial modern encounters constitute the ‘first wave’. This was of course in the context of historical engagements with other medical traditions (particularly Ayurvedic practitioners in northern India and Chinese medical practitioners at the edges of the Tibetan frontier). Similarly, early Western medical encounters occurred in Tibet by way of the British as well as some missionaries, the latter being an area which is less explored in existing scholarship (see McKay 2007). Although there may not have been a deep intellectual engagement between biomedicine and Tibetan medicine during the colonial British encounter (yet this may have been more true in modernist Russia), we are shown that a transfer of technology and knowledge was occurring. The first section of this volume covers much of this ground.

### ***The Second Wave***

We demarcate the ‘second wave’ of intensive interaction with ‘scientific’ medical models as the period from the 1950s onwards, when political changes orchestrated by Chinese socialism brought with them a wide variety of biomedical resources to Tibetan areas. Hospitals, clinics, the barefoot doctor movement, and new medicines and technologies were all introduced directly into urban and rural Tibetan communities over a fifty-year period. These reforms also included a direct revision of Tibetan medicine through Chinese biomedicalization, the re-training of Tibetan physicians as barefoot doctors, the attempt to eliminate important parts of the theory of Tibetan medicine on the grounds that it contained religious or superstitious elements, and the structuring of a hospital system that was modelled on the biomedical resources emerging throughout China (Janes 1995, 1999). The initial experiences of Tibetan displacement and exile in India, on the heels of India’s independence, and at a time when the country itself was reframing medicine and public health in post-colonial terms, also came to bear on how the Men-Tsee-Khang, reestablished in Dharamsala in 1961, began to interact with biomedicine and Western science.

### ***The Third Wave***

A ‘third wave’ of interaction with biomedicine began near the turn of the twenty-first century. This period is marked by a simultaneous attempt to revitalize and globalize Tibetan medicine through actions like the building of new pharmaceutical factories and new colleges, and new kinds of engagements with Western scientific models for research. In some ways this last wave is marked by the trends that are more generally and universally emerging in global health, particularly the growing emphasis on pharmaceutical research and the market driven nature of Tibetan medicine’s travels to areas beyond the Tibeto-Asian sphere. The third wave is expansive, vast and certainly not uniform but has the appearance of being totalizing in this expansiveness (from clinical trials on the efficacy of meditation to the effectiveness of empowering medicines for a clinical trial). The deep intellectual engagement between practitioners that was missing from the early colonial and missionary encounters with biomedicine is today a fundamental premise for the work that is documented in the chapters in this volume.

## Translations

The idea of ‘translation’ that emerges in these chapters is complex. Fundamentally, translation is defined as an act of encounter and conversation, but in its nuances can mean assimilation, correlation, insertion, syncretism, replacement, antagonism, complementarity and more. These processes draw our attention to the stakes of interaction at numerous levels, beginning with language and moving quickly to questions about epistemology, validity, truth and efficacy.

It is important to remember that many of the debates about validity and truth that become visible in encounters with biomedicine are not without historical precedent. Earlier debates among scholars trained in Tibetan medicine were generated by encounters with biomedicine, such as attempts to anatomically locate the ‘channels’ (*tsa*) or to find physical correlates of *nyépa*. For example, Gyatso (2004) identifies historical deliberations among Tibetan scholars concerning the relative merits of truth claims surrounding the ‘invisible’ aspects of Tibetan physiognomy imported from Buddhism (*nyépa*, *tsasum* or ‘three channels’, or *namshé*, ‘consciousness’, etc.). Even discussions over the relative role that should be played by religious interpretations versus empirical observations are not new to Tibetan medicine, but rather date back to the seventeenth century when there were debates between the Janglug and Surlug lineages of medicine (Meyer 1992, Gerke 1999, Hofer 2007, Garrett and Adams 2008). Indeed, there is an ample literature on these contestations over empiricism within Tibetan medicine and scholarship (Gyatso 2004, Garrett 2007), some of which re-emerge in the context of translational acts between *sowa rigpa* and biomedicine today.

In addition, the essays herein suggest that translation is itself configured by a variety of forces. One of these forces is the internal culturally grounded and knowledge-based epistemology of Tibetan medicine. Some of the chapters make it clear that epistemological orientations structure the extent and scope of the translatability of medicine. Specifically, whereas biomedicine seems to have a greater problem with reconciling Tibetan medicine-oriented objective realities, Tibetan medicine seems more able to adapt to different circumstances and yet retain an epistemological and practical constancy that is not unmoored by moving contexts. This refers back to the notion of a *sowa rigpa* sensibility. For example, we note that it is possible for Tibetan doctors to speak to the psychiatric patient, holding forth in a narrative of clinical engagement that resembles Western notions of psychiatry with Western patients who need this form of engagement,

while using more pragmatic and reductionist forms of physical diagnoses with Tibetan patients (Samuel 2001). We can think of comparative cases, in which biomedicine seems less capable of shifting modes of engagement and reconciling diverse epistemological claims. For example, biomedical researchers might be able to embrace the logic of ‘meditation’ practices as having benefit to patients (Chaoul, in this volume), but seem less capable of acknowledging the material and empirical effects of things like ‘blessing’ medicines (Craig, in this volume).

