



---

The Empirical as Conceptual: Transdisciplinary Engagements with an "Experiential Medicine"

Author(s): Mei Zhan

Source: *Science, Technology, & Human Values*, Vol. 39, No. 2, Special Issue: The Conceptual and the Empirical - expanding STS (March 2014), pp. 236-263

Published by: Sage Publications, Inc.

Stable URL: <https://www.jstor.org/stable/43671175>

Accessed: 02-03-2019 15:30 UTC

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

*Sage Publications, Inc.* is collaborating with JSTOR to digitize, preserve and extend access to *Science, Technology, & Human Values*

# The Empirical as Conceptual: Transdisciplinary Engagements with an “Experiential Medicine”

Science, Technology, & Human Values

2014, Vol. 39(2) 236-263

© The Author(s) 2014

Reprints and permission:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/0162243913520045

sthv.sagepub.com



Mei Zhan<sup>1</sup>

## Abstract

Traditional Chinese Medicine (TCM) is often considered an “experiential medicine.” As such, it is seen as in need of conceptual elevation by scientific experiments and theorization, which actualize and undermine scientized forms of TCM. This essay argues that the predicaments of TCM are thoroughly modern and must be understood within the “Modern Constitution” in which the production and proliferation of asymmetries are both constitutive of and obscured by modern knowledge production. This essay dislodges these asymmetries through transdisciplinary engagements with TCM. This transdisciplinary approach, as I will show, allows us to animate the experiential in order to unsettle the relations between the empirical and the conceptual, the concrete and the abstract, and the contingent and the universal. Most importantly, it enables reconsiderations of the experiential and the empirical as conditions for thinking, doing, and being that

---

<sup>1</sup>Department of Anthropology, University of California, Irvine, CA, USA

## Corresponding Author:

Mei Zhan, 3315 Social and Behavioral Science Gateway, University of California, Irvine, CA, USA.  
Email: [mzhan@uci.edu](mailto:mzhan@uci.edu)

insist on immanence, move analogously, and travel sideways. Thus, rather than wanting conceptual uplifting, TCM as an experiential medicine could not only work as a critique of the Modern Constitution but also force a conceptual disruption from within by insisting on the empirical as conceptual.

### Keywords

academic disciplines and traditions, methodologies, methods, cultures and ethnicities, engagement, intervention, epistemology

### Introduction

In 2004, Dr. Chen Kaixian, a chemist renowned for his research in molecular pharmacology, was appointed the President of the Shanghai University of Traditional Chinese Medicine (SHUTCM). While acknowledging to being “one hundred percent ignorant of traditional Chinese medicine,” Dr. Chen presented himself as a firm believer in the scientific nature and therapeutic value of this “experiential medicine” (*jingyan yixue*). He outlined a history of progress in which medicine evolves through three “stages”: experiential medicine such as traditional Chinese medicine (TCM),<sup>1</sup> experimental medicine (*shiyanyixue*) exemplified by biomedicine, and comprehensive medicine (*zhengti yixue*) that integrates both (Chen 2009, 1). He asserted that “the convergence of eastern and western medicines is the future direction of medicine” (Chen 2009, 1) and that his agenda was to elevate SHUTCM by steering it onto a path of commercial production, education, and scientific research (*chanxueyan*).

Unsurprisingly, both his academic background and his bold agenda were greeted with skepticism from the TCM community in Shanghai. Dr. Chen was quick to remind his critics that it was the founding members of SHUTCM themselves who invented “TCM with two fists”: since its inception in 1956 as one of the first four state-run TCM colleges in China, SHUTCM has promoted a distinctive if controversial Shanghai-style (*haipai*) TCM that embraces biomedical concepts and methods within its pedagogical and clinical practice.<sup>2</sup> However, even the staunchest advocates of two-fisted TCM would admit that the roadmap from the so-called experiential, experimental, to comprehensive medicines is by no means straightforward. Dr. Zhao Liying is one of these advocates.<sup>3</sup> A biomedical professional by training, Dr. Zhao was in charge of overseeing all scientific research activities at SHUTCM when I first met her in 1999. She told me at the time:

We try to establish a common ground with western medicine by using its modern methods and techniques to test basic TCM theories. However, when we

apply for research grants, we have to write proposals that will be evaluated by physicists and chemists. They often do not understand our projects. They always ask for the precise biochemical assay of Chinese herbs inside the human body. But each Chinese herb contains many chemical components. Each herbal prescription contains many herbs. Also, for us, each patient is different and each clinical case is different. There are too many contingencies that cannot be controlled. So how are we supposed to answer their question about doing an assay?

Both Dr. Chen and Dr. Zhao are trained in biomedicine, and yet they speak of TCM from within. Their aspirations and dilemmas index a vision of TCM in which the convergence with experimental science and medicine is essential for its present and future, and yet on what and whose terms this convergence should take place and progress remains a subject of vexation. Designated an experiential medicine, TCM is widely assumed to be deeply entrenched in the empirical, the particular, and the contingent. As such, TCM is not only in perpetual need of conceptual uplifting by scientific experimentation and theorization, but its aspired integration with biomedicine also entails asymmetrical translational practices that at once activate and undermine scientized forms of traditional Chinese medicine. Importantly, these translational practices do not take place *between* TCM and modern science, but rather within the uneven translocal fields of science, medicine, and modernity that have given the experiential its distinctive ontological and epistemological status and signification in the first place. These are the distinctively modern predicaments of the experiential.

This essay explores the predicament of traditional Chinese medicine as an experiential medicine by approaching them from within what Bruno Latour (1993) calls the Modern Constitution, in which the production and proliferation of asymmetrical binaries are constitutive and symptomatic of modern knowledge production and at the same time obscured by it. As an effort to dislodge these asymmetries, I think *through* and *alongside* “traditional Chinese medicine.” Throughout this essay, whereas I use the acronym “TCM” when referencing the standardized and institutionalized form of traditional Chinese medicine that emerged in China in the 1950s (see footnote 1), I speak of “traditional Chinese medicine” when gesturing toward a multiplicitous and dynamic field of experiences, practices, and ideas that can never be entirely fixed by disciplinarity. This transdisciplinary approach allows us to reevaluate the experiential in order to unsettle the relations between the empirical and the conceptual, the concrete and the abstract, and the effervescent and the enduring. Most importantly, it enables serious considerations of

the experiential and the empirical as conditions for thinking, doing, and being that insist on immanence, move analogously, and travel sideways. Simply put, I am interested in exploring the empirical as conceptual: rather than in need of conceptual uplifting, traditional Chinese medicine as a controversial experiential medicine could help us understand the historical multiplicity and incompleteness of the Modern Constitution, and force a conceptual and methodological disruption from within. My purpose here is neither to reverse the asymmetries of the Modern Constitution nor to recapture a premodern past. By approaching the Modern sideways, I explore the ways in which the nonmodern can be rendered imaginable, thinkable, and doable.

As I have argued elsewhere, what we have come to know as “traditional,” “Chinese,” “medicine” is constituted through—rather than prior to—translocal encounters and entanglements with modernity, science, and biomedicine which simultaneously conjure particular visions, understandings, and practices of what makes up our worlds and our places in them (Zhan 2009). This kind of “worlding” gives particular forms to traditional Chinese medicine while at the same time conceals and excludes others. Historians and anthropologists have argued, for instance, that the emergence and solidification of traditional Chinese medicine as a professional medicine took place amid struggles and entanglements with western medicine and through a process of exclusion, scientization, and hybridization (see, e.g., Farquhar 1994; Scheid 2002; Taylor 2005). As noted by the historian Sean Hsiang-lin Lei, the translation of *jingyan* into “experience” was historically recent; likewise, the prevailing assumption—lay and academic—that TCM is based on experience and progresses through accumulating experience was “a completely modern phenomenon” (Lei 2002, 333-34). Lei (2002, 334) points out that it was not until the beginning of the Republic Era (1911-1949) that *jingyan*, which until that point had been used in combination with the word “fang”—or “formula”—to describe “a collection of well-respected formulas of drug prescriptions”—became equated with experience in the empiricist sense. Around the 1920s and 1930s in particular, western-style and traditional Chinese medical practitioners engaged in a series of epistemological and political struggles and mutual imbrications that remolded TCM into an experiential medicine befitting the modernist empiricist position and evolutionary narrative. As Lei puts it, the new empiricist and evolutionary usage and meaning of *jingyan* became “so entrenched in Chinese medical language, it is difficult to imagine that for a long time Chinese people lived comfortably without it” (2002, 334).

