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Walking on a Bridge You Also Built: Practitioners' Experience Navigating the Borderland Between Western and Chinese Medicine

Rachel H. Levine

Bates College, rlevine@bates.edu

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Walking on a Bridge You Also Built:
Practitioners' Experience Navigating the Borderland Between Western and Chinese Medicine



An Honors Thesis
Presented to
The Faculty of the Department of Anthropology
Bates College

In partial fulfillment of the requirements for the
Degree of Bachelor of Science

By

Rachel Hannah Levine
Lewiston, Maine
March 30, 2014

Dedicated to the continued effort of
creating a more just and equitable
healthcare environment, and to all those
who make this their priority.

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“Understanding Chinese medicine does not mean you have to stop thinking in Western paradigm, it’s just a different approach, and different way to look at the world, but does not need to replace any other” (Dr. Richard Hobbs)

“It’s not overlap, like if [for example] someone has heartburn and I was going to give them an antacid it’s not like there is a point for heartburn. But, there are some points [that have ways of corresponding] ...and then you get to know what those points do, and then it becomes easier to understand that....But the treatment itself is not the same, and the diagnosis itself is not the same” (Dr. Erica Lovett)

Chapter 1:

Doctors, Acupuncturists, Healers...*La Mestiza*

I was first introduced to Chinese medical philosophy in a classroom on the top floor of the Traditional Chinese Medicine Hospital of Yunnan in Kunming, China. Even as I hurriedly copied down a star-shaped diagram explaining how each of the five elements (water, wood, fire, earth, metal) can nurture and control another, I was already forming questions about which chemical cascade pathways connected the elements, and whether or not veins linked the various organs associated with each of the elements. While walking to the classroom, my class of thirteen American students and I had passed by patients with large glass bulbs suctioned to their skin, witnessed smoking herbal sticks attached to the ends of thin acupuncture needles, and observed inversion tables that strapped patients upside down. It was fascinating, disconcerting, and most of all confusing to witness a major medical institution treating patients with practices unlike anything I had ever seen in my twenty years visiting doctors in the United States.

During this first lecture on the foundations of Chinese medicine my understanding of the human body was challenged in multiple ways, most predominantly by the realization that an entire system of energy pathways (meridians) existed beyond the scope of human vision, even

with the help of advanced imaging technology. As I continued to learn about Chinese medical practices and beliefs concerning human anatomy, well-being, and healing, I struggled to award it the same legitimacy as the biomedicine I had grown up with. Perceiving no obvious connections between the two, I found it difficult to incorporate these new concepts into one cohesive reality concerning the body. While a foundation in biomedicine has allowed me to internalize one understanding of the natural world around me, including the structure and function of many complex organisms, it has left me wildly unprepared to understand the foundations of Chinese medicine. This confusion motivated the following yearlong inquiry into how Chinese Medicine is understood and practiced within the biomedically dominated healthcare system of the United States.

Issues of authority and legitimization are inseparably woven together with the practice and understanding of Chinese medicine in the United States. Medicine in the U.S. is highly regulated, and there is much skepticism over things that cannot be understood in biomedical reference frames. The difficulty of direct translation between these two modes of healing challenges both practitioners and American medical institutions to accept that two simultaneously valid understandings of the body can exist without a clear connection or explanation linking the two. Without such distinct connections, many doctors are tempted to dismiss Chinese medicine in favor of biomedical interventions, whose effects can most often be confirmed by visual evidence. The inability to understand one in the other's terms raises uncomfortable questions regarding reality, efficacy, safety, regulation, and ultimately the legitimacy of the non-biomedical practice.

The discomfort experienced while attempting to understand Chinese medicine in biomedical terms, and the resulting questions about its legitimacy and authority, are not

dissimilar to the experiences of Gloria Anzaldúa's "*La mestiza*." *La mestiza* is an individual who holds two or more identities, belongs to two or more cultures, and must continuously navigate the physical or conceptual borderland between them. Anzaldúa's term *la mestiza* originated from *mestizos*, "...a new hybrid race" of Spanish and Mexican-Indian heritage. It describes those who still inhabit the physical border between Mexico and America, as well as those who possess and reconcile other dual identities (Anzaldúa 2007:27). Anzaldúa describes this borderland as, "...a vague and undetermined place created by the emotional residue of an unnatural boundary. It is in a constant state of transition" (Anzaldúa 2007: 25). The division between Chinese and Western medicine can sometimes feel insurmountably great, while at other times the differences may seem trivial, but a boundary is always there, its landscape constantly reshaped by the environment it is practiced in, and continued research into the connections between the two.

A healthcare provider who understands both Western and Chinese medicine must continually navigate this borderland, and its transitions, often resulting in confusion and distress surrounding their dual practice. This confusion is characteristic of *La mestiza*, as, "The ambivalence from the clash of voices results in mental and emotional states of perplexity. Internal strife results in insecurity and indecisiveness. The *mestiza's* dual or multiple personality is plagued by psychic restlessness" (Anzaldúa 2007:100). Such strife could be paralyzing. However, as this thesis will demonstrate, practitioners of Chinese medicine who have a background in Western medicine have developed certain strategies to overcome them. These personal strategies have formed within the environment of American healthcare institutions, and may be useful for informing future efforts of integration and incorporation.

Previous Approaches to Similar Questions

This study is inspired by the difficulty of learning Chinese medicine in biomedical terms, and should rightfully start by asking, “What makes Chinese medicine so hard to understand for those accustomed to biomedical concepts of the body?” Since every practitioner I spoke with at one point struggled to connect biomedical and Chinese medical concepts this question will be addressed throughout the thesis. First, I wish to summarize how other researchers have approached this question, and some of the difficulties they uncovered.

The challenge of communicating Chinese medical ideas with biomedical language originates with the relatively independent development of both medical theories. This creates a Western medical language with no reasonable “linguistic label” for essential concepts, such as *qi* [a vital energy or breath] or *jingluo* [circulation tracts, meridians] (Sagli 2010:317; Sagli 2001:214). Effective communication and translation is further complicated by the lack of any “standard [English] terminology” (Pritzker 2012:346), resulting in multiple accepted translations for many key Chinese medical terms and ideas. Such plurality creates an environment where even teachers and textbooks, often thought to communicate indisputable facts by those accustomed to biomedical teaching styles, must employ different strategies to establish authority in their chosen translation before the practice can be understood and accepted by students (Pritzker 2012:348).

Sonya Pritzker is an anthropologist who studies the ways in which American students of Chinese medicine actively work with their instructors to translate key terms, developing a unique understanding of the practice. She has suggested that the inevitable points of contention, or moments of confusion, between these two medical modalities provides the opportunity for students to reflect on Chinese medical concepts as well as, “...develop a strong discursive

consciousness about translation,” encouraging them to recognize the limits of purely linguistic translation practices (Pritzker 2012:357). In her work, Pritzker approaches the topic of understanding Chinese Medicine through theories of sociolinguistics and translation studies: analyzing the textual, verbal, and physical instruction students receive, and how they come to internalize these concepts.

Through studying this internalization of knowledge, Pritzker developed her theory of “living translation,” enabling her to capture the multi-dimensional way students come to understand Chinese medicine including a combination of literature, spoken word, physical experience, and dialogue between members of a classroom. Students create their own understanding of Chinese medical concepts based on these resources, placing Chinese medical concepts in a dialogue with their own cultural beliefs and references (Pritzker 2010; 2012; 2014).

Also focusing on educational spaces, the Norwegian researcher Gry Sagli, approaches the topic of understanding Chinese medical concepts by asking how Chinese medical philosophy, and not just the physical practice of inserting an acupuncture needle, is incorporated and integrated into the existing medical practices and beliefs of Norwegian physicians who learn medical acupuncture (Sagli 2001; 2010). German sociologists Robert Frank and Gunnar Stollberg also observed the incorporation of Chinese medicine by physicians, conducting a study, published in 2004, exploring hybridization within medicine as a result of a more globalized world. Through interviews with German physicians who also practiced Asian medicine (Acupuncture and Ayurveda), to varying degrees, Frank and Stollberg developed four categories of hybridization carried out in the doctors’ practices, helping to fill a noted gap in research about how globalization impacts medical practices. While Frank and Stollberg observe physicians combining East Asian and Western diagnostic methods and treatments, I would argue based on

my research that such direct hybridization is rare, if not non-existent. I had many of my sources tell me that such direct integration was impossible, and likely unsafe given how little is known about the way pharmaceuticals and Chinese therapies (herbal or otherwise) might interact with each other. While this disagreement is important to recognize, I still feel Frank and Stollberg offer many valid observations regarding how biomedically trained physicians understand and find meaning in Chinese medical practices.

These four researchers all suggest that multiple strategies are employed by practitioners of Chinese medicine to create their own unique understanding of Chinese medical concepts. These strategies include physical experience, use of culturally relevant metaphors, and an acceptance that both methods can exist simultaneously. In this thesis I will further support these authors' defined strategies with my own fieldwork, drawing attention to the language and decisions made by practitioners in order to validate their practice both to themselves, and to the American medical institutions that surround them. I will also attempt to relate their personal experiences navigating the borderland between Chinese and Western medicine to the American medical institutions seeking to integrate Chinese medicine into the American medical system. I will conclude this thesis with suggestions, based on practitioners' experience navigating the conceptual challenges inherent in their dual practices, which might help inform and create (more) practical and effective institutional integration.

Western Bio-Mechanistic Medicine

In order to appreciate the difficulty of understanding and practicing both Chinese and Western biomedicine, it is necessary to understand the conceptual foundations of both. First, it is important to define what I mean by the term Western biomedicine, and recognize the cultural meanings wrapped up in this general label. When I use the terms Western medicine,

biomechanistic medicine, biomedicine, or allopathic medicine, I am attempting to describe a medical philosophy and practice that incorporates an understanding of human biology, chemistry, and anatomy (grounded in visual inspection) in the identification of symptoms and diagnosis of disease. The term Western medicine is inherently ethnocentric as it creates a weighted binary relationship between “our way” of practicing medicine and “their way” (Worsley 1982:358). It not only unfairly overgeneralizes the beliefs and practices of the individuals living in two geographically defined areas (East and West), but also represents the social relationships of these individuals, such as political systems or religious beliefs, rather than purely the location of their residence.