The problem of epistemological openness, in the context of translation, relates to efficacy. Notions of efficacy become intertwined with the languages that are used to name specific practices, measure outcomes and construct notions of etiology. Whether or not practitioners use substitution or correlation, or whether they simply use vernacular terminology, letting language be the placeholder for expanding and augmenting medical repertoires matters in relation to how efficacy is known and experienced. At the same time, it is simplistic to assume that these translational practices are only structured by internal epistemological positions (or at an individual conscious level only). On the contrary, other forces influence this process of translation. Politics and social movements, from the legacy of the Cultural Revolution to the regulation of the FDA or the marketing objectives of a clinical trial, the identity politics of exile Tibetans, or even the contexts of medical colonialism that outlaw certain practices simply because they represent political competition, all come into play in these processes.

The adoption or rejection of medical practices is seldom solely a result of clinical efficacy, empirical observation, or patient experience. Questions of efficacy are also the result of socio-political forces and conditions that make one kind of translation, one kind of observation, not only possible but also more valid than another at a given time. In the effort to decide upon efficacy, many translational practices must occur; these translations are limited (or enhanced) by such things as language capacity, technology and context (Czaja and Gerke, both in this volume). Bilingualism or trilingualism enables doctors and researchers to move more fluidly between languages and concepts, but deep knowledge of language can also make meaning more difficult. Sometimes practitioners’ substitution of terms such as ‘haemoglobin’ or ‘high blood pressure’ for Tibetan words in the process of diagnoses actually implies a re-signification of these biomedical terms because their use is better known to and thus more efficacious for a patient. In other words, these acts of translation are not an importation of some ‘pure’ or accurate rendering of biomedical concepts into Tibetan medicine.

Similarly, limits to translation emerge from a variety of circumstances: some technologies, medicinal ingredients, ritual instructions, or even diseases simply do not exist in practitioners' repertoires. Moreover, clinical interactions are structured by what doctors believe their patients know or can process. Lay understandings of medicine seldom correspond exactly to practitioners' understandings in any medical tradition, and in the translational context of a clinical encounter, these discrepancies can structure both language and practice. Tibetan physicians might use ultrasound technologies to affirm their diagnoses and assuage patient expectations for a kind of 'modern and scientific' encounter, but this does not necessarily mean that Tibetan medical practices have been colonized by biomedical science. Translational practices are multifarious and generate processes of mutual interaction between medical techniques that need not fundamentally undermine either one. We recognize the multiple ways that determinations of efficacy and expressions of medical evidence are structured by epistemological, political, social and other contexts. We also draw attention to the way in which it is often the 'miracle' of efficacy that convinces some to keep Tibetan medicine alive and even in recent history to call it 'science' in the Enlightenment sense of the term. Mei Zhan (2001) makes a similar argument with reference to transnational Chinese medicine.

A number of chapters in this collection elucidate how claims of efficacy accomplish a great deal, and that the outcomes of such claims do not inevitably lead to a reductionist or simplified use of Tibetan medicine. We have seen that biomedical clinical trials tend to reduce Tibetan medicine to a set of pills, formularies and treatments that are easily inserted into otherwise entirely biomedically conceptualized disease and treatment models (Adams and Li 2008, Craig 2006). Criticisms of these approaches focus on the effacement of other aspects of Tibetan medicine that appear unfathomable in biomedicine (such as theories of *nyépa*). But sometimes the reverse occurs; sometimes it is precisely what we might call the 'spiritual' aspects of Tibetan medicine that are the focus of study and healing outcomes (Samuel 2007). In fact, there is a large and growing field of research that attempts to bridge the fields of Western science with Tibetan religion. Beginning with researchers like Herbert Benson, who looked at *tummo* or subtle body practices beginning in the 1980s, and extending to the Mind-Life Institute's current research and explorations between Tibetan Buddhism and neuroscience, such research agendas are specifically invested in creating new pathways of translation between two different philosophical and epistemological worlds, yet usually entail Western appropriations of Tibetan Buddhism.