During the institutionalization and standardization of TCM in the People’s Republic of China in the 1950s, *jingyan*, by now firmly established

as experience, underwent further systematic reformation as “unscientific” and “superstitious” elements—itinerary doctors, divination, bone-setting, and certain conceptual devices—were purposefully excluded from or underplayed in the official version of TCM consisting mainly of herbal medicine, acupuncture, and *tuina* (a form of therapeutic massage). At the same time, under the instruction from the Chinese Ministry of Health, biomedical professionals collaborated with TCM practitioners in creating TCM institutions, compiling TCM theories, and conducting laboratory and clinical research. In due process, TCM consolidated its status as a uniquely empirical Chinese medicine that, grounded in experience, is inevitably caught up within the unrelenting machine of progress, and awaits refinement by scientific experimentation and theorization.

Simply put, experience in traditional Chinese medicine has a very modern genealogy. Although normative discourses of traditional Chinese medicine readily frame it as a culturally distinctive experiential medicine with a continuous history grounded in empirical practice, I argue in this essay that this distinctive professional and intellectual identity is crafted through a series of bifurcations, especially that of “theory” and “empiricism” that underlies the production of the modern; yet, at the same time, it is precisely from within the modern that traditional Chinese medicine harbors an orientation, however tenuous, to analytics working with and within the specific and moving “from particular to particular” (Agamben 2009, 30)—especially metaphors and analogies that insist on and make explicit the inseparability and multiplicity of thinking, doing, and being.

In what follows, I first examine the crafting of traditional Chinese medicine as an experiential medicine through discourses, strategies, and practices of bifurcation that have formulated a body of TCM theory in need of being empirically tested by bioscientific methods and especially laboratory and clinical experiments. Practitioners of traditional Chinese medicine have long argued that the fact that these experiments often fail to yield satisfactory explanations for whether and how traditional Chinese medicine works is due to the incongruence between ancient Chinese medical concepts and modern scientific methods. This argument is somewhat misplaced. By examining the theorization of experience and subsequent experimentation on TCM theories, I suggest instead that it is the bifurcation of the conceptual and the empirical in the first place that has both remade traditional Chinese medicine in the modernist form and, in doing so, created TCM and especially its theories as dubious claims or problems unsolvable by scientific means. Yet the fact that TCM cannot be entirely explained or dismissed by science—in spite of efforts of equal measures

of earnestness from both advocates and opponents—indicates that the bifurcation of TCM is not, and perhaps cannot, be completed.

My second task in this essay is to examine whether “experience” can be made imaginable, thinkable, and doable as a conceptual and empirical device that allows for analytics of the specific and the contingent. In particular, I explore metaphorical and analogous thinkings that are at play in the everyday pedagogical and clinical discourse and practice of traditional Chinese medicine. Rather than subscribing to the naturalized scale and order that underlies deductive or inductive thinking, metaphors and analogies in traditional Chinese medicine work sideways and in the specific, requiring practitioners to think relationally, critically, and creatively while confronted with particular clinical situations. In this sense, the experiential articulates the embeddedness of the conceptual in the empirical, which challenges the modernist stance that TCM must be elevated to the level of empirically verifiable theory. Thus, when taken seriously as a knowledge formation and cultural analysis in its own right, the experiential offers possible critiques of modern scientific knowledge production and points toward ways of thinking and doing that insist on the oneness of the conceptual within the empirical. The result is not just a phenomenological or ontological privileging of experience, but rather possibilities for what Bruno Latour (1993) calls “nonmodern” articulations of knowledge: not premodern, antimodern, or postmodern—all of which still rely on the spatiotemporal order of the modern—but rather nonmodern in the sense that they animate ways of thinking and doing disarticulated by practices of purification and bifurcation in the production of the modern.

## **Transdisciplinary Engagements**

Though by no means mutually exclusive, the conceptual and the empirical are often contrasted with each other as two distinctive modes and scales of knowledge formation. On one hand, the conceptual tends to occupy the terrain of the abstract, theoretical, and perspectival; on the other, the empirical is the privileged site of the concrete, evidential, and experiential. As in most divisions of labor, such a binary is unevenly structured. The conceptual conjures and is conjured by “thinking,” whereas the empirical is grounded in acts of “doing” where ideas and imaginations are to be operationalized. Thus conceived, the conceptual and the empirical confront each other in oppositional and/or complementary ways, and appear caught in the constant need of being wrestled into a dialogue—inductively or deductively, depending on whether one scales up from the empirical to the conceptual or the other way around.

But is the relation of the conceptual and the empirical, the theoretical and the evidential, and the abstract and the specific predictably and necessarily one of division, of complementation, and/or awaiting a reconciliation achievable only on asymmetrical terms? Not quite. I suggest in this essay that the relation between the conceptual and the empirical in modern knowledge production is not one of binary, but rather both constitutive and symptomatic of discourses, strategies, and practices of bifurcation.<sup>4</sup> Far from a universal or structural formation, bifurcation is both a contingent process and a partial outcome of the simultaneous disarticulation and rearticulation of otherwise inseparable ways of thinking, doing, and being. The point where bifurcation emerges, as Marilyn Strathern (2011, 90, emphasis mine) points out, is “the *moment* at which a distinction between terms could lead analysis down different routes.” Bifurcations, as I have argued elsewhere, rely on strategies of distancing, scale-fixing, and abstraction-and-specification that create and set in order distinctive epistemological and ontological domains (Zhan 2011). Thus, rather than a dialectical enclosure or a reliable hierarchy of scale within which all knowledge productions must take place, the relation of the conceptual and the empirical, as well as what counts as conceptual and what counts as empirical, is what needs to be critically examined for multiple and nonmodern modes of knowledge production and social analysis to become thinkable, imaginable, and doable.

This is what I aim to do as I bring traditional Chinese medicine, science and technology studies (STS), and medical anthropology into a conversation through “transdisciplinary engagements” (Barad 2007). Here, transdisciplinary engagement is a way to critically evaluate and revise concepts and methods that transgress and alter disciplinary boundaries and hierarchies (see, e.g., Barad 2007; Dolling and Hark 2000; Mol 2002; Marcus 2008; Maurer 2005; Wolfe 2009 ). For example, working with both anthropological and oceanographic materials and theories, anthropologist Stefan Helmreich (2009, 23) argues for an “athwart theory” of “empirical itinerary of associations and relations, a travelogue which...moves sideways, tracing the contingent, drifting, and bobbing, real-time, and often unexpected connections of which social action is constituted, which mixes up things and their descriptions.” It is my hope here that such sideways, open-ended, and potentially unruly engagements can disrupt strategies of bifurcation and call out tricks in scale-making, and in so doing redefine the nature and terms of disciplinarity—itsself a naturalized modern knowledge formation (Foucault 1994)—without fantasizing a greater sense of knowing or transcendence from ontological specificities and multiplicities.<sup>5</sup> Through a transdisciplinary engagement with traditional Chinese medicine, I hope to extend and transpose these insights so that, in the spirit of

this special issue, we might reopen and experiment with the theoretical-methodological repertoire of STS (Gad and Ribes, 2014).