Western medicine is also a marked term, loaded with not so subtle references to the historical power, imperialism, and economic strength of North America, Europe and other countries culturally similar to them (eg. Australia.) The geographic label no longer makes sense given how many residents of “Western” nations practice many different forms of medicine, and “non-Western” communities around the world have adopted the ideas and practices of biomedicine into their own healthcare systems, but it is useful for representing the cultural origins of its beliefs (Worsley 1982:315).

Biomedicine or biomechanistic medicine is also a problematic term, guilty of being vague and overgeneralizing a diverse field of medical interventions, but it does provide the reader with a sense of how the method is practiced, and what is fundamental (eg. biology) to its beliefs. While I prefer to use the less power-charged term “biomedicine” to describe the medical practices of the United States, it is important to recognize much of the conceptual framework for biomedicine originates in the philosophical foundations of Western scientific thought, illustrated below, and therefore I will use both interchangeably.

Western medicine, as well as Western scientific thought in general, attempts to reduce complicated phenomena into progressively smaller pieces until every aspect of the interaction can be understood in terms of its individual role. Applying this reductionist thinking to human biology has led to conceptualizing the body as a machine with isolated parts that are able to be deconstructed and rebuilt when found to be malfunctioning (Worsley 1982:321; Xie, 2011: 2; Sun et al 2013:707). In this reference frame, surgery has been likened to the “repair or replacement of parts” while pharmaceuticals are the magic bullets that can eliminate harmful disease causing agents from the body (Worsley 1982:321).

A reductionist view of the body not only motivates the comparison of anatomical structures to parts in a machine, but also conceptualizes physical human bodies as comparable enough to treat similar symptom groups (diseases) in different individuals with similar treatments. In this sense, biomedicine changes “individual distress” into “decontextualized signs and symptoms” (Lock 1993:141) that can be applied in relatively the same way to large populations. Biomedicine is heavily influenced by the Enlightenment era where a shift occurred in social and scientific thought to value ideas of rationality and equality among (white) men (McCallum 2014:506; Ross 2012:25). Applying ideas of relative human equality to the understanding of human anatomy, and reducing the body to a rational, predictable machine reflects Western medicine’s foundation in these Enlightenment ideas. The ability to break down the disease experience into pieces within a larger interaction also uncovered rational, natural laws that turned disease into another type of species, like a plant or animal, that would react in a predictable way across a population of alike beings (Foucault 1973:7).

Combining reductionist division and isolation within the body with the intention of generalizing care for all humans further influenced the development of institutional healthcare.

American medical institutions typically rely on a primary care physician to observe a patient and determine what more specialized care may be necessary. The patient is then referred to a doctor trained in the details of a certain physical region or system within the body (eg. gastro-intestinal; obstetrics and gynecology; ear, nose and throat.) The categories that doctors specialize in are facilitated by the Western ideas of anatomy, focusing on systems that are physically near each other, or visibly connected (eg. a gastro-intestinal doctor works with the stomach and intestine), rather than the connections between distant locations on the body that something like acupuncture points convey.

The most obvious separation within the body that Western medicine teaches is the historic distinction between the body and the mind. Though an idea introduced by ancient philosophers, Rene Descartes clarified it in the 17th century with his presentation of what would come to be known as Cartesian Dualism (Mehta 2011:1). Descartes suggested the mind and body are made up of two different substances that exist independently, but are still able to interact and affect each other (Ross 2012:25, Encyclopedia Britannica 2014, Mehta 2011:1). Accepting the separation of the mind and the body played an important role in the development of Western anatomical knowledge. Before Descartes suggestion, scientists were heavily influenced by the Christian belief that a physical connection between the body and the soul was necessary for a proper burial. By conceptualizing the mind and soul separately from the physical body Cartesian Dualism allowed scientists to dissect cadavers, visually studying human anatomy in more detail, without risking the displeasure of the church (Mehta 2011:1).

These early observations based on physical dissection of the body developed Western medicine's current understanding of human anatomy, and set up the precedent for equating visual evidence with physical truth. Today, human and animal biology courses emphasize a

connection between visually observing an object's structure and gaining understanding about its function. For example, in my first-year biology course I was first shown a photograph of the many folds present in the lining of a human stomach and then told this "made sense" for its function since increasing surface area of the lining enabled the body to absorb more nutrients from food entering the stomach. Advanced imaging technology has increased the scope to which humans can visually describe the living human body, increasing an understanding of the different functions they perform. Visual imaging technology also continues to be important to the legitimization of non-Western beliefs about the human body, such as infrared photos showing greater warmth at the location of an acupuncture point, applying a visible physical characteristic to a seemingly abstract and invisible idea (Sagli 2010). The connection between structure and function, and its overemphasis on visual evidence, is often unnoticed by those accustomed to Western scientific reasoning. Therefore, it is important to recognize its failure to describe and explain other conceptions of the body. For instance, "To access or feel *qi*, some argue, one must let go of scientific preoccupation with visual or linguistic proof" (Ho 2004 in Pritzker 2014:40).¹

It is not unreasonable for humans to trust vision to display an ultimate truth, but in the development of biomedicine, there does appear to be an overemphasis on the power of sight, considering it is only one of many senses with which humans witness the world and create meaning around them. While an intensely visual study of the body has allowed for incredible medical progress, it also negates or ignores a patient's "experience of health," removing the emotional or psychological aspects from the physical understanding of the disease (Mehta 2011:1). This, along with the mind-body split, generates significant weaknesses in biomedicine's

¹ Interestingly, the relationship between structure and function became useful for understanding

ability to effectively describe the connection between the human psyche and physiology (Wolpe 1985:413).

A final important feature of biomedicine is its belief that a healthy body is static and unchanging (Farquhar 1994:25). Judith Farquhar, an American anthropologist who studied Chinese medicine in China in the early 1990s, suggests that Western medicine's foundation in classical Newtonian mechanics, which describes change as the result of outside forces, results in the reduction of all events to simplified cause and effect relationships. Change that cannot be explained by such reduction, such as the final transition between life and death, is categorized under metaphysics (Farquhar 1994:25-26). This static concept of health also promotes the search for statistical normality from large collections of data, comparing each individual to this ideal, but non-existent model of a healthy body. Called the "tyranny of the normal" by some, this drive towards biological normality is criticized for leading to social stigmas, or overuse of potentially invasive medical interventions to "fix" a relatively healthy person (Ross 2012:23).

What I consider Western medicine or biomedicine has developed over centuries, motivated by a reduction of the complex human body into independent mechanical systems, and a greater understanding of these systems through visually determined anatomy. Other forms of medicine co-existed with biomedicine in the United States until the 19th century when, "the [Western] medical profession sought to extend its authority, both for economic self-interest and as part of the Enlightenment's agenda for universalizing the benefits of science," resulted in an antagonistic, binary relationship between biomedicine and all other practices (Kaptchuk & Eisenberg 2001:190; Bivins 2008:171). The development of biomedicine's dominance is also connected to the increasing collaboration between scientific research and healthcare that developed in the 19th century, as first physiology and later bacteriology played an increasing role

in the diagnosis and treatment of disease (Quirke & Gaudilliere 2008:1). Institutional collaborations between research laboratories and hospitals also increased at this time, further promoting biomedicine as the dominant understanding of the human body (Quirke & Gaudilliere 2008:1).

While biomedicine is the dominant medical practice in most of the world today, it has been influenced and altered by other medical philosophies since its origins. While different medical philosophies maintain separation through their distinct methods of describing the human body, the exchange of Western medical ideas has been observed as early as 750 AD (Worsley 1982:317-8). Additionally, the Chinese medical practice of acupuncture was introduced to Europe (France and England) by returning missionaries in the 17th century (Bivins 2007). In order to continue the discussion on the difficulty of relating Chinese medical practices to the concepts of biomedicine, it is necessary to summarize for readers certain fundamental beliefs, and the potentially unfamiliar practices, of Chinese medicine.

Chinese Medicine

Chinese Medicine is a diverse field of healing practices, including “acupuncture, acupressure, herbology, moxibustion, various exercise and dietetic regimen” (Hare 1993: 32). In my study, some practitioners also practice Gua sha, the vigorous scraping of skin at the surface of acupuncture points to stimulate their response. I also include “Clinical Tai Chi” as Chinese medicine. While Tai chi is technically a martial art based on the philosophy of Qi Gong, according to clinical Tai chi instructor Stanwood Chang it is merely a subset of Qi Gong. He teaches his course with the same intent of connecting the body and the mind through circulating

qi (energy, life force) that Qi Gong encourages. To Stan, when Tai chi movements are repeated over and over again it cultivates qi in the same way that the healing practice of Qi Gong does.

The term Traditional Chinese Medicine (TCM), introduced by Fu Lian-Zhang in 1955, is often considered to be equivalent to Chinese Medicine, and describes the form of acupuncture and herbal medicine that arrived in the US in the 1970s (Hare 1993:32, Dobos & Tao 2011:12). In fact, Traditional Chinese Medicine was developed as an attempt at standardizing and professionalizing Chinese medical practice by combining and coordinating classical Chinese medical beliefs with some Western medical knowledge (Pritzker 2014:29). Dr. Richard Hobbs, a physician and medical acupuncturist, explained how TCM's integration of Western and Chinese ideas was conceived in an attempt to offer low cost and highly effective care for China's rural population through the training of "barefoot doctors²."