The attraction of what many Westerners call the ‘mystical’ or ‘spiritual’ elements (while many Tibetans would call it ‘religious’ elements) of Tibetan medicine plays an important role in the engagements between Tibetan medicine and biomedicine, but are for the most part not seen as integral to medical practices in either world. And we suspect a certain limitation even in this work. In the first place, Tibetan religious practices tend to be the focus, rather than Tibetan medical theory, much of which offers explanatory empiricism that is entirely overlooked (Cuomu, in this volume). In addition, there is a tendency to see the spiritual aspects of Tibetan practices as the part that is ‘on top of’ or ‘additional’ to science versus the idea that what might be called the ‘mystical’ elements are actually integral to Tibetan theories of physiology that account for a therapy’s effectiveness. The empirical efficacy of ritual practices relies on a set of assumptions about cosmology which are also frequently overlooked (Schrempf, in this volume). We noted above, for example, that researchers are able to study the psychological benefits of meditation and neurological changes in biochemistry, for example, but they are less likely to be interested in or able to study the biological processes that might explain or elucidate whether or not meditation or other ritual practices reduce things like tumour growths. This is partly because they are not invested in making the subtle translations between theories of physiology and elements and *nyépa*, cells, molecular structures and the like.

## Conclusion

Within the multifarious engagements between biomedicine and Tibetan medicine over history and into the present, questions about empiricism, epistemology and efficacy, as well as negotiations surrounding the political nature of scientific ‘truth’, are taking place. While obvious strains have been put on the Tibetan ‘science of healing’ to accommodate biomedical ideas and practices, Tibetan medical practitioners are also participating, even actively shaping, encounters with biomedicine and Western science. Instead of merely effacing Tibetan medical theory with biomedical ideas and practices, or ignoring cultural elements of Tibetan medical praxis that do not fit within a materialist frame, our authors write about instances in which a range of Western scientific practices and epistemological positions are being made to accommodate not only elements of Tibetan medical theory, but also culturally Tibetan ideas about the nature of causality, the

definition of health, and the role of the healer-physician in society. There is a synchronic and diachronic way to express these engagements. There is a reason why, at contemporaneous moments, people in the U.S. are interested in meditation while people in Amdo are interested in IV injections and syringes, and why, in both instances, they are turning to Tibetan practitioners to address their concerns and meet their needs.

In this volume we are also concerned with how the definition and scope of ‘Tibetan medicine’ is being reshaped in national and global contexts, moulded to suit a variety of social, political, economic and even ecological conditions. The main contribution of this volume, then, is to provide examples of how and why scholars, researchers, and medical practitioners are discovering that making ‘sense’ of the translation effort between these systems requires adopting a culturally Tibetan way of *doing science* – perspectives that demand an engagement not only with the rubrics of Tibetan science (*rignä*), but also with ideas and practices emergent within Tibetan cultural frameworks and moral world-views.

The volume is organized into four parts, each of which begins with a brief essay introducing the conceptual themes found in the chapters therein. The first part, called ‘Histories of Tibetan Medical Modernities’, features a chapter by Alex McKay, whose work is situated in early twentieth-century Tibetan encounters with biomedicine by way of the British, and Martin Saxer, who documents Tibetan medicine’s early travels beyond Tibet into a modernizing and ‘scientizing’ Russia. Although there are well-known scholars of the history of Tibetan medicine (such as Frances Garrett, Janet Gyatso and Christopher Beckwith), their works have remained primarily oriented towards philology. The contributions by Alex McKay and Martin Saxer offer new ethnographic histories that account for the complexities of encounters between medical practices and British or Russian figurations of modernity. They serve as an excellent starting point for the volume in the sense that they undermine notions of essential medical traditions as much as uniform encounters between them.

The second part, ‘Producing Science, Truth and Medical Moralities’, starts with Stephan Kloos’ chapter on the Men-Tsee-Khang in Dharamsala (India). Kloos identifies the impact of biomedical modernization on *amchi* practitioners as a problem that redirects their sense of the ‘ethical’ in and through traditional ideas of culture and religion. The following chapter by Vincanne Adams, Rinchen Dhondup and Phuoc Le shows how efforts to integrate biomedicine and Tibetan medicine in Xining (Amdo/Qinghai) result in processes that refigure both biomedical and Tibetan practices of

medicine and therapeutics. Barbara Gerke's insightful and ethnographically based work reveals some of the complexities of translating between two medical frameworks, and the ways in which this process reconfigures meaning in two directions among practitioners in Darjeeling, India.