Ironically, the transdisciplinarity of TCM and STS was first brought to my attention by a perhaps unlikely observer. It took place during a lecture for a graduate-level course aimed at “debunking” Complementary and Alternative Medicine. The instructor, a retired surgeon continuing to teach at the Stanford Medical School, named two culprits for the rise of what in his view were spurious, irrational, and unenlightened beliefs and practices such as traditional Chinese medicine. They were “relativism” and “constructivism,” one a robust anthropological heritage and the other gaining momentum within and beyond an emergent STS. Even though relativism was probably not the most cutting edge or subversive approach in anthropology, and constructivism was but one of several critical modes of inquiry in STS, I gleefully embraced the instructor’s astute though unintended observation of the transdisciplinary kinship of traditional Chinese medicine and STS.<sup>6</sup> He clearly recognized and understood the collective challenge they pose for positivist logic and science. These “knowing practices,” to borrow a phrase that Judith Farquhar (1994) so aptly uses to describe traditional Chinese medicine, are open to epistemological and ontological multiplicity and contingency. As I will show in the discussion below, TCM is steeped in empirical discourses that are committed to their own worldliness. It offers a lesson and a method for STS by challenging strategies of bifurcation that have been essential in modernist knowledge production and, more importantly and broadly, the epistemological and ontological investments of modernity itself.

To begin, the bifurcation of the conceptual and the empirical is a product and symptom of what Bruno Latour (1993) calls the “Modern Constitution”, which disarticulates an imminent world of humans and things that exist in myriad connectivities and enmeshments—the “Gordian Knot” in his words—only to compartmentalize, purify, and rearticulate it through binary terms and in the form of newly minted hybrids. One important outcome of the Modern Constitution is the “Two Great Divides”—one separating nature from culture, society, and science; the other separating “us” Moderns who have accomplished this divide and the “them” Ancients who have not (Latour (1993)). Latour (1993, 10) argues that modernity (as we know it) is premised on the assumption of a rupture and revolution in linear time that pitches the Moderns against the Ancients in an asymmetrical battle with the defeat of the Ancients its only predictable outcome. This sense of rupture and revolution, however, is somewhat misplaced. In spite of the Moderns laying claim to the invention of the sciences, the secularization of society, and the mechanization of the world, it is precisely the ostensible severance of nature

and culture, human and society that has enabled the assemblage and proliferation of all sorts of hybrids by rendering the work of mediation “invisible, unthinkable, unrepresentable” (1993, 34).

As I try to recover what has become invisible and even unthinkable in modernist knowledge production, I do not aim to invent a new form of mediation or to impose another layer of analysis. Nor am I interested in resurrecting the Ancients. The reason is simple: if we could truly think of the “Ancients” as particular material-semiotic configurations and orientations rather than a product of time, I would say that we might find them alive and well even today. My experimentation with transdisciplinarity, then, is oriented toward what Latour (1993, 46–47) calls the nonmodern position: in order to retie the Gordian Knot, it is not enough to take the stance of the premodern, the antimodern, or the postmodern, all of which still uphold the timeline of modernity and, more crucially, the Modernist purification and hybridization of the world. What I try to do here is to coimagine already-existing and emergent ways of thinking, doing, and being that nourish the nonmodern. Specifically, through an exploration of rearticulations of the empirical as conceptual, I hope to recuperate the multiplicity and contingency in the making of knowledges and worlds. What is at stake is the possibility for multiple modes and scales of knowledge and world formation—not the pluralization and proliferation of empirical objects and case studies to be subsumed under the umbrella of STS, but a sustained examination and expansion of strategies of thinking, doing, and being through transdisciplinary engagements.

I write, first of all, as an anthropologist who believes that “relativism” has not gone far enough. Relativization should not stop at pluralizing the cultures and worlds under anthropological and broader social analysis, but needs to take place in the conceptualization of our analytical framework and ways of thinking and doing anthropology and STS (see Latour 1993; Gad and Jensen 2010; Mohacsi and Morita 2013; Strathern 1991). Relativism, as pointed out by Strathern (1991, xiv), still relies heavily on scale-making tricks that set apart the observer from the observed: whereas “westerners” move freely between discreet domains and are able to alter the magnitude of phenomena, the phenomena under study are held in place through practices of enumeration by the observer. The consequence is the proliferation of objects under study, as well as their apparent detachment from the external observer and analyzer, which leaves the analytical intact in its singularity. To truly achieve symmetry in anthropology—and critical social inquiry and knowledge formation more broadly speaking—relativism itself needs to be relativized through a reconsideration of the production of distances and scales

that separate the analytical and the analyzed. It follows that symmetry cannot be accomplished by tricks of reversal that simply switch the places of theory and phenomenon. Nor are the past and the distant a safe time-space to look for remedies for the modern. In the case of traditional Chinese medicine, it would be an analytical dead end to replace one kind of orientalism with another. Rather, it is the nature of the relationship between theory and phenomenon that needs to be reexamined and turned onto its side: juxtaposition and analogy rather than reversal. traditional Chinese medicine as I will discuss in this essay, can “model” this kind of sideways analytic that helps us rethink the nature of thinking, doing, and being without resorting to etiology.

I write, too, as an ethnographer of traditional Chinese medicine. It is true that traditional Chinese medicine—and “traditional medicines” more broadly speaking—is more of a familiar topic under the lenses of medical anthropology and history rather than STS. Medical anthropology was traditionally defined through the studies of, first, nonwestern and nonbiomedical conceptions and practices of body, illness, and healing, and, second, health care behaviors and practices among ethnic minorities in the United States or nonwestern people. It was a study of other knowledges and identities—subject matters that in turn would come to mark the otherness of medical anthropology and anthropology more broadly speaking.

Cultural and social studies of science, in contrast, is a highly heterogeneous field that draws on insights from various disciplines such as history, philosophy, sociology, anthropology, feminist studies, and natural sciences. Yet as I try to articulate new questions about the knowledge-making and world-making practices in and of traditional Chinese medicine, I find science studies particularly productive in crossing forbidding boundaries in knowledge production and laying bare otherwise unapparent epistemological and ontological connections and ruptures (Zhan 2009). Feminist and anthropological studies of science in particular has suggested that what we come to know as science is accomplished via sociohistorically contingent processes and that doing science entails constant negotiation, interaction, and strategic moves (see, e.g., Haraway 1991; Latour and Woolgar 1979; Traweek 1988). In practice—and especially as a diverse set of inquiries gradually congealed and became institutionalized in the form of STS—science studies has largely focused on knowledge formations that readily lay claim to the status of “technoscience.” Even so, technoscientific discourses and practices are not seamlessly “modern” and particular kinds of knowledge production might be highly controversial within scientific communities and beyond.<sup>7</sup> Recent ethnographic and analytical orientations toward questions of ontology and materiality (or rather, ontologizing and materializing), in particular, have

foregrounded the distributed and multiplicitous nature of knowing and being. In her groundbreaking ethnography of atherosclerosis—a “disease” rather than an “illness”—Annemarie Mol (2002) eloquently argues for an object-oriented ontology that can be the grounds for an “empirical philosophy.” In a similar vein, Karen Barad sets a brilliant example in her account of how to extend the posthumanist (and nonmodern) insights of the quantum physicist Niels Bohr’s philosophy–physics into a fundamental questioning of epistemological and ontological issues including the nature of nature and meaning making, and the relationship between discursive practices and the material world (Barad 2007, 24). Biomedicine and modern science, then, are not grounded in some uniform thinking and doing that always unambiguously endorses the Modern Constitution. Rather, cultural and social analyses have a critical role to play in highlighting the inherent multiplicities, instabilities, and critiques from within.