Classical Chinese medicine is the foundation of Chinese medicine practiced today. According to Hobbs, recognizable Chinese medical concepts have been identified on 4000-year-old bone carvings, and in the past 2500 years over 10,000 Chinese medical texts have been written, all supporting a canon of medical knowledge. Hobbs also explained how the Chinese medical practice is based on the "confluence of three major philosophies... Daoist concepts of Yin and Yang and Qi... spiritual aspects from Buddhism, and ideas of terminology and social order from Confucianism." Throughout its long history Chinese medicine was developed by many individuals, resulting in the creation of multiple different, but similar, practices. These multiple healing traditions create a sense of plurality even in the most basic descriptions of practices, as well as the "...organization of body structure and function" (Scheid 2002 in Pritzker

² "Barefoot doctors" were trained in basic medical care, both Western and Chinese, and brought effective healthcare to China's rural population, too remote to access larger hospital systems except in emergencies.

2014:25). This incredible diversity within Chinese medical tradition leads to a similarly plural nature in how the Chinese language discusses the body, making translation into the static, fixed terms of biomedicine all that more difficult. Pritzker demonstrates this plurality by highlighting Volker Scheid's observation that, "...no single term in classical Chinese corresponds to the English "body", with its implicit meaning...of a vat or container and its categorical opposition to "mind"" (Pritzker 2014:25).

Chinese medicine believes in a vital energy force, qi, that flows through human bodies like blood or lymph, but whose channels are not visible to us (Sagli 2010). The Chinese character for qi (氣) combines the symbol for air (气) and rice (米), consistent with its conceptualization as both a material and immaterial force (Kastner 2004:6). Farquhar emphasizes the need to maintain this elusive duality between structure (material) and function (energy), explaining that if only one of these aspects is considered, then Chinese medicine "loses all coherence" (Farquhar 1994:34). Sarah³, an acupuncturist, explained that Chinese medicine believes sickness is the result of blocked qi flow. Medical interventions such as herbal remedies, acupuncture, or lifestyle choices, like exercise or diet, are all intended to encourage greater flow of qi and promote "inner harmony" to encourage long-term health (Jahnke 2002:11). The character 氣(qi) has been Romanized as both "qi" and "chi". I will use the first option, since it corresponds to the pinyin⁴ spelling, but other authors may be quoted using chi. For the purpose of this thesis, both spellings are equivalent representations of a fundamental concept of Chinese medicine that remains difficult to translate.

Chinese medicine also identifies the elements of yin and yang, "two polar opposites [which] organize and explain the ongoing processes of natural change and transformation in the

³ Pseudonym

⁴ Pinyin is the Romanization of Chinese language that is used to type Chinese characters

universe” (Kastner 2004:3). Chinese medicine attempts to maintain reasonable balance between its identified systems of the body but also remains flexible and open to change, “allow[ing] [healthy to be defined by] numerous positions on the continuum of possibilities between its extreme points” (Farquhar 1994:32). Change, fluidity and resonance are all viewed as a healthy response to a constantly changing physical, social, and emotional environment.⁵

Besides yin, yang, and qi, Chinese medicine identifies five other interacting elements: fire, earth, metal, water, and wood, which are all associated with certain anatomical structures, emotions, energetic phenomena, and spiritual beliefs (Kastner 2004:9). One acupuncturist described the interactions between these elements by drawing a five-pointed star without lifting her pen off the paper, forming lines connecting each point to another (Fig. 1). Each point of the star is labeled with a different element and a yin/yang organ pair. The yin organs are solid (like the liver), whereas the yang organs are hollow (such as the stomach.) These five solid/hollow pairs are the heart and small intestine, spleen and stomach, lung and large intestine (colon), kidney and bladder, and liver and gall bladder. Each hollow organ, on the outside of Fig. 1, nourishes or engenders—like a mother to a child—another hollow organ. The solid organs, on the inside in Fig. 1, regulate, restrain, or keep in check, another solid organ (Kastner 2004:9). For example, the stomach nourishes the large intestine, and spleen regulates the kidneys.

⁵ To elaborate, in Chinese medicine, “...fixity and stasis occur only as a result of concerted action, and therefore demand explanation; motion and change are a given and seldom need to be explained...” (Farquhar 1994:25). This is in almost direct contradiction with Western medicine’s belief in a static ideal of “normal” health.

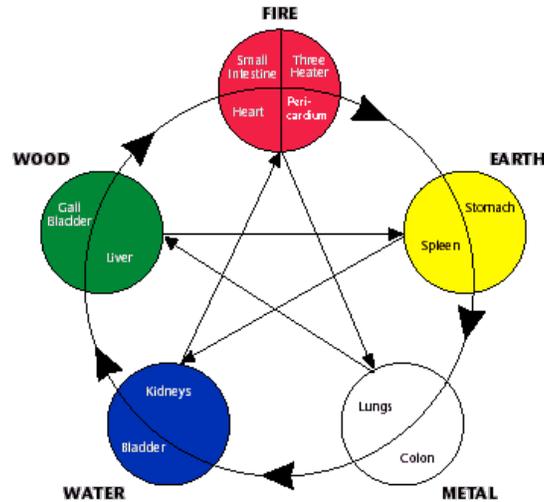


Figure 1. A diagram illustrating the five-pointed star representation of the five elements, specifically highlighting the nourishing (outside arrows) and regulatory relationship between the five elements and their corresponding yin/yang organ pairs. (<http://www.healingtaousa.com/cgi-bin/articles.pl?rm=mode2&articleid=163>)

Each of these points also corresponds to sensations, such as heat or damp, and emotions such as anger, fear, or happiness, which are all considered when making a Chinese medical diagnosis (DUJS 2012). Sarah, the acupuncturist, describes Chinese medicine’s approach to anatomy, citing its emphasis on function over structure:

It is important to recognize that Chinese medicine does not consider an organ a physical structure, but rather a set of functions. This understanding explains functions, but not the structure. Autopsies were incredibly taboo in Chinese culture and so the ancient Chinese developed an understanding of the body based on the functions you can see in a living person, such as symptoms, rather than the organization of a dead body.

Acknowledging Chinese medicine’s tradition of understanding organs based on their function, rather than their structure, helped differentiate Chinese medical beliefs from the Western, visually identified, anatomical organs when Western medicine was first introduced and incorporated into Chinese medical practices beginning in the 19th century (Pritzker 2014:52). In her description of Chinese medicine’s emphasis on function, the acupuncturist has also highlighted how Chinese understanding of the body developed differently from Western medicine. Abbé Jean-Baptise Grosier (1743-1823), a source in Bivins’ historical study of

alternative medicine, observed that Chinese doctors do not base their practice on dissection of corpses, but instead, “...have long studied living nature with profound attention, and with advantage” (Bivins 2007:111). The study of “living nature” helps Chinese medicine understand the natural course of change, as well as humans’ interaction with their environment in incredible detail, something that is very difficult for biomedicine to describe in any equivalent way.

Another aspect of Chinese medical theory that is difficult for individuals familiar with biomedicine to understand, given how they are taught to equate visual proof with anatomical truth, is the invisible system of channels that connect acupuncture points to each other and their location of impact. Sagli describes these, “circulation tracts (*jing*) and their connections (*luo*) [as] distributed in systematic constellations on the trunk, arms and legs of the human body” (Sagli 2010: 317), but to date there are no imaging tools that can map this system in its entirety.

The Chinese diagnostic procedure is also very unfamiliar to those accustomed to a Western diagnosis which tends to focus on visually observed or described symptoms. Chinese diagnostic methods emphasize a clinician’s ability to combine four broad and subjective examinations of *sizhen*—sight (especially observations of the tongue), listening/smelling, asking, and pulse—into common symptoms and diagnoses (Farquhar 1994:68.) Farquhar observed five different diagnostic sub-methods in Chinese medical practice, each focusing on specific characteristics within the broad categories of *sizhen* (Farquhar 1994:70). In all methods, the analyses “provide a systematic pattern of abstracted relationships that can be mapped over symptoms to develop a coherent (if partial) picture of the illness process” (Farquhar 1994:76). Even though the categories and descriptions of symptoms may be unfamiliar and appear highly subjective, this diagnosis strategy results in an objective process, using these categories to logically approach a patient’s illness.

Of these four diagnostic tools, pulse diagnosis is both the most revealing and most difficult to conduct. Dr. Robert Heffron M.D., a Clinical Assistant Professor at Brown University's medical school as well as a Chinese medicine doctor, described the complex process of pulse diagnosis in an email to me:

The pulse on the wrist requires the finest and most advanced development of touch in diagnosis. There are a variety of pulse systems that are used. I use and teach one that is centuries old, and we palpate 18 'principal' positions and approx. 22 'complementary' positions on the radial artery at the wrist. There are many 'qualities' felt at these positions and we teach in the neighborhood of 50 distinct felt sensations (qualities) that need to be discerned to be precise about a diagnosis. I think the pulse is the most powerful tool in the diagnostic arsenal based on touch, and it is clearly the most difficult to master.

Dr. Heffron continued his explanation by noting how such a diagnosis can "take up to 45 minutes" and requires incredible patience on the part of the practitioner. The extended time allows patients and Chinese doctors to develop a very different relationship than one might be used to in the fast-paced Western model of healthcare.

Prolonged gentle touch, in which the practitioner is feeling (or, I think of it as listening) to the patient very deeply, discerning their emotional as well as physical feelings, creates a healing relationship that is quite a bit different from the relationship that an allopathic doctor develops. Allopathic doctors touch briefly with only physical issues in mind. They do an exam with the idea that the body is akin to a mechanical system and they are looking for the abnormal part. Chinese doctors recognize that we are a total body mind system and that our emotional, spiritual and physical beings are one and influence each other. When I examine a patient with touch I am interested in the whole person, body mind and spirit. A Chinese diagnosis takes all of this into account.

Here, Dr. Heffron has discussed how diagnosis is one of many fundamental differences between Chinese and Western medical practices.

Chinese medicine not only utilizes different diagnostic tools, it also approaches treatment and prevention very differently than Western medicine. Brian Inglis suggests that non-Western doctors believe sickness is a product of how a patient lives their life, and what they are more prone to given their environment (Inglis 1975 in Worsley 1982:316), as opposed to the biomedical view that pharmaceutical or surgical intervention can fix any abnormality as long as

one locates the root cause. These different approaches to treatment also change each tradition's view of prevention.