The third part, 'Therapeutic Rituals, Situated Choices', focuses on the dynamics of clinical encounters that are defined by medical pluralism at the level of diagnosis and treatment choices as well as notions of causality, potency and efficacy. This part begins with a chapter by Mona Schrempf, who documents the ease with which biomedical and Tibetan spiritual therapeutic treatment options come to be aligned in Amdo/Qinghai. Kim Gutschow analyses the complex politics of biomedical and traditional options for reproductive health care among delivering women in Ladakh. Sienna Craig, working in Lhasa, identifies the powerful rhetorics of efficacy that become contested and reclaimed as biomedical science offers to validate Tibetan medicine by way of randomized controlled clinical trials, and as Tibetan medical practitioners respond, in kind, with alternate systems of validation.

The final part of the book, called 'Research in Translation', presents chapters by those who are invested in the world of research. Mingji Cuomu offers a formal discussion of the principles of research and epistemology from the perspective of a Tibetan medical practitioner. Olaf Czaja's work documents a conference held in Dharamsala among doctors of Tibetan medicine that attempted to show Tibetan medical effectiveness for treatment of cancer and diabetes. As his work demonstrates, this process is full of complexities and translational dilemmas. Next, Alejandro Chaoul presents a compelling case of how to translate Tibetan meditative practices into a clinical trial on cancer treatments in the U.S. Last but not least, we conclude the volume with an epilogue by Geoffrey Samuel, whose insights on Tibetan medicine have, either directly or indirectly, held an important place in all of the contributors' work. Samuel summarizes the volume's scholarly contributions and opens up future ways of researching a *sowa rigpa* sensibility.

## Notes

1. We note that this use of the idea of 'orientations' is different from Samuels' discussion of pragmatic, *karmic* and *bodhi* 'orientations' within the context of Tibetan religious practice and literature (1993: 26f).

2. This 'Mentsikhang model' refers to the forms of Tibetan medical knowledge and practice that were first articulated in the early decades of the twentieth century in Tibet and that have been deployed in both the Tibetan exile communities (for which we use a different Anglicized spelling, i.e., Men-Tsee-Khang) and through state-sponsored Tibetan medicine in China since the 1950s and 1960s. In both contexts, this model has hinged on the development of standardized and state-approved medical curricula and courses of study, as well as licensing and certification procedures for Tibetan medical practitioners and medicines themselves. Also, biomedical influences are likely to be more prominent in this kind of Tibetan medical practice than in the older 'lineage model' of Tibetan medicine (Schrempf 2007b: 93).
3. Doctors of Tibetan medicine from the Dharamsala Men-Tsee-Khang also translate 'science' as *tseñrig*, as distinct from traditional Tibetan knowledge. In some instances, 'Western science' was dismissed altogether as 'dangerous' because of its standardization that stands in stark contrast to the individual constitution of the three *nyépa* in each body and to the 'profound' approach of Tibetan medicine based on religion. It might be worth noting here that the translation of *rigpa* as 'science' arose out of a particular and widespread mind-set based on modern Buddhism which tried to legitimize ('ancient') Buddhist, and in particular Tibetan, knowledge by relating it to present 'Western' science (see Lopez 2008). However, we try to avoid this dilemma by analysing how practitioners of Tibetan medicine themselves have engaged in using (Western) science and sometimes also 'religion' – in the sense of equating or correlating ideas, such as the interpretation of the three 'faults' or 'deficiencies' (*nyépa*) as 'poisons' (*du*) – as well as drawing upon Tibetan etiologies, diagnosis and treatment methods, such as *karma*, ritual, *mantra*, amulets and astrological calculation, in order to prove the efficacy of Tibetan medicine and thus mark their medical tradition as equally if not more valuable than biomedicine.
4. Indeed, Pordié (2008) aptly addresses this plurality of practice and asks if we should not consider the term Tibetan medicines instead of Tibetan medicine.
5. There are only a handful of Tibetan medical texts dating to the Tibetan Imperial period (seventh to ninth centuries), yet Tibetan medical historiography, as expounded in the *Gyüshi*, dates the authorship of this standard medical text back to Yuthok Yönten the Elder, a mytho-historical figure who presumably lived in the eighth century. While Tibetan historiographers of Tibetan medicine nowadays acknowledge early Bon influences, historically speaking the *Gyüshi*—a compilation of older texts—has to be dated to the twelfth century only. Nevertheless, at least since the time of Sakya Paṇḍita (1182–1251), we can be sure that Tibetan medicine became part of the 'five major sciences' (*rignā chéwa nga*) in monastic curricula. In any case, medical lineages in which theory and practices were transmitted from master to disciple / father to son / uncle to nephew existed centuries earlier and remain today a method of transmission of non-institutionalized medical knowledge.
6. See also Prost (2007) for an exploration of the dynamics between Tibetan medical practitioners and reforms to deal with exile politics.

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