Traditional Chinese medicine is a long way from quantum physics on the scale of prestige in scientific knowledge production, and yet, like Bohr’s philosophy–physics, it embodies a nonmodern critique from within the modern. My transdisciplinary engagement with STS entails a rethinking and reaffirmation of STS as a set of critical modes of analysis and lines of inquiry in need of constant reexamination and reinvention, rather than a discipline bounded by (arti)facts and practices that can readily lay claim to the status of technoscience (Zhan 2009). Instead of privileging new technologies or new historical milieus as obvious sources of or explanations for transformation and novelty, I am, to paraphrase Ian Hacking, not so much interested in new observations or experiments, as I strive to rethink and reimagine “old” data and ideas (Hacking 1999, 190). Traditional Chinese medicine is not a new technoscientific object or practice in the sense that its professional identity has never been built on discovering or inventing the new. For Chinese medicine, novelty—whether technological innovation or new market environment and strategy—is always grappled with rather than wholeheartedly embraced and advocated. But there is always something new about Chinese medicine in its everydayness if we look closely enough and if we are willing to broaden our sense of newness. The networks and assemblages of Traditional Chinese medicine have always taken me into both expected and unexpected directions, constantly probing and even subverting the boundaries between Chinese medicine and biomedicine, culture and science, old and new.

However, even though other ways of thinking, doing, and being are all too familiar phenomena studied by anthropological and social inquiries more broadly speaking, they remain invisible and practically unthinkable as

possible analytical frameworks for social analysis (Zhan 2011). The question here is thus how to bring STS, medical anthropology, and Traditional Chinese medicine into transdisciplinary engagements without reproducing the division and hierarchy of knowledge, or re-creating the bifurcation of the analytical and the analyzed. In order for transdisciplinary engagements to happen, terms of engagements need to be shifted. Medical anthropologists, for example, have come to trouble this conventional division of labor not only in terms of what they study but also how they study it. In *No Aging in India*, Lawrence Cohen (1998) crafts an uncompromising juxtaposition of translocal discourses and experiences of Alzheimer's, dementia, senility, and aging, and in doing so eloquently illustrates the ontologization of difference as both symptomatic and constitutive of postcolonial modernity. In more recent studies of "traditional" medicines, too, Jean Langford (2002) showcases the production of postcolonial social body in Ayurveda clinics in India. Stacey Langwick (2011) tells a tale of ontological politics through a decidedly STS approach to "traditional" Tanzanian practices of body, illness, and healing. And Volker Scheid (2002) invokes Andrew Pickering's notion of "bundles" of practice to understand the reinvention of TCM in its institutional, conceptual, and practical dimensions. Thinking through "traditional" medicines helps us undo the hierarchical boundary- and domain-making practices out of which they are created: STS-informed analyses tell us that there isn't any kind of traditional medicine—in fact, traditional medicines would be quite unimaginable as such—without the modern and the scientific.

In what follows, I discuss, first, the ways in which the scientization and institutionalization of TCM both rely on strategies of bifurcation and at the same time highlight the specific, multiple, and always contested nature of what counts as "theory" and what counts as "empirical." Second, I show that in making explicit the work of metaphors and analogies in the making of the knowledges and worlds, it becomes possible to reimagine the empirical-as-conceptual; this in turn serves as a powerful nonmodern critique and analytic. What follows includes both a cautionary tale of bifurcations and a hopeful analytic for their nonmodern articulations. First, the cautionary tale.

### **Bifurcating "Experience"**

Stroll through the winding corridors of the Shanghai Library, the largest public library in China, which opened at its current downtown location in 1996. Here, you will find a gallery of portraits of the local members of the Chinese Academy of Sciences and the Chinese Academy of Engineering, in which the library takes great pride. The *Introduction* to the gallery reads:

Shanghai, an Eastern metropolitan port, has long enjoyed the reputation of being an inspired land with outstanding people...As of the end of 2001, Shanghai has 177 members of the two Academies, which is more than 1/10 of the national total. They come from almost the entire spectrum of scientific disciplines. They are the treasures of the people of Shanghai and precious resources for the nationwide field of science and technology.

Tucked away in a quiet corner of the gallery is a portrait of Dr. Shen Ziyin, the plaque under whose portrait reads “expert in the integration of traditional Chinese and western medicines” (*zhongxiyi jiehe zhuanjia*). The only expert and representative of TCM who ranks among the 177 local members of the two Academies, Dr. Shen is the subject of pride, envy, and controversy within TCM communities. Having graduated from the Shanghai no. 1 Medical College in 1952, Shen Ziyin was ordered to “apprentice” under Jiang Chunhua, a renowned herbalist. He did so as part of the Chinese party-state’s initiative of “western medicine learning (from) Chinese medicine” (*xiyi xue zhongyi*).

In spite of the name of this initiative, its objective suggests a different directionality between TCM and western medicine. Beginning in the early 1950s, the newly founded People’s Republic of China launched a campaign to standardize, scientize, and institutionalize a diverse set of therapeutic practices under the rubric of “TCM” (Farquhar 1994; Scheid 2002; Taylor 2005; Zhan 2009). TCM was to play a “supplementary role” in New China’s health care system alongside western medicine (*People’s Daily* 1954). It was as part of this larger campaign that biomedical professionals such as Shen Ziyin were brought in to study traditional Chinese medicine by pairing off with established herbalists and acupuncturists. Unlike ordinary disciples of Chinese medicine, these biomedical professionals were in fact asked to familiarize themselves with traditional Chinese medicine so as to accomplish two tasks. First, they were entrusted with the job of helping establish and manage large-scale TCM hospitals and colleges because the overwhelming majority of traditional healers worked at small clinics and private academies. Second, they were instructed to develop a body of “basic theory” (*jichu lilun*)—scientifically verifiable especially through laboratory and clinical experiments—so as to “elevate” (*tishen*) TCM from a mere experiential or empirical medicine to a scientific medicine that is uniquely Chinese (*People’s Daily* 1954).

An integral component of this project was the introduction of standardized textbooks in TCM curriculum and training. As noted by Volker Scheid (2002, 74), the writing of the first national textbook *The Outline of Chinese*

*Medicine* began in 1956 under the direct supervision of the Chinese Ministry of Health, which intended the textbook as a “manual” for biomedical doctors studying TCM. Scheid further observes that this textbook only included classical sources in excerpts and in doing so “pressed” TCM into a somewhat coherent system of knowledge (Scheid (2002, 74)). The introduction of standard textbooks thus eclipsed the importance of compilations of famous healers’ clinical cases (*yi’an*) and classical texts in the teaching, training, conceptualization, and practice of TCM.<sup>8</sup> Most importantly, perhaps, in spite of the shifts and turns in TCM both in and beyond China in the ensuing decades, later textbooks have largely retained the form and structure of *The Outline of Chinese Medicine* and become a standardized conceptual narrative of Chinese medicine itself: one that begins with an affirmation of its empirical roots and history, lays out its basic philosophical and theoretical concepts of Chinese medicine, then moves onto its view of the body and principles for healing, and concludes with specific diagnostic and therapeutic strategies for various illness syndromes. This is a narrative of bifurcation that distances the conceptual from the empirical, theory from method, universal from specific—one readily recognizable by its biomedical audiences.<sup>9</sup>

A closer look at the emergence of “theory” and “empiricism” in the invention of TCM, however, tells a story in which neither is self-evident or stable. To begin, in the *Outline* and its subsequent reincarnations, TCM is characterized as an empirical medicine by and of the Chinese people. Regardless of which particular compilers, educational institutions, and publishers are involved, the textbooks begin with the uniform assertion that Chinese medicine *is* an experiential medicine. An introductory textbook compiled by and used at SHUTCM, one of the first state-run colleges founded in 1956, speaks to this point. Published in 1974 at the height of the Cultural Revolution, this edition of *The Basics of Chinese Medicine* begins with:

Chinese medicine is the summary of thousands of years of experiences of the struggles between our people and illnesses. It encompasses the rich experience and theoretical knowledge coming out of the struggles between the Chinese people and illnesses. (1974, 1)

“Experience,” which has been of long-standing importance in the clinical practice and pedagogy in TCM, is redefined in the language of Marxist materialism and class struggle. In keeping with the fashion at the time, the compilers of the 1974 textbook explicitly draw on Mao Zedong’s writings in formulating the relation between empiricism and knowledge production. Quoting from Mao’s essay “On Practice” (*shijianlun*) that “any truthful

knowledge originates from direct experience” (Mao 1937; cited in *The Basics of Chinese Medicine* 1974, 1),<sup>10</sup> the textbook asserts that it is a historical fact that Chinese medicine is the product of the struggles between the working people of China and illnesses in the course of everyday production and life experience (1974, 1). While not denying the influence of Confucianist and Daoist thinkings in Chinese medicine, the textbook argues that there is only one predictable outcome for the struggles between materialism (represented by the experience of the working people) and idealism (represented by the spiritual works of Confucian and Daoist scholars): the triumph of the working people’s experience and the material dialectic that emerges from it (1974, 9, 19). In spite of the fact that many traditional Chinese and biomedical practitioners who participated in founding SHUTCM—as well as the first few cohorts of students—came from well-to-do families and/or professional families that have successfully practiced Chinese medicine for generations, “empiricism” is made continuous with a class-girded conception of “work” and “material struggle” as the relation between humans, and the world is redefined as fundamentally material, dialectical, and a history of enlightenment and progress.