Dr. Heffron illustrated these different approaches to prevention using the following metaphor. He explained, "The problem with the Western approach to prevention is that we don't really change much. We treat disease after it starts. The horse has already left the barn, and we are lucky if it isn't already too far away yet to catch." Extending this image, true prevention would involve building a fence so that the horse, or the illness, never ran away or the disease never becomes untreatable. Dr. Heffron continues, "The Chinese approach has ways to catch disease way before it appears as symptoms, such as pulse diagnosis." Chinese medicine also views healthcare as a constant effort to maintain balance, rather than a fix when something goes wrong. This constant awareness and maintenance of the body through a healthy lifestyle also reduces the need for extreme, often expensive, medical intervention.

In the following sections I will continue to highlight more of the conceptual and practical differences between Chinese and Western medicine that challenge those who wish to practice both. The challenge of integrating fundamentally different approaches to the human body exists at both the personal and institutional level for these dual practitioners.

The Frontier Between Chinese and Western Medicine as "Borderland"

This thesis explores the aspects of both Chinese medicine and biomedicine that make it so difficult to explain one with the ideas and language of the other. The seeming disconnect between the two medical practices creates a conceptual boundary. Wedged between these two medical practices, there exists a borderland; it is a place where knowledge of both can exist and interact. American practitioners of Chinese medicine inhabit this borderland, continually

reconciling their dual identity by developing strategies to effectively navigate in between the two frameworks. Borderlands, as an anthropological theory, originated in the physical and mental space between the United States and Mexico, where authors such as Gloria Anzaldúa analyzed the way in which belonging to Mexican, American and Mexican-Indian culture resulted in both traumatic and powerful experiences. The concept of borderlands has expanded in a deterritorialized world to include boundaries between all cultures, communities and their subsequent impact on identity (Alvarez, 1995:449). The concept of borderlands is, "...alert to the shifting of behavior and identity and the reconfiguration of social patterns at the dynamic interstices of cultural practices" (Alvarez 1995:462).

While studying borderlands, some researchers focus on the similarities between the cultures on both sides, highlighting the, "adaptive patterns framed in functional formats of social equilibrium" (Alvarez 1995:462). Others observe the differences that create conflict and challenge integration, often uncovering an antagonistic relationship between the two sides (Alvarez 1995:462; Anzaldúa 2007:100).

When I began this research, I intended to study the methods of understanding or "adaptive patterns" employed by dual practitioners that helped them find meaning across the divide of two medical philosophies. By doing this I also uncovered particularly revealing points of "paradox and contradiction" between Chinese and Western medicine which shape the landscape of this borderland (Alvarez 1995:462). For example, one such contradiction is Chinese and Western medicine's fundamentally different reactions to change within the body, one being positive and the other negative. To Alvarez, studying borderlands is about "understanding differences, disequilibria, and the conflicting social patterns of human behavior on both the local and global scale" (Alvarez 1995:462). Keeping this in mind, this thesis will not

only identify the “adaptive patterns” developed by US practitioners of Chinese medicine, but will also outline major conceptual conflicts between Chinese medicine and Western biomedicine, in an attempt to illustrate the various points of “paradox and contradiction” that American practitioners of Chinese medicine must wrestle with as they practice.

When conducting border studies it is important to include observation of, “race, patriarchy, and equality,” given that the border almost always separates groups with unequal power and privilege (Alvarez 1995:454). It is also important to observe when *la mestiza* takes a “counterstance [which] refutes the dominant culture’s views and beliefs...because the counterstance stems from a problem with authority—outer as well as inner...” (Anzaldúa 2007:100). Anzaldúa concludes that the prolonged use of such a “counterstance” is impractical, encouraging *la mestiza* to actively reconcile her situation, through greater engagement or disengagement with the opposite side (Anzaldúa 2007:100-101). At some point during their practice all the health care providers I spoke to experienced questions of authority and legitimacy. This occurred while learning the practice, doubting their ability to understand and effectively treat using Chinese medicine. It also occurs when medical institutions, such as insurance companies or hospital administrations, doubt Chinese medicine’s efficacy, safety, and legitimacy and consequently question the providers’ authority. Practitioners expressed frustration regarding the restrictions placed on them by American medical institutions, but also recognized the benefits of Western medicine, and did not suggest that Chinese medicine should fight to overturn the dominant system. As illustrated in Chapters 2 and 3, Dr. Arya Nielsen, PhD is an example of *la mestiza* who holds a counterstance against American medical institutions’ marginalizing language. Her arguments only act to gain more respect though, making life on this

borderland more manageable, and do not convey a desire to overtake the dominance of Western medicine.

Given that borderland studies originated in a space of intense oppression, is it still useful to observe the relatively peaceful divide between Chinese and Western medicine through this lens? Are borderland studies still relevant to areas without direct physical violence? When considering these questions, it is important to recognize that this border was not, in fact, always as peaceful as it is today.

When acupuncture was introduced to the United States in the 1970s, and biomedical frameworks could not explain its results, many Western doctors and institutions discredited its efficacy because it threatened both the authority of biomedical explanations of the body, and of the doctors themselves (Wolpe 1985:413,420). Today, a more “consumer-driven healthcare environment” has discouraged such antagonism, replacing it with an acceptance, even perhaps a preference, for a system of medical pluralism that offers multiple approaches to health care in order to better serve the patient (Kaptchuk & Eisenberg, 2001:189, 193). Institutional barriers, such as limited insurance coverage for acupuncture treatments, still inhibit the availability of treatment, but as will be discussed in my final chapter, many of the practitioners I spoke with felt that the American medical system is becoming a more inclusive environment. While the borderland between Chinese and Western medical practices does not exhibit the physical violence seen along the U.S.-Mexican border, having to constantly defend an alternative medical practice in the face of Western medicine’s dominance puts a similar tension on the dual practitioners. It constantly questions their own identities, and motivates problems of authority, as illustrated by fighters such as Dr. Arya Nielsen. Therefore, theories developed along more violent borders are still relevant to the divide between Western and Chinese medicine.

While discussing oppression and violence along borderlands, it is important to briefly discuss the difference between the marginalization of Chinese medicine in the US and issues of marginalization of China or Chinese culture more broadly. While I observed acupuncturists' offices decorated with Buddha statues or Chinese calligraphy, I do not consider this a negative reflection, or "Orientalizing" of the tradition. Edward Said (1979) argues that the presentation of Oriental locations (Asia and the Middle East) maintains and perpetuates a derogatory stereotype that has little or no connection to the original location; indeed, Said argues that such representations actually facilitate the continued political and economic dominance of the West. In my limited experience with American practitioners of Chinese medicine, and even more limited experience with patients, I observed a high level of respect for Chinese medical traditions as both a historically grounded and effective treatment option. While Asian art on the walls of acupuncture practices could be interpreted as an attempt to make Chinese medicine more exotic, I suggest it may act as a way for practitioners to express their connection to the all-encompassing nature of Chinese philosophy. Chinese philosophy does not separate medicine from other aspects of art and literature, as Western medicine has tended to do. While studying American practitioners' connection to Chinese medical traditions and images holds a wealth of information on the current relationships that exist between Chinese medicine practiced around the world, this thesis will not focus on such relationships. Rather, I will be discussing the various experiences of Chinese medical practitioners in the United States, and the marginalization they feel from dominant American medical institutions.

Applying theories of "borderlands" to the study of Chinese and Western medicine is useful for a few reasons. First, research into the concepts, practices, and institutional limits that maintain the distinct physical and conceptual separation between the medical practices reveals

important “paradox and contradiction” among human knowledge about the body. Studying this divide illustrates interesting differences in the way humans think about the human body, and why these differences continue to persevere, remaining unexplainable even with growing medical capabilities. Second, borderland studies encourage observation and analysis of the practitioners, *la mestiza*, who exhibit “adaptive patterns” to strategically combat the “psychic restlessness” of their dual identity (Alvarez 1995:462; Anzaldúa 2007:100). Studying borderlands also provides a framework to challenge hegemonic divisions of the world. Those inhabiting borders defy political, social, and economic categories, such as nation-states, as well as conceptual divisions, such as the way Western and Chinese medicine diagnoses and treats a patient. Studying those on the border offers a lens to examine aspects of the dominant medical system that may be flawed, and encourages greater communication, understanding, and integration between the two sides.

The Integration of Non-Western Medical Practices in America

In order to understand the current landscape of any borderland, Chinese medical practices in the United States included, a discussion of its introduction and history is necessary (Alvarez 1994:462; Pritzker 2012:360). A brief summary of how multiple forms of non-Western medicine in the United States have historically been categorized and integrated in the United States will begin here, to be continued in Chapter 2 with a discussion of how they are currently integrated. The existence of multiple types of healers and healing practices in the United States is not a new phenomenon, given its long history of non-biomedical traditions such as midwives, botanical healers, and ethnic healers (Kaptchuk & Eisenberg 2001). However, as previously discussed, during the 19th and 20th century American biomedicine became the dominant system

of care, and maintained this dominance through an antagonistic relationship with non-Western healers (Kaptchuk & Eisenberg 2001).

Chinese medicine was first brought to the United States by Chinese immigrants in the mid-nineteenth century, but was more fully introduced into American popular culture in the 1970s through an increasing number of news reports about surgeries performed in China using only acupuncture for anesthesia (Worsley 1982:316; Pritzker 2014:29-30). The public greeted this information with excitement and wonder, but it was met with skepticism and hostility within the medical community, where some felt their cultural dominance was being taken away as biomedicine failed to explain the body's evident response to acupuncture (Wolpe 1985:411,413). Chinese medicine's introduction also corresponded with a growing global acknowledgment regarding the limits of Western medicine.

In 1976, the World Health Assembly recognized that the high cost of Western medicine limited its ability to provide high-quality healthcare to much of the world, prompting an international discussion about what types of practices should be included in a broader definition of what constitutes quality healthcare. This new awareness formally recognized the value of other types of medicine, and encouraged the development of medically plural systems around the world (Worsley 1982:323). At this time, the World Health Assembly also encouraged national healthcare systems to include traditional medicines into primary care services, significantly modeled on the Chinese example of combining acupuncture and herbal medicine with Western medicine (Worsley 1982:340).

In response to the growing awareness about other models of the body and successful non-Western medical treatments, academic researchers and consumers alike began questioning the previously undisputed facts biomedicine taught about the natural world. This resulted in,

“decentering the physical body of the basic sciences... [questioning] the production of natural facts...[and] radicalized and relativized our perspective on several recalcitrant dichotomies, in particular, nature/culture, self/other, mind/body...” (Lock 1993:134). Some members of the public, confused by medical practices that could not be explained in familiar biomedical terms, applied a more reflexive gaze on their previously held beliefs about the scientific authority of Western medicine, and actively sought non-Western medical treatment, such as acupuncture, to defy the authority of Western medicine (Kaptchuk & Eisenberg 2001). Today, this shift towards a more diverse healthcare field has continued, motivated by a more consumer driven healthcare environment, a dissatisfaction with the impersonal approach biomedicine often takes, and a growing recognition that biomedicine has its limits (Kaptchuk & Eisenberg 2001:189; Hare 1993:37, Dobos & Tao 2011:17).

The shift to a more plural definition of medical treatment has produced the field of integrative medicine, or Western integrative medicine. Integrative medicine, “combines methods from the complete spectrum of medical approaches...on a scientific basis” (Dobos & Tao 2011:12) and has been successful at incorporating Chinese medicine into mainstream medical care. Integrative medicine encourages greater participation from patients, such as in making dietary changes, and follows the rationale that choosing a correct therapy should include, “1) the level of evidence, 2) the cost of therapy, and 3) the potential side effects” (Dobos & Tao 2011:12).

Observing China’s success incorporating Western medical practices into the already established practices of Chinese medicine illustrates one example of integrative medicine outside of the United States. As Worsley explains, Chinese primary care “... is thoroughly pluralist, since Western medicine, in all its forms, from hospital-based surgery to pharmaceuticals, is fully

utilized. The integration of the two systems, however, is entirely pragmatic. Rather than being integrated conceptually, they coexist, as it were, side-by-side” (Worsley 1982:340). While China illustrates the possibility of creating a medical system that utilizes both practices, it is important to recognize the difficulty, if not impossibility of combining the two conceptually into one practice. In the United States, the introduction of the field of integrative medicine and the development of the National Center for Complementary and Alternative Medicine in 1992, a research entity of the National Institutes of Health (NIH), both developed in response to a consumer driven push for greater medical pluralism (Kaptchuk & Eisenberg 2001:189; Baer, 2005). They represent the most widely recognized efforts to incorporate non-Western medicine into the American medical system.

A motivating factor driving the continued integration of non-Western practices into the American medical system, at least practically, is the recognition that neither can absorb the other entirely, but each has their own unique strengths that should be utilized. We know that Western medicine has contributed to the successful eradication or control of deadly diseases, such as reducing malaria and tuberculosis, but new strains of infectious agents that are resistant to current pharmaceuticals challenge this success (Worsley 1982:322). Western medicine’s limits have also been revealed by its inability to treat social causes of bad health, such as malnutrition or the recent increase in both “disease[s] of affluence” and mental illness (Worsley 1982:322). Brian Inglis summarizes a somewhat misplaced faith in Western medicine to treat all forms of disease and poor health, as follows.

The belief that an organic cause for all forms of illness would eventually be found and the appropriate remedy would follow has dominated both specialist and lay thought for a century. Coupled with advances in hygiene and nutrition, it produced results striking enough to appear to justify faith in it. But ...everyday disorders ranging from colds and flu through headaches and backaches, bronchitis and asthma, to coronaries and cancer have resisted this approach. The discovery of cause and cure is always “just around the corner, but the corner is never quite

reached.” [Inglis, B. 1975 in Worsley 1982:316]

Western medicine’s tireless expectation that a targeted cure exists for every disease may not be realistic, but it has significantly increased the life expectancy of human beings over the past hundred years in a way Chinese medicine could not. A significant limitation of Chinese medicine is its inability to provide very effective emergency care. For instance, it would not be useful to a patient experiencing a heart attack or suffering from a serious wound. Chinese medicine could attempt to prevent either of these situations from occurring through the maintenance of good health, but neither I, nor most practitioners of Chinese medicine, will argue against the effectiveness of Western medical resources in these situations. Chinese medicine’s strength exists in the, “...treatment and prevention of chronic illnesses since the process of improvement is very slow and steady” (DUJS 2012), while weaknesses include Chinese medicine’s limited resources for emergency care.

The patient-driven growth of Chinese medicine in the United States has motivated the creation of different institutions and frameworks attempting to incorporate, regulate, and study its effectiveness, despite American medical institutions’ initial skepticism. Examples of these institutions include the integrative medicine departments established within hospitals, the National Center for Complementary and Alternative Medicine, and medical acupuncture courses specifically designed for physicians. These institutions are challenged by many of the same conceptual differences between the two practices discussed earlier, struggling to provide legitimacy to practices they cannot understand or measure using biomedical methods.

How Do We Know What to Believe? Issues Establishing Legitimization and Authority in Medical Practice

If Chinese medical concepts cannot be fully described using biomedical language, or vice versa, how can practitioners and institutions of either be confident in their practice? Pritzker and Sagli both observe the discourse and practices surrounding the development of a practitioner's confidence. They suggest that physical, visual, and experiential evidence are all incorporated into a student's final understanding and acceptance of unfamiliar Chinese medical practices and beliefs.

Once an individual accustomed to biomedical concepts of the body is able to accept the existence of qi and its meridians as an invisible matrix of undefined energy, the realization may still raise uncomfortable questions regarding their previously held beliefs concerning the reality, authority and legitimacy of biomedicine. Questioning how scientific facts come to be accepted as such, and the dominance of biomedical beliefs given the existence of other effective, yet "unexplainable," treatments threatens the authority of biomedical physicians and their medical systems. Historically, the use of alternative medical practices corresponded with an increase in patient displeasure towards the "unquestioned authority of the doctor" in the dominant practice (Worsley 1982:316). If students of Chinese medicine experience a similar displeasure towards Western medical practices and institutions while learning Chinese medicine, it could inspire questions challenging their own previously held ideas about healthcare. Raising questions about what constitutes true concepts of the body can quickly transition into questions of authority, power, and who gets to determine which organization of the body is correct. Studying how American practitioners of Chinese medicine, *las mestizas*, transition from inhabiting their borderland in a state of uncomfortable confusion to inhabiting it with a more confident acceptance of their multiple identities—defined by their two beliefs about the body—can provide

and inspire a more reflexive and pluralistic view of healthcare in all locations, not just on this border.

Throughout this research, as I became more familiar with Chinese medicine, I found myself questioning Western medical practices as well. As a visitor to this borderland I have experienced some of the unique challenges presented to *la mestiza*, which encourage my own questions about where individual beliefs about the body originate and how they evolve over time. These beliefs are culturally specific, influenced by the ideas of an individual's family, social networks, and institutions. The challenge of relating Chinese medicine to biomedicine illustrates the importance of recognizing culturally specific characteristics of the body, health, and healing. Medical Anthropology, the scholarly tradition in which this thesis falls, helps to understand these various medical practices through thoughtful cross-cultural comparison, illuminating the cultural importance and diversity of medicine around the world (Kleinman 1988; Lock 1993:142). In this way, medicine, health, illness, and healing become another dimension of social life through which people create meaning and understand their lives (Ross 2012:12-13).

I began this research with the belief that there does exist a definitive connection between Chinese and biomedicine, because I believed that biomedicine represented the only real conceptualization of the body. Talking to different practitioners who had experienced a similar challenge helped release this ethnocentric conviction, encouraging me to accept efficacy through examples of positive results, such as witnessing acupuncture relieve a patient's pain, rather than through evidence of structure. My conversations with practitioners reveal that to practice Chinese medicine one does not have to know every detail of what is happening to the patients' physical body. What matters is how the patient feels, and whether or not they are improving with the provided treatment. Understanding how it works is no longer relevant. Does Western

medicine overemphasize understanding every process involved with a disease in order to treat it? What might biomedicine accomplish if it did not rely so heavily on visual evidence of structure to determine an outcome?

Studying the incorporation of Chinese medicine into US medical systems disrupted the blind confidence I had in Western medicine, and allowed me to consider what other options exist. By studying a sub-population of American medical providers who have chosen to educate themselves outside the dominant medical field, I am exposing a more relativistic approach towards healthcare, and encouraging further questioning concerning the assumed authority of Western medicine. What makes Western biomedicine so powerful in the US? Why are older, “original medicines” marginalized by newer practices? If there is no good method of treatment for something in Western medicine, why are the non-biomedical options still considered alternative?

These questions are impossible to answer from such a small study. In fact, they may remain unanswered even if unlimited time and resources could be applied to them. In this study I will not attempt to discern what is true in our world, or which treatment method is more apt for various diseases. I will instead heed Judith Farquhar’s observation that, “...what has interested anthropologists is that cosmologies, ontologies, whole worlds of practice and discourse, have varied so much” (Farquhar 1994:27). Observing two medical philosophies, and the tensions their attempted integration creates, contributes to the overall goal of studying the incredible diversity of ideas, approaches, and beliefs that humans have created in order to find meaning in our lives.

Methods

My interest in Chinese medicine began during the fall of 2013 while studying in Kunming, China. There I conducted a month-long research project about how Traditional Chinese Medicine practices were being incorporated into the antibiotic treatment of tuberculosis. In the summer of 2014 I continued exploring incorporation of Chinese medicine into Western medical practices by speaking with physicians and osteopaths studying Chinese medicine in Shanghai. These conversations introduced me to the idea that those trained in biomedicine develop various adaptive strategies to understand Chinese medical beliefs, especially when these beliefs contradict previously held concepts about the body or healing. In framing my thesis project on this topic back in the United States, I cast a wide net to locate physicians or biomedical researchers who also practiced Chinese medicine. It proved more difficult than originally anticipated to find such dual practitioners, so my category expanded to include American acupuncturists and Tai chi instructors. I believe that all of the non-physician practitioners who I spoke with were sufficiently educated in Western biomedical beliefs about the body to still experience the challenge of understanding one with the other.