The experience of the Chinese people, once crafted as the origin of traditional Chinese medicine, is in need of being elevated to the status of scientifically verifiable theory. This was the beginning of a truly stunning career in which Dr. Shen’s research on the *shenbenzhi*, which he translated as “the material essence of kidney,” became one of the most successful and widely cited examples of discovering scientific explanations for traditional Chinese medical concepts. After his apprenticeship, Dr. Shen embarked on a lifetime project in laboratory and clinical experiments in search of scientific explanations for basic Chinese medical concepts. He chose to study *shenyang xuzheng*, commonly translated as “the syndrome of kidney yang deficiency.” Among the visceral-functional systems in the Chinese medical body, *shen* is considered to be the foundation of inborn constitutions. In dealing with “kidney yang deficiency” or simply “KYD,” Dr. Shen purposefully went for the most basic of basics.

Among TCM communities, however, Shen Ziyin’s (1996) project was highly controversial and is debated to this day. On one hand, the Chinese word “shen/腎” was used around the turn of the twentieth century to translate the anatomical kidney in biomedicine, and “kidney” was in turn used to translate “shen/腎” into English. In everyday lay discourse, “shen” is often conflated with the anatomical kidney, and this conflation is used by opponents as well as some young TCM students as evidence that Chinese medicine is vague, unscientific, or downright ignorant about human anatomy

(Zhan 2011). On the other hand, many practitioners cite the *Yellow Emperor's Internal Canon* to argue that “shen” is not only a visceral and metaphorical system that regulates urinary, sexual, and reproductive functions but also part of a dynamic world of people and things through which *qi* or “vital energy” circulates and takes on embodied and specific properties. “Shen” is notoriously susceptible to emotions, stress, excess in lifestyle, and environmental changes, and is treated as such by experienced practitioners in everyday clinical practice (Zhan 2011). A few senior practitioners and their students argue that there is simply no correspondence between the Chinese medical approach to bodies in flux and the anatomical body of western medicine. Translation is simply futile according to this view. As argued by Lydia Liu (1995), translation is not so much about the transformation of meanings as it is about how novel concepts, meanings, and identities are invented through encounters and relations of power. It follows, then, that rather than bridging or reducing epistemological gaps and differences, translation is where new knowledges are created and, just as important if not more so, where *terms* of differences are settled. In the case of the translation of shen/腎/kidney, new and asymmetrical differences between TCM and biomedicine are created and new anatomical realities emerge in due process.

Dr. Shen Ziyin is among those who believe in the translatability of shen—but with a twist. In 1999, in a special issue of the *Chinese Medical Journal* (a primarily biomedical publication) that celebrated the fiftieth anniversary of the People's Republic of China, Dr. Shen (1999, 973) recounted his research on KYD. Defining his project as one that combined “traditional Chinese medical theory with modern scientific methods,” Dr. Shen argued that his research since 1959 had resulted in a new research approach to *bianzheng lunzhi*, commonly translated as “treatment based on syndrome differentiation,” one of the most distinctive therapeutic methodologies in TCM (Farquhar 1994). It is a methodology of the experiential and the particular. Intimately embedded in pedagogical and clinical experience, *bianzheng lunzhi*, as Volker Scheid puts it,

...is not about matching patterns with prescriptions but about a synthetic understanding of how concrete symptoms are linked to each other within particular disease mechanisms. This...requires the continued engagement with both patients and classic texts, not merely the memorization of symptom patterns and matching [herbal] formulas. (2002, 231)

In contrast, Dr. Shen's “new approach” to *bianzheng lunzhi* is decidedly deductive. Having eliminated what he called “interferences” that might

obscure his pursuit of the material essence of KYD, Dr. Shen (1999, 973) used “the most advanced criteria reflecting the functions of the hypothalamic-pituitary-adrenocortical axis in the 1960s” to confirm that the evidence coming out of his lab “suggests that the deficiency of kidney *Yang* tends to involve the dysfunction of three target gland axes, it can therefore deduce that a key link of it may be in the hypothalamus.” The syndrome of KYD, then, is understood as a malfunction of the hypothalamus (Shen 1976, 1999). Shen Ziyin refutes the argument that “shen” was just an imprecise recognition of kidney, and in doing so, undoes the unequal translational practice that makes “shen” comparable with kidney—a comparability that rendered Chinese medicine an empirically imprecise and therefore inferior form of medical knowledge. However, instead of restoring the metaphorical and functional conceptualization of “shen,” Dr. Shen Ziyin’s research substitutes one anatomicopathological explanation with another: it is not that Chinese medicine is confused about what kidney was, but rather that the objective materiality of Chinese medicine needs to be examined more carefully and thought about more creatively through scientific methods. Deductive thinking remains intact.

Dr. Shen’s laboratory and clinical research results are hailed as a success in using scientific experiments to verify the newly formed theoretical core of TCM, but they accomplish this at a price. First, even though his research helps scientize and thereby legitimize the conceptual underpinning of Chinese medicine, it does so by considering Chinese medicine only in a rigid and narrow materiality and, more critically, through the modernist understanding of the body and its particular brand of medical theory which makes invisible the work of metaphors, mediations, and analogies. This is already a reductive view of the materiality of the body, a product of Cartesian dualistic thinking and, more recently, the transformation of the modern body into a closed system in opposition to the rest of the world (Cohen 2009). Most crucially, perhaps, the metaphors and mediations so explicit and central in Chinese medical understandings of shen are fragmented, transformed, and obscured by the anatomicopathological theory of body and disease. The specificity and contingency of *bianzheng lunzhi* is replaced by the scientifically verifiable “theory” of SYD, and “thinking” loses out to the double bind of “theory” and “essence.” This is not just about the loss of the Ancients, but is itself illustrative of the processes of purification and hybridization of the Modern Constitution identified by Latour. The bifurcation of theory and empiricism disarticulates the works of mediations in the thinking of TCM as well as the ways in which “experiments” and “theory” are used metaphorically to reconstitute TCM as scientific knowledge. Dr. Shen Ziyin’s

experimentation with TCM thus both disguises and relies on what Ed Cohen (2009, 35) calls the “theoretical deployments of metaphor and the metaphorical uses of theory [that] organize the imaginary work of experimentation and research.”<sup>11</sup> Furthermore, Shen Ziyin’s experiments on the nature and essence of shen also re-create a hierarchy of empiricisms that, for some, calls into question what counts as experimentation. STS scholars have long queried the sociality of experimentation, from its historical entanglements in politics, society, and modernity to its own internal contingencies (see, e.g., Hacking 1999; Latour and Woolgar 1979; Petryna 2009; Shapin and Shaffer 1989). Critics of Shen Ziyin’s work, especially those who are TCM professionals, often question why laboratory and clinical researches and trials are necessary in the first place, given the fact that TCM is supposed to be an experiential medicine with a long empirical history behind it. As these practitioners repeatedly put it to me during my field research, “Do several thousand years of experience not count as ‘evidence?’ What more proof do they need?” This, to be sure, is not about the Ancients and their experience pitched against Modern science. Rather, it is one modernist articulation deployed against another, and out of this deployment we can glimpse the possibilities for the nonmodern—to which I now turn.