This thesis is based on conversations with three medical doctors, two scientific researchers, two licensed acupuncturists, and one Tai chi instructor who all studied and practice Chinese medicine. A ninth interview was conducted with a former acupuncture student who chose not to complete her final semester of school and does not currently practice. Of the three medical doctors, two (Dr. Erica Lovett and Dr. Richard Hobbs) completed a medical acupuncture course remotely with Dr. Steven Aung.⁶ This course lasted approximately a year and included a

⁶ Dr. Steven Aung is a family medicine physician, medical professor, and a 6th generation Chinese medicine doctor. He designed a medical acupuncture program for medical doctors and

few days of clinical practice each month. The other physician (Dr. Robert Heffron), studied independently with a classical Chinese medical master. The two researchers (Dr. Arya Nielsen and Dr. Smith⁷) and two acupuncturists attended a three-year masters program at a U.S. school for East Asian medicine, such as the New England School of Acupuncture.

Unlike Sagli (2001), I did not ask these practitioners to complete a formal survey and I chose to conduct less formal interviews than Frank and Stollberg (2004) did for their study by asking similar, but not identical questions in each interview. In my conversations with practitioners, both in person and over the phone, I attempted to uncover their personal beliefs about their practice, where they felt integration was possible, and how they reconciled the fundamental differences between the two. Any recording of a conversation was done with explicit oral consent by the individual being interviewed, and real names or identifying information is only being shared in this thesis if I received written consent to do so.

My research also included observations in a community acupuncture clinic in Lewiston, Maine,⁸ and at a Boston Tai chi class specifically designed for individuals diagnosed with Parkinson's Disease. Both Sagli (2010) and Pritzker (2010; 2012; 2014) conducted their fieldwork in acupuncture schools, going to the source of knowledge transmission and creation in order to explore methods of understanding by students. I never considered observing a class until reading the work of Sagli and Pritzker. I was always more interested in the way individuals develop an understanding of Chinese medicine after they begin practicing. Many of these

dentists affiliated with the University of Alberta in Canada. More information available at www.aung.com.

⁷ Pseudonym

⁸ Community acupuncture treats multiple patients at once in a shared space, allowing an acupuncturist to reduce the cost for each visitor. By reducing the cost of each session (at this clinic it is a sliding scale of \$20-\$40/visit), it makes the repeated visits and lack of insurance coverage less of a financial burden on the patient. This format is similar to how acupuncture is practiced in China, and was developed in the United States by Lisa Rohleder.

practitioners are also educators, and discussed the development of their teaching style, but this was primarily used to illustrate their own experience of reaching an understanding and how they conceptualized their individual practice. While research in schools is beneficial to the topic of understanding the transfer of unfamiliar knowledge, I believe speaking to practitioners who have been out of school and treating patients for at least a few years, if not many, allowed me to observe more mature and fully formed strategies of reconciliation, as well as gain a better understanding of practitioners' experience and interactions with American medical institutions. For example, one acupuncturist told me our conversation helped her realize how much her understanding and knowledge of Chinese medicine had been internalized in the seven years since she had graduated from acupuncture school. Our conversation enabled both of us to recognize her slow transition from precisely measuring out the location of each point to a more instinctive ability to view the body in the Chinese medical frame.

Pritzker has approached the question of how individuals understand competing concepts of the physical human body in Western and Chinese medicine by applying theories of translation and linguistics to her observations. She has proposed that translation is not a static action that results in two equivalent terms. Rather, it is a dynamic action that requires physical experiences and culturally relevant examples to accurately transmit knowledge. Frank and Stollberg approach a similar question through analyzing the practical organization of a dual practice in Germany. I believe my analysis, focusing on the creation and navigation of the borderland between these two medical traditions, falls somewhere between these two methods. By analyzing both the language and structural organization involved in both institutional and personal integration of Chinese medical beliefs, I am able to recognize trends among the

strategies of adaptation and integration employed by those who practice Chinese medicine in a biomedically dominated landscape.

In my second chapter, I explore different aspects involved in creating and shaping the borderland between Chinese and Western medicine including education routes available to students of Chinese medicine, and the different models available for offering Chinese medical services to the American public. This chapter highlights how Chinese medical practices are often legitimized through the adoption of biomedical language regarding healthcare. It also discusses practitioners' personal experiences of marginalization, and their continued efforts towards legitimization within American healthcare systems. It is important to illustrate the institutional landscape that is both actively creating, and reactively shaped by, the interaction and reconciliation of both sides of this border, providing readers with context about where these practitioners are acting out their roles, and balancing their multiple identities (Pritzker 2014:21).

The struggle for greater acceptance and legitimization of Chinese medicine often rests on the difficulty to effectively communicate its structures to those accustomed to biomedical language. Chapter three explores strategies developed by practitioners and institutions to share Chinese medicine's benefits to American audiences with greater clarity and success. Chapter three also offers observations on the personal choices surrounding language, space, ideas, and experiences that helped these nine practitioners understand and feel confident about their practice. I have identified three strategies employed by American practitioners for the understanding of Chinese medicine. These strategies include 1) separating, at least symbolically, each medical view to facilitate easier transitions between the two, 2) recognizing that two very different diagnostic realities may exist at once, and 3) utilizing physical experiences, guided by touch, visualizations, and metaphors, in order to motivate a more personal experience with the

abstract and unfamiliar concepts of Chinese medicine. By examining this small sample's discursive and non-discursive practices, I will weave their personal choices back into the institutions in which they occur, concluding with suggestions as to how these strategies could better inform more effective future institutional integration in the United States.

Understanding a different approach to the human body is difficult, and accepting it as another, simultaneous, reality challenges individuals in both uncomfortable and unexpected ways. Worsley suggests that while Western medical beliefs and practices, such as germ theory, fill a gap in other medical systems' expectations, "It would be foolish to think that this gap can be easily bridged" (Worsely 1982:345). While it is tempting to search for concrete connections between two such effective medical practices in order to create one reality, such direct connection may be impractical. My research has involved constant reflexivity, inspiring me to recognize the relativity of medical truths. I encourage readers to keep these ideas in mind as well. To those not brought up in the culture of biomedicine, a belief in microscopic disease causing agents could seem just as uncomfortable as organizing the body into five elements, or placing an acupuncture needle in the foot to treat the stomach.

Chapter 2:

The Institutional Landscape of the Border Between Chinese Medicine and Biomedicine

In order to understand the current landscape of Chinese medical care in the United States, it is important to examine different paths to integration, and what options for treatment are available to American patients. In this chapter I provide information regarding the current models of education for those who wish to practice Chinese medicine, the different models of integration regarding treatment facilities, and other areas, such as herbal pharmacy suppliers, who are involved in the incorporation of Chinese medical treatment into U.S. healthcare. Acknowledging and understanding the challenges, frustrations, and holes within the current models of integration guided my own investigation into the methods and solutions being developed by individuals. I believe studying these aspects of integration will help readers understand the social and physical environment within which these dual practitioners work, as well as the type of patients they interact with. This section will also illustrate how institutions such as schools and herbal suppliers communicate the legitimacy of Chinese medicine through the attempted use of biomedical language, adapting their descriptions and explanations to match the American medical system's expectations of what science and healthcare mean. Other institutions, such as the integrative clinic, intentionally separate themselves from these expectations and utilize a more varied vocabulary to describe Chinese medicine.

Before examining the institutional integration of Chinese medicine in the U.S., through education, facilities, and suppliers, it will be helpful to share some of the fundamental philosophical differences that frequently complicate biomedicine's understanding of Chinese medical beliefs, as discussed by two figures of authority in their respective fields. This dialogue

demonstrates the language used to vocalize Chinese medical concepts that do not make sense in biomedicine, and how they are currently explained and understood by the American public. Bill Moyers, a journalist and network TV news commentator, published a collection of interviews he conducted, titled *Healing and the Mind*, which features a revealing conversation with Dr. David Eisenberg, a medical doctor who has spent years studying Chinese medicine in both China and the United States. Eisenberg first visited the People's Republic of China in 1979 as the first American medical exchange student in China (Moyers 1993:305). He has since gone on to develop an academic exchange program with Chinese medical schools, teach medicine, and develop the field of nonconventional medical practices in the United States (The Forum 2015). Moyers asks Eisenberg to explain some of the common challenges people familiar with Western medicine face when trying to understand Chinese medicine. The first challenge Moyers questions is the seeming lack of testing and identification of “active ingredients” among Chinese herbs in order to create pharmaceutical equivalents to Chinese herbal therapy. As Eisenberg explains in the interview,

Moyers: “Have these prescriptions been analyzed?...Do we know what’s really in them?”

Eisenberg: “The only one that has been analyzed to any extent is ginseng. That’s not surprising, because when you think about it, a single herb, like ginseng, may have fifty or a hundred different chemicals in it. Sorting out which ingredient is doing what is not so simple”

Moyers: “So we know what herbs are in these prescriptions, but we don’t know the active ingredients that make them work?”

Eisenberg: “We don’t even know all the ingredients in each herb or how they interact when you boil twelve of them together in water.”

Moyers: “We know that some plants in their natural condition contain digitalis—which we use for heart conditions. So there is chemistry involved in herbal therapy.”

Eisenberg: “Right, but the Chinese weren’t interested in “chemistry” as we know it. They didn’t have organic chemists to analyze the active ingredients. They had people who observed whether whole herbs helped with certain problems. These herbs are prescribed based on a notion that the body is basically a system filled with energy—‘chi.’ When a traditional Chinese doctor prescribes a specific herb, he’s not attempting to correct a chemical abnormality, he’s trying to restore the harmonious flow of chi. Each herb is given to increase chi when there’s not enough, or to decrease it when there’s too much.” [Moyers 1993:260]

This conversation, very similar to one I had with a Chinese-born-American pharmacist while I was working in Shanghai last summer, further illustrates Western medicine's preference for reductionist thinking, and Chinese medicine's relative aversion to such ideas. Chinese medicine, as it is portrayed here, appears to have little interest in determining how things work or why, preferring instead to employ the thousands of years of observation and development in order to validate the continued use of Chinese medical treatments. Generations of positive experiences from patients have provided enough evidence to instill faith and trust in the treatments. Eisenberg acknowledges that currently these interactions are too complicated to isolate into individual chemical reactions, even if it was desired. This concession pairs well with the Chinese philosophy that understanding the isolated piece means nothing without a simultaneous understanding of the entire system, and the many interactions that occur within it, as a whole. Chinese medical providers prefer to view the results of the entire interaction, and adjust slowly, rather than understand every individual aspect of the body's interaction with the treatment.

This system's approach to healthcare goes against the popular "magic bullet" model of Western medicine, which proposes that every discomfort has a root cause and can be cured through targeted therapy. Eisenberg, in his explanation, is trying to move Moyers and his readers away from the dangerous trap of explaining one type of medicine through the lens, language, and assumptions of the other. He illustrates the success Chinese medicine has had developing through living observation, without organic chemists, in order to encourage readers to release their reductionist assumptions about healthcare.

Eisenberg also further illustrates the important concept that Chinese medicine does not approach disease or discomfort as a static thing that needs to be fixed, but rather attempts to

restore the body to a fluid space of equilibrium. Farquhar suggests that, “The difference between a world of fixed objects and a world of transforming effects accounts for many of the difficulties encountered by moderns who attempt to understand Chinese medicine” (Farquhar 1994:26). Such fluidity and change within the human body can make those used to Western medicine’s definitive, consistent, predictable, and mechanical image of the body uncomfortable.

Another common question about Chinese medicine is how much a patient has to simply believe in the treatment for it to work. I find it interesting that I, and I imagine other Americans accustomed to Western medicine, rarely question Western medicine’s impact in the same way, assuming that all patients of biomedicine take their medications with full faith in its power to heal, when in fact studies have shown that even the efficacy of medications such as opiates are highly dependent on the placebo effect.⁹ Eisenberg responds to Moyers’ query about placebos by extending his earlier claims about how one understands the efficacy of Chinese medicine through observing its positive impact, suggesting people gain confidence in its abilities by seeing it help family and friends feel better:

Moyers: “How much of the effect of these herbs is merely psychological?”

Eisenberg: “I don’t think anyone could answer your question unless we test these remedies against something. But these people take the herbs because they’ve been helped by them. Chinese patients are basically very practical. If a remedy worked for them, or their brother, or their mother, or their grandmother, they’re going to take it.” [Moyers 1993:261-62]

Eisenberg’s response forces readers to question where their faith in any medicine, Western or Chinese, originates. In the U.S. it is not uncommon to trust statistics displaying other patients’ success with a certain treatment as validation for our own faith in the treatment’s efficacy, but we also tend to rely on recommendations by people we trust, often family or friends. This same

⁹ Ted Kaptchuk, a colleague and co-author of multiple articles with David Eisenberg is the director of Harvard University’s Program in Placebo Studies and Therapeutic Encounter. This program has published a wealth of research on the existence, and healing potential, of the placebo effect in biomedicine.

idea holds true for Chinese medicine, and seeing people you care about feel better after a certain treatment is often all the validation you need, regardless of how much is psychological versus physical improvement.

Patients and students also have a difficult time understanding the location and existence of energy forces that cannot be located on a Western model of the body. Moyers' asks Eisenberg to comment on the common misconception that qi can be explained through the Western concept of the nervous system.

Moyers: "We have nerve charts. Do they correspond to the pathways of chi in the Chinese system?"

Eisenberg: "No, the meridian system does not correspond to any anatomic map we have in the West. Some of the meridians are close to nerves or arteries, but no one in the West has been able to make a direct correspondence. Their diagnostic and therapeutic roadmap—the way they describe the workings of the human body—is totally different from ours." [Moyers 1993:264]

Moyers published Eisenberg's answer over twenty years ago, and since then there have been numerous attempts to connect acupuncture points to corresponding cellular and chemical interactions recognized by Western medicine. This question continues to fascinate dual practitioners. They have confidence that both organizations of the body are equally true and co-exist due to their experience seeing it work, but have no explicit way to bridge their practices by explaining one with the other.

Dr. Arya Nielsen is a researcher who holds a PhD in Medical Philosophy, practices Chinese medicine, and directs the Acupuncture Fellowship for Inpatient Care at Mount Sinai Beth Israel in New York City. She wrote her dissertation on the subject of connecting and reconciling Chinese and Western healing modalities. Her work focused on how her lab-based research, trying to locate and explain the benefits of Gua sha (stimulating an acupuncture point through vigorous massage or scraping), could explain the Chinese practice in a biomedical

language. In a summary of her research, prepared for the Publication of Pacific College of Oriental Medicine's 24th Annual Symposium, Nielsen concludes,

In the last decade, research has begun to clarify how Gua sha works. Gua sha's therapeutic petechiae represent blood cells that have extravasated in the capillary bed and measure as a significant increase in surface microperfusion. As this blood is reabsorbed, the breakdown of hemoglobin upregulates HO-1, CO, biliverdin and bilirubin, which are anti-inflammatory and cytoprotective. Studies show the anti-inflammatory effect of Gua sha has a therapeutic impact in inflammatory conditions, such as active chronic hepatitis, where liver inflammation indicates organ breakdown that over time can lead to premature death. [Nielsen 2012:3]

Nielsen's writing is overwhelmingly biomedical, to the point where it is hardly recognizable as the physical practice of locating a meridian point and scraping the skin.¹⁰ Such technical language offers a seemingly objective description, reducing it to a visual description and the clear individual reactions (cause), which explain the outcome (effect). This language carries Chinese medicine into the explanatory realm of biomedicine, making it more accessible to doctors familiar with a biomedical concept of the body. Research into the physical connection between Chinese and Western concepts of the body continue to be an important tool for the increased understanding and incorporation of one practice into another.

I.

Educational models, and the various academic routes now available to obtain certification to practice Chinese medicine in the U.S., represent another important factor shaping, defining, and altering the borderland between Chinese medicine and biomedicine in the United States. One route is reserved for medical doctors who are able to attend supplementary training courses to learn to practice acupuncture with a limited knowledge of herbal therapy. These require

¹⁰ In this excerpt, Dr. Nielsen describes how the small red spots visible on the skin after a Gua sha treatment (petechiae) are the result of blood cells being drawn to the surface. The reabsorption of this blood encourages production of "anti-inflammatory and cytoprotective" chemical compounds (HO-1, CO, biliverdin and bilirubin), increasing the body's natural ability to fight inflammatory diseases like Hepatitis.

approximately 300 hours of study time, and include a short clinical portion that teaches technique. Most of the course is done remotely to allow physicians to continue working.

On the webpage of one such medical acupuncture course offered by The Academy of Pain Research in San Francisco, the language describing the course reveals how legitimacy is applied to the practice of Chinese medicine in the United States. The school highlights its faculty's expertise in a variety of fields so as to seem approachable and relevant to many different types of doctors interested in this program. Of the twenty-four faculty members listed, seventeen are medical doctors, and represent six different countries. The faculty list includes professors at eight different American medical schools, such as University of California Irvine or Cornell Medical School, as well as professors at schools for Chinese medicine such as the American College of Traditional Chinese Medicine. The faculty's wide range of expertise, including radiology, rehabilitation medicine, anesthesia, integrative biology, obstetrics and gynecology, herbal medicine, ophthalmology, physiology, psychology, and urology, suggest Chinese medicine's applicability to many specialties within Western medicine. The course chairman and three honorary chairmen are also all medical doctors, implying that the practices taught are safe and beneficial to a Western medical practice. The faculty provides more than just medical instruction. They are role models for students who may be skeptical or concerned about how to integrate Chinese medical knowledge into their existing medical practices.

The program also highlights its ability to, "...fully integrate the East and West, the modern and traditional by applying modern scientific medical knowledge to interpret the principles of Traditional Chinese Medicine..."(Academy of Pain Research 2014). Here, the website's language indicates that the ancient practice of Chinese medicine must be reframed in modern prose in order to be understood and integrated into existing American medical

institutions. Highlighting the faculty's "modern" knowledge reveals the potential anxiety student-doctors may feel while learning Chinese medicine, fearing the unfamiliar practice may not be scientific enough for their patients or colleagues to understand it, or accept its efficacy.

The Academy of Pain Research has designed this course to appeal to those who wish to understand the basic underlying principles of Traditional Chinese Medicine in the familiar language of modern science. The 300 hours of training are broken into three phases, each of which builds on information from the previous one (Academy of Pain Research, 2014). They begin with "Essentials of Acupuncture" which introduces students to the location of acupuncture points, Traditional Chinese Medical theories, diagnostic techniques, and demonstrations of the skills on patients. This first phase incorporates two important techniques of teaching Chinese Medicine, one being the explanation of Chinese concepts in Western medical terms, and the other being the visual confirmation of efficacy, as demonstrated on a patient.

The second phase of the course, titled "Practical Clinical and Hands-On Training" is a 10-day, in-person segment meant to teach the skills necessary to practice acupuncture. It includes instruction on techniques, lessons in the "therapeutic approach", and experience locating points and inserting needles. The therapeutic approach includes, "Instruction in both the formula approach, based on empirical efficacy, and the analytical approach, based on theoretical reasoning, and their application to a spectrum of common medical conditions...enabl[ing] participants to more effectively apply their knowledge to improve patient care" (Academy of Pain Research 2014). The Academy's emphasis on "empirical efficacy" illustrates an effort to make Chinese medical practice more formulaic and objective, while "theoretical reasoning" assures doctors that their experience diagnosing patients based on a rational approach to available knowledge will still apply to their Chinese medicine practice. The Academy's course

description combines biomedical terminology, such as “scientific,” “analytical,” and “modern” with the prestige of their faculty, to express legitimacy within the American medical system. Building connections between doctors’ biomedical knowledge and Chinese medicine provides students with linguistic and experiential tools to explain the practice to their patients, colleagues, and administrators, directly impacting how these dual practitioners will navigate the borderland between the two practices.