### **Empiricism, Metaphorically**

Over the last thirty years or so, Marxist and Marxist-inspired materialism, as well as the rhetoric of class struggles and visions for a socialist modernity, has given away to postsocialist discourses of science and modernity in TCM today. Yet bifurcations continue to proliferate. To begin, we need to look no further than the new editions of introductory textbooks compiled by and used at SHUTCM. A recent edition of *Basics Theory of Traditional Chinese Medicine*, a required reading for all incoming students, opens with the following paragraph:

Chinese medicine has several thousands of years of history. It is an extremely rich summary of the longtime struggles between the Chinese people and illnesses. It is an important component of the excellent culture of China. Influenced and guided by ancient Chinese philosophical thinking, accumulated through longtime clinical practice, having lent and borrowed from other disciplines, influenced by and influencing medical knowledge both in and outside of China, traditional Chinese medicine has formed its own unique system of medical theory, and has made tremendous contributions to the healthcare enterprise of the Chinese people and the prosperity of the Chinese nations. (Wu et al. 1995)

This passage keeps the language of class struggle to the minimum, and instead highlights the binary of experience and theory in the formation of traditional Chinese medicine. It seems that projects such as Dr. Shen Ziyin's are all but *fait accompli*. If anything, science and technology has come to play an even more prominent role as China strives to "get on track with the world" (*yu shijie jiegui*). Indeed, one of the most popular slogans these days is "use science to invigorate the nation" (*kejiao xingguo*), which is dutifully carried across various social and political scales: during my fieldwork at the Shuguang Hospital of TCM, one of the teaching hospitals of the SHUTCM, I was greeted every morning by the sign "use science to invigorate the hospital" (*kexue xingyuan*) as I arrived for work each day.

However, if standardized textbooks and scientific experiments tend to emphasize TCM as an experiential medicine to be lifted to the level of biomedicine through scientific experiments and theorization, the nature of empiricism and theory remains contested among TCM practitioners. On one hand, many young practitioners and students doing their clinical rounds at Shuguang Hospital complain that they do not learn anything until they start working under senior practitioners in the clinic. "You don't learn anything in the first few years at the SHUTCM," they would tell me. For many of these young students, the reframing of metaphorical and analogical thinking in terms of "theory" and "empirical experience" in TCM textbooks and training (as well as their own rigorous high school training in natural sciences) means that they find traditional Chinese medical theories vague and repetitive. Even for those who still feel passionately about Chinese medicine, the consensus is that biomedicine would be the rational choice of a career in medicine whereas TCM would be a choice by "heart."

Even in the clinic, the controversy over the knowledge production in and of TCM remains unresolved. Science-minded young TCM practitioners are sometimes fiercely critical of their seniors and mentors. The biggest complaint again has to do with the presumed "vagueness" and "inaccuracy" in the conceptualization and practice of TCM. As one young practitioner told me,

Take cancer for example. If you go to a western hospital, you know exactly how you will be treated: surgery and radiation that will take the tumor out. Cancer is cancer, right? It's all very clear. But when I study under different senior herbalists, one would say that we need to "clear the heat and eliminate the toxins" (*qingre jiedu*), one would try to "tonify the center and harmonize qi" (*lizhong heqi*), and another would talk about "soften the hard and dissolve

the phlegm” (*ruanjian huatan*). Which one is which? And how can you detect a tumor by feeling somebody’s pulse anyway?<sup>12</sup>

However, what this young practitioner ascertains as the weakness of TCM is precisely what some senior practitioners consider to be its strength. As Dr. Fan, a senior practitioner of herbal medicine puts it:

Yes, there is a robust empirical tradition within Chinese medicine. It is hard to be a good doctor, whether in traditional Chinese or western medicine. But people think that because ten different Chinese doctors can come up with ten different prescriptions for the same patient, traditional Chinese medicine must be based in *individual* experiences. But we believe all roads lead to Rome. If you look at it, western medicine is inseparable from individual experience as well. Why don’t people call surgery an experiential medicine? When we look for someone to do surgery on us, don’t we look for a surgeon with a lot of experiences? The criteria for judging traditional Chinese medicine and western medicine should be the same—right now they are entirely illogical.

Dr. Fan is acutely aware of the hierarchy of theory and empiricism—as well as the contested nature of the theoretical and the empirical—that has localized and marginalized TCM in a translocal space and scale of medical knowledge production and professionalization. Embedded in his narrative too is a commitment to the empirical-as-conceptual at the center of which the multiplicity and contingency of knowing and being. Even though he quotes the popular English saying “all roads lead to Rome,” for him there are many possible “Romes.” The fact that ten different Chinese doctors can come up with as many prescriptions is not a matter of different perspectives on the same phenomenon, but the result of the ways in which particular clinical observation and analysis on one hand, and the specific illness, person, and syndrome on the other, only take on concrete shapes through intra-action.

First, “same treatment for different illnesses, different treatments for the same illness” (*yibing tongzhi, tongbing yizhi*) is upheld and executed as one of the most important conceptual and therapeutic principles by many experienced practitioners. As Niu Shuhao, a practitioner who is especially well known for his expertise in treating common colds told me,

Don’t ask me what is the best treatment for the common cold. There isn’t one. Each case is different: some colds are the result of “hot wind” (*fengre ganmao*) and some are due to “cold wind” (*fenghan ganmao*). Some are syndromes of excess (*shizheng*), and some are syndromes of deficiency (*xuzheng*). I would

treat an old person and a child differently. And I would treat a patient in the spring and autumn differently.

What Dr. Niu explains in so many words is the spirit of *bianzheng lunzhi*, a critical analytic in traditional Chinese medicine that approaches an illness in all its environmental, social, and personal dimensions through the changes during the entire course of the illness. In other words, it is an analytic that embraces the multiplicity and contingency of our worldliness through particular and embedded diagnoses and treatments. It depends as much on the phenomenon at hand as it depends on the particular repertoire of diagnostic and treatment methods of a given practitioner. Indeed, some of the most accomplished practitioners are known for being experts in using a specific kind of herb, sticking to a favorable treatment principle (clear the heat, e.g.,—regardless of cancer or not), or being knowledgeable in the variations of a particular syndrome. They are the experts in thinking and doing in the specific.

Second, some of the key therapeutic concepts in traditional Chinese medicine do not easily succumb to strategies of scale making and abstraction. Take the concept of *feng*, or wind, for example. TCM practitioners today continue to speak of “internal winds” (*neifeng*) that lead to strokes and seizures, and “external winds” (*waiifeng*) as the cause of the common cold, flu, facial paralysis, and other kinds of infectious and seasonal illnesses. Feng does not exist in the abstract. In his account of wind, which since the Han dynasty has emerged as the “chief of all diseases,” the historian Shigehisa Kuriyama argues that irregularity and change are the norm whereas harmony remains an aspiration for bodily practices and therapeutic interventions in TCM. The concept of wind and the formulation of the irreducible body in TCM are co-imagined and co-produced at a time when medical classics such as *Huangdi Neijing*, the Yellow Emperor’s Internal Canon, are compiled. Kuriyama (1994) argues that wind in Chinese medicine is not a natural phenomenon but is itself “alteration and force of change” and only exists in the specific, whether cosmic, local, or personal. Rather than pitching immaterial minds against material bodies, individuation simply mirrors the plurality and unpredictability of winds, as the imagination of wind springs from a concrete *experience* of oriented space and local place, a directly felt sense of seasonal drift and personal moods (1994, 34, 37-38).

The imaginary of therapeutic and ontological concepts such as the wind is metaphorical, analogical, *and* material. Such metaphorical and analogical thinking and imagination, incidentally, represent some of the most recent efforts in getting beyond strategies of bifurcation and in expanding the

conceptual–methodological repertoires of STS. In *Signature of All Things*, Giorgio Agamben (2009) revisits Thomas Kuhn’s groundbreaking work on paradigmatic shifts in the production of modern science by turning Kuhn’s structural analysis of “paradigm” into one that centers on process and discursivity. Agamben (2009, 31) argues that “a paradigm is a form of knowledge that is neither inductive nor deductive but analogical. It moves from singularity to singularity.” For him,

While induction proceeds from the particular to the universal and deduction from the universal to the particular, the paradigm is defined by a third and paradoxical type of movement, which goes from the particular to particular. (2009, 19)

Foregrounding the implication of Michel Foucault’s work that the actual knowledge is only a *moment* (emphasis mine) of the “norm” *process* of making knowledge (p. 10), Agamben makes the argument that even though both he and Foucault write about “actual historical phenomena,”<sup>13</sup> these phenomena are not just empirical materials the significance of which is limited and contained within the materials. To the contrary, these particular phenomena *are* theory.<sup>14</sup>

## Conclusion: Thinking, Doing, and Being

Anthropology, my home discipline, has a long history in empiricism. Indeed, Franz Boas, the “founding father” of American anthropology, was also an empiricist of the staunchest conviction. Boas’ idea of empiricism was never unthoughtful. It was, in my view, a theory of no theory that allowed him to reflect upon different modes of knowledge production and carve out a space for what he calls “cosmography,” a precursor of anthropology. Working within the positivist tradition, Boas (1940, 643) argued that “[the] origin of every science we find in two different desires of the human mind, —its aesthetic wants, and its interest in the individual phenomenon.”<sup>15</sup> The quest for regularity, law, and abstraction, according to Boas, is but the manifestation of our aesthetic impulse (Boas (1940, 643)). Cosmography, in contrast, was steeped in “the personal feeling of man towards the world,” and finds a single phenomenon interesting not because it is explainable but because it is true (Boas (1940, 643)). It was by being empirical—thinking and doing the specific—that Boas overthrew the overarching paradigm of sociocultural evolution, and laid the ground for a vibrant tradition in pluralism and relativism.

In the spirit of Franz Boas, I argue for a kind of analytic grounded in the empirical-as-conceptual. This is the kind of analytic that requires transdisciplinary engagements that suspend the divide between theory and phenomenon and force us to constantly rethink and redo the phenomenon at hand. traditional Chinese medicine, to be sure, is itself a modern invention and by no means a cure-all (pun intended) for modern diseases. Nor is the emphasis on cosmological holism, as the historian John Henderson (1984) reminds us, a protection against the advances of the modern. What is important here is the predicaments of traditional Chinese medicine are thoroughly modern but their solutions might point toward the nonmodern. In order to keep these nonmodern possibilities alive, it is not enough to embrace traditional Chinese medicine as another subject under the gaze of STS. The fact that traditional Chinese medicine cannot be fully accounted for by bioscience—or by STS and anthropology for that matter—is not evidence of the limits of relativism, but rather that relativism has not gone far enough. It is our habitual modes of analysis, along with our aesthetic impulses, that need to be relativized. What is necessary here is not another instance of bifurcation that subsumes traditional Chinese medicine under the umbrella of STS as a subject of study, but a transdisciplinary effort in restoring a sense of oneness in our approach to ways of thinking, doing, and being—especially nonmodern articulations of the empirical *as* conceptual. In doing so, it might become possible to take traditional Chinese medicine seriously—to “world” it so to speak—as an experiential medicine that gives rise to analytics in and of the specific, the contingent, and the experiential, and that works by metaphors and analogies rather than deductions and inductions. Contrary to Dr. Zhao’s comments at the beginning of this essay, the contingent in traditional Chinese medicine is not what needs to be “controlled”: traditional Chinese medicine thrives on it. Here lies, I think, the potential of traditional Chinese medicine to partially undo the effects of modernity and especially the modernist bifurcation of the conceptual and the empirical. If traditional Chinese medical practitioners can get on without bifurcations, so can us STS scholars.

### **Acknowledgment**

I thank Christopher Gad and David Ribes for conceptualizing this special issue and drawing me in through thoughtful and thought-provoking conversations. I am immensely grateful to the two anonymous reviewers for their extraordinary insights and constructive comments. Along the way, conversations with Stefan Helmreich, Casper Bruun Jensen, Sean Hsiang-lin Lei, George Marcus, Bill Maurer, Gergely Mohacsi, Atsuro Morita, Lisa Rofel, Volker Scheid, and Sylvia Yanagisako have been instrumental and inspirational in bringing this essay to fruition. I also thank Ed Hackett and Katie Vann for their support, guidance, and patience throughout this process.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

This research was partly funded by the Center for Asian Studies, UC Irvine.

### Notes

1. "TCM" may appear to be a straightforward acronym of "traditional Chinese medicine." To be more precise, however, TCM is the product of the standardization and institutionalization of traditional Chinese medicine (TCM) in the People's Republic of China in the 1950s (see, e.g., Farquhar 1994; Scheid 2002; Taylor 2005; Zhan 2009). In this essay, I use "TCM" when referring specifically to this institutional version of traditional Chinese medicine.
2. "Haipai," or Shanghai-style, should be understood within Shanghai's larger reputation as a hub for translocal migration and cultural hybridization especially during its rise as a metropolis in the wake of the Opium War (1839-1842). Shanghai is both admired and disparaged for constant cultural inventions and irreverence for "authenticity." Although today the TCM community in Shanghai is not necessarily unique in its integrative approach to biomedicine and bioscience, it pioneered bioscientific research projects, integrative therapeutic techniques (e.g., acupuncture anesthesia), and curricular overhauls in the 1960s and 1970s. The TCM community in Shanghai remains among the most enthusiastic and systematic in exploring new and translocal reinventions of TCM.
3. In order to protect the identity of my correspondents, I use pseudonyms for them throughout this essay.
4. As the anthropologist, Timothy Choy puts it in his study of "air" in Hong Kong, discourses of the conceptual and the empirical, when made continuous with the divides between the universal and the particular, the abstract and the concrete, "suffers from vertigo without rooting" (Choy 2011).
5. Disciplinarity, as STS scholars have long argued, is itself a product of divisions and bifurcations (Cohen 2009; Latour 1993; Shapin and Shaffer 1989; Wolfe 2009).
6. See, for example, Hacking (2000); Jensen (2011); Latour (1987, 1993); Pickering (1992); Strathern (1990) for discussions of relativism and constructivism in STS and anthropology.
7. As I have argued elsewhere (Zhan 2009), this division of labor is becoming blurred with the emergence of transnational studies in both medical anthropology and cultural and social studies of science, and especially through the embracement of the theories and methodologies of science studies by medical

anthropologists. On one hand, recent works in science studies begin to examine discourses and practices of science and technology outside of Europe and North America—especially through an engagement with theories of transnationalism, globalization, and late capitalism. On the other hand, leaving behind the comfort zones of relativism and ethnomedicine and at the same time holding onto its concerns over difference, similitude, heterogeneity, and diversity, critical medical anthropology has come to be increasingly interested in the politics of knowledge production through translocal fields of power, and draws on concepts and analytical tools developed by science studies.

8. Whereas compilations of clinical cases were (and continue to be) a most important source of learning for aspiring practitioners of traditional Chinese medicine (Scheid 2002; Zhan 2009), canonical texts such as *the Yellow Emperor's Internal Canon* served more as symbolic references rather than the theoretical foundation of TCM (see Farquhar 1994).
9. The attempt to theorize TCM through textbooks, moreover, is not localized efforts in China in the 1960s. Taylor (2005) points out, for example, that western scholars of traditional Chinese medicine such as Manfred Porkert also played instrumental roles in creating the “basic theory” of TCM—which was then circulated into China and reincorporated into the efforts to theorize TCM.
10. The original sentence in Mao's (1937) essay “On Practice” is preceded by “If you want to understand revolutionary theories and methods, you would have to participate in the revolution.”
11. After all, seeming essential scientific concepts such as gravity, relativity, uncertainty, and chaos, as Ed Cohen reminds us, are theoretical and metaphorical tropes the origins of which are out of the domain of “science.” (2009, 35)
12. Pulse palpitation is a basic diagnostic technique in traditional Chinese medicine. The practitioner would take the pulses on the patient's wrists to determine the overall bodily constitution of the patient and the particular state of the syndromes afflicting their health.
13. *Homo Sacre*, the *Muselmann*, the state of exception, and the concentration camp in Agamben's work, and sexuality, prison, and clinic in Foucault's.
14. See Koopman and Matza (2013), however, for an insightful analysis of how Agamben departs from this position in his deployment of Foucaultian “theory” especially in *Homo Sacre*.
15. In the original article published in the journal *Science* in 1887, the equivalent sentence reads “the origin of every science we find in two different desires of the human mind—its aesthetic wants, and the feelings, which are the sources of the two branches of science” (1887, 139). Interestingly, in the 1940 version, Boas changed “the feelings” to “its interest in the individual phenomenon.” One might consider this a much earlier “affective turn” than the one we witness in anthropology today.

## References

- Agamben, Giorgio. 2009. *The Signature of All Things: On Method*, translated by Luca D'Isanto with Kevin Attell. New York: Zone Books.
- Barad, Karen. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.
- Boas, Franz. 1940. "The Study of Geography." In *Race, Language and Culture*, 639–47. New York: The Free Press.
- Chen, Kaixian. 2009. "The Convergence of Eastern and Western Medicines is the Future Direction of Medicine (*Dongxifang yixue huiju shi weilai yixue fangxiang*)." *Chinese Newspaper of Chinese Medicine* (*zhongguo zhongyiyao bao*), November 19, 1.
- Choy, Timothy. 2011. *Ecologies of Comparison: An Ethnography of Endangerment in Hong Kong*. Durham, NC: Duke University Press.
- Cohen, Lawrence. 1998. *No Aging in India: Alzheimer's, the Bad Family, and Other Modern Things*. Berkeley: University of California Press.
- Cohen, Ed. 2009. *A Body Worth Defending: Immunity, Biopolitics, and the Apotheosis of the Modern Body*. Durham, NC: Duke University Press.
- Dolling, Irene, and Sabine Hark. 2000. "She Who Speaks Shadow Speaks Truth: Transdisciplinarity in Women's Studies and Gender Studies." *Signs* 25 (4): 4.
- Farquhar, Judith. 1994. *Knowing Practice: The Clinical Encounter of Chinese Medicine*. Boulder, CO: Westview Press.
- Foucault, Michel. 1994. *The Order of Things: An Archaeology of Human Sciences*. New York: Vintage.
- Gad, Christopher, and Casper Bruun Jensen. 2010. "On the Consequences of Post-ANT." *Science, Technology, & Human Values* 25 (1): 55–80.
- Hacking, Ian. 1999. *The Social Construction of What?* Cambridge, MA: Harvard University Press.
- Hacking, Ian. 2000. *The Social Construction of What?* Cambridge, MA: Harvard University Press.
- Helmreich, Stefan. 2009. *Alien Ocean: Anthropological Voyages in Microbial Seas*. Berkeley: University of California Press.
- Henderson, John. 1984. *The Development and Decline of Chinese Cosmology*. New York: Columbia University Press.
- Jensen, Casper Bruun. 2011. "Introduction: Contexts for a Comparative Relativism." *Common Knowledge* 17 (1): 1–12.
- Koopman, Colin, and Tomas Matza. 2013. "Putting Foucault to Work: Analytic and Concept in Foucaultian Inquiry." *Critical Inquiry* 39 (4): 817–40.
- Kuriyama, Shigehisa. 1994. "The Imagination of Winds and the Development of the Chinese Conception of the Body." In *Body, Subject and Power in China*,

- edited by Angela Zito and Tani Barlow, 36. Chicago: University of Chicago Press.
- Langford, Jean. 2002. *Fluent Bodies: Ayurvedic Remedies for Postcolonial Imbalance*. Durham, NC: Duke University Press.
- Langwick, Stacey. 2011. *Bodies, Politics, and African Healing: The Matter of Maladies in Tanzania*. Bloomington: Indiana University Press.
- Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.
- Latour, Bruno and Steve Woolgar. 1979. *Laboratory Life: The Construction of Scientific Facts*. London: Sage.
- Latour, Bruno. 1993. *We have never been Modern*, translated by Catherine Porter. Cambridge, MA: Harvard University Press.
- Lei, Sean Hsiang-lin. 2002. "How Did Chinese Medicine Become Experiential? The Political Epistemology of Jingyan." *Positions* 10 (2): 333–64.
- Liu, Lydia. 1995. *Translingual Practice: Literature, National Culture, and Translated Modernity—China, 1900-1937*. Stanford, CA: Stanford University Press.
- Mao, Zedong. 1937. *On Practice: On the Relation Between Knowledge and Practice, between Knowing and Doing. Selected Works of Mao Zedong*. Peking, China: Foreign Languages Press.
- Marcus, George. 2008. "The End(s) of Ethnography: Anthropology's Signature Form of Producing Knowledge in Transition." *Cultural Anthropology* 23 (1): 1–14.
- Maurer, Bill. 2005. *Mutual Life, Limited: Islamic Banking, Alternative Currencies, Lateral Reason*. Princeton, NJ: Princeton University Press.
- Mohacsi, Gergely, and Atsuro Morita. 2013. "Traveling Comparisons: Ethnographic Reflections on Science and Technology." *East Asian Science and Technology Studies* 7 (2): 175–83.
- Mol, Annmarie. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- People's Daily*. 1954. "Guanche Duidai Zhongyi De Zhengque Zhengce." (Carry out the correct policy on Chinese medicine), October 20, 1.
- Petryna, Adriana. 2009. *When Experiments Travel: Clinical Trials and the Global Search for Human Subjects*. Princeton, NJ: Princeton University Press.
- Pickering, Andrew. 1992. *Science as Practice and Culture*. Chicago: University of Chicago Press.
- Scheid, Volker. 2002. *Chinese Medicine in Contemporary China: Plurality and Synthesis*. Durham, NC: Duke University Press.
- Shapin, Steven, and Simon Shaffer. 1989. *The Leviathan and the Airpump*. Princeton, NJ: Princeton University Press.

- Shen, Ziyin. 1976. "Dui Zuguo Yixue 'Shen' Benzhi de Tantaoyao (An Investigation of the Essence of Kidney in the Motherland's Medicine)." *Chinese Journal of Internal Medicine* 1976 (1-2): 80-85.
- Shen, Ziyin. 1999. "The Location of Deficiency Syndrome of Kidney Yang." *Chinese Medical Journal* 112 (11): 973-75.
- Strathern, Marilyn. 1990. *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*. Berkeley: University of California Press.
- Strathern, Marilyn. 1991. *Partial Connections*. Lanham, MD: Rowman and Littlefield Publishers.
- Strathern, Marilyn. 2011. "Binary License." *Common Knowledge* 17 (1): 87-103.
- Taylor, Kim. 2005. *Chinese Medicine in Early Communist China, 1945-63*. New York: Routledge.
- Traweek, Sharon. 1988. *Beamtimes and Lifetimes: the World of High Energy Physicists*. Cambridge, MA: Harvard University Press.
- Wolfe, Cary. 2009. *What Is Post Humanism?* Minneapolis: University of Minnesota Press.
- Zhan, Mei. 2009. *Other-worldly: Making Chinese Medicine through Transnational Frames*. Durham, NC: Duke University Press.
- Zhan, Mei. 2011. "Worlding Oneness: Daoism, Heidegger, and Possibilities for Treating the Human." *Social Text* 109:5. *Special issue on China and the Human*, David L. Eng, Teemu Ruskula, and Shuang Shen, eds.

### Author Biography

**Mei Zhan** is Associate Professor of Anthropology at UC Irvine. She works in the areas of medical anthropology, STS, China studies, and transnationalism and globalization. She is the author of "Other-Worldly: making Chinese medicine through transnational frames" (Duke University Press, 2009).