II.

The United States’ medical system also recognizes Chinese medical practitioners who are not physicians but have obtained a three-year Masters in Acupuncture (MAc) or Master’s in Acupuncture and Oriental Medicine (MAOM). The second includes lessons in Chinese herbal medicine in addition to acupuncture. Graduates of either program must also pass a board exam to receive a license to practice acupuncture and Chinese herbal medicine. In order to be eligible to take the licensing exam for acupuncture, administered by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM)¹¹, one must complete 1,490 pre-graduation hours combining, “Foundations of oriental medicine, acupuncture and point location, and biomedicine” (NCCAOM 2014). Training also includes, “...six hundred hours of biomedical study, including chemistry, physics, anatomy, physiology and pathology” (Pritzker 2014:32). Any student interested in obtaining a license must submit a transcript from their school, and pass three board exams: The Foundations of Oriental Medicine, Acupuncture with Point Location, and Biomedicine. Those who wish to receive an Oriental Medicine certification

¹¹ According to the acupuncturist Sarah, from an email to the author on March 17, 2015, the National Certification Commission for Acupuncture and Oriental Medicine, “...is the main body that tests acupuncture knowledge...however, some states have their own board exams [such as] California or Florida.”

must also take a Chinese Herbology exam and complete 2,050 hours with at least 410 clinical hours (NCCAOM 2014).

The National Certification Commission for Acupuncture and Oriental Medicine's slogan, "Public Protection Through Quality Credentials," communicates an effort to standardize and legitimize acupuncture practice in the United States. The licensing process for acupuncturists is similarly structured to that of American biomedical education with required coursework, board exams, and clinical hours. It is important to note that a significant amount of biomedical knowledge is required in order to practice acupuncture in the United States. This requirement illustrates how an understanding of biomedicine can help legitimize Chinese medical practices in the United States, demonstrating its safety by ensuring practitioners understand the Western treatment methods also utilized by their patients. It also implies an effort to integrate acupuncturists into American medical institutions through a mutual knowledge base of biomedicine, rather than allowing them to practice completely isolated from biomedicine. A familiarity with biomedicine also allows students to be better prepared to communicate with patients, doctors, and colleagues in a familiar way, but it is important to remember that biomedical explanations of Chinese medicine often fail to communicate the entire concept accurately (Pritzker 2012:346).

Some might consider dry needling, a practice which places thin needles into the muscle experiencing discomfort (KinetaCore 2015), as a third educational route to the practice of Chinese medicine. I do not believe this represents integration of Chinese medicine into American medical systems since it lacks any understanding of the philosophical or uniquely Chinese concepts of the body that are present, to varying degrees, in the other two educational options. Dry needling is taught as an extension course for physical therapists, chiropractors and

medical doctors who already have a biomedical understanding of human anatomy, and wish to offer another option in pain treatment for their patients. While a certification in Chinese medicine for medical doctors or dentists requires some knowledge of the philosophy and diagnostic approach of Chinese medicine, dry needling is explained entirely through Western ideas, and neglects any concept of the connections along meridians or their ability to inform a more systematic approach to treatment, preferring to focus on the distinct muscle location that is causing pain.

Chinese medical education in the United States is heavily influenced by the expectation that biomedical explanations and language offer legitimacy to non-biomedical modalities. In order to practice Chinese medicine in the U.S., one is required to have an in-depth understanding of biomedicine and how it can explain the practices of Chinese medicine. Requiring practitioners to have an understanding of Western medicine thrusts all practitioners, not just doctors, into the conceptual borderland between Chinese and Western medicine. Biomedical knowledge is helpful for any provider hoping to work in the United States healthcare environment, but these requirements are also partially responsible for creating and perpetuating the challenges of a borderland, since biomedical language is not able to fully capture Chinese medical beliefs.

III.

After a practitioner of Chinese medicine is certified in the United States, they have options as to how they wish to offer these services to patients. From my research I have identified two major institutional methods of integrative practice in the American medical system. Both shape the landscape of this borderland, and provide some framework for practitioners attempting to navigate it. The first, “The Integrative Clinic,” is a group of medical

practitioners who are housed either in their own space within a traditional hospital setting or in their own independent building. The Osher Clinical Center, one example of the integrative clinic, opened in 2002 and is a member of Partners Health in Boston, operating in connection with Brigham and Women's Hospital (About The Osher Clinic, 2014). The clinical center is located within Brigham and Women's Ambulatory Care Center, a satellite location in Chestnut Hill, Boston. It is also closely related to Harvard medical school and the Osher Research Program. Dr. Smith,¹² a Boston based researcher and Tai chi instructor who works with the clinic, explained during our conversation that the Osher clinical center houses a primary care physician, an acupuncturist, a physical therapist, a nutritionist, a massage therapist, and a Tai chi/Qi Gong instructor in their distinct space within the Ambulatory Care Center.

Dr. Smith also explained that before the Osher clinic opened, these six health professionals were given six months to learn about the practice of all the other members of their team. This exposed them to the strengths of each treatment method and the potential weaknesses of their specialty, encouraging more referrals between team members if they thought it necessary. For instance, if a patient comes to the clinic complaining of back pain the primary care physician might first suggest they work with the physical therapist on stretching exercises to reduce the pain. If the physical therapist sees little improvement, they might suggest the patient visit the in-house acupuncturist. While the patient may move between different care strategies, the practitioners are always in conversation with each other, and work together to develop creative and effective treatment procedures for complicated cases. Dr. Donald B. Levy, medical director at the Osher Clinical Center, highlights the importance of communication in a promotional video, saying, "...to me [the Osher Clinic] is the model of the future, not just

¹² Pseudonym

coexisting but starting to communicate and talk to each other and expand our views of what is good medicine? What is healing?” (Brigham and Women’s Hospital 2013).

As a member of Harvard Medical School’s research institution, the Osher Clinic is compiling data comparing treatment in a traditional hospital setting and the new model of integration used at the clinic, “...steering a course toward integrative medicine based on sound scientific inquiry” (Brigham and Women’s Hospital 2014).¹³ They hope to measure the effectiveness of both treatment pathways based on a combination of quantitative measures such as cost, and more qualitative criteria such as patient satisfaction or reported time experiencing discomfort. The focus of a recent three-and-a-half-year study, completed in October 2014, was, “to characterize the decision-making process of both patients and conventional providers with respect to communication about and referral to an integrative care team in an academic hospital outpatient setting.” This study attempts to gather more information on the use, clinical and cost effectiveness, and safety of Complementary and Alternative Medicine like Tai chi or acupuncture (Buring 2014). Information was gathered through surveys to over 1500 new patients at the Osher Clinical Center, as well as 300 physicians likely to refer to the clinic from the wider Brigham and Women’s medical system. As of March 2015, no clinical or cost effectiveness results had been published from this study. Here, just as in the medical acupuncture course descriptions, we see an emphasis on understanding Chinese medical

¹³ According to their website, the Osher Center for Integrative Medicine at Harvard Medical School and Brigham and Women's Hospital have identified five areas of research. These are balance and bone health, mind-body exercises for heart and lung health, the physiology of healthy aging, connective tissue, and low back pain. More information about each of these topics is available at http://brighamandwomens.org/Departments_and_Services/medicine/services/oshercenter/our-research.aspx?sub=2.

practices through the “scientific” language familiar to biomedicine, this time in order to uncover “legitimate” data on its effectiveness.

Another clinic operating under this model is the Center for Health and Healing Department of Integrative Medicine at the Mount Sinai Beth Israel Hospital located in New York City. The use of “health and healing” in their name intentionally separates them from any negative associations patients may have with “healthcare” in the more traditional sense, but also expresses their association with a prestigious healthcare institution in New York City. When I first entered their midtown location, far away from the shiny glass hospital buildings and emergency rooms of Mount Sinai Beth Israel’s other locations, I was struck by the attractive and naturally curving walls guiding visitors into a warm, casual waiting room. A reception desk to my left did not block my view into back offices, immediately providing a more welcoming environment than other medical offices I have visited, designed only with ideas of patient privacy in mind. Stepping into the waiting room I surveyed the choices of cozy couches and low armchairs, noting a wide age range of patients, from kids to seniors. I found a seat at a large wooden dining table, feeling it belonged more in an old farmhouse’s kitchen than a medical office, and surveyed the books on the shelf next to me. Volumes about the healing power of meditation, healthy diets to fight a pre-diabetic diagnosis, alternative infertility treatments, the benefits of acupuncture and conscious diets in chemotherapy treatment, and more, were neatly organized along the far wall. The glow of non-fluorescent lights warmed the room as the sunlight outside fell behind the mammoth skyscrapers of Fifth Avenue. Potted plants, posters of acupuncture points, and the eclectic wall art all made me feel as if I were visiting someone’s large living room, rather than a doctor’s office.

The Center for Health and Healing hopes to offer its patients a different experience from the healthcare they might otherwise be accustomed to. As their website explains, the Center is,

...Helping to develop a new type of medicine that combines the best of conventional medicine, traditional indigenous medicine and expanded healing approaches. We find patients benefit most when working in partnership with their health care provider... The Center provides integrative healthcare by primary care and specialty physicians and practitioners of diverse healing traditions. Our space has been designed with environmentally sustainable materials, feng shui placement, soothing colors and natural daylight to promote a restorative healing environment. Treatment approaches are focused on engaging each person's physical, emotional and spiritual resources to support health and healing. [The Center for Health and Healing 2015]

Two important points should not be missed in their description. The first is how the center has combined Western expectations of medical care, such as “primary care” and “physicians” with other concepts of health such as “traditional indigenous medicine” and “environmentally sustainable materials.” By including both terms they express their identity as neither one nor the other, but rather a holistic combination of all medical services.

The second concept identified in their description is the acknowledgement that healing is about more than just the effectiveness of a drug or the speed at which someone feels better, but rather involves a balancing of the entire body. The Chinese emphasis on physical, environmental and mental health, and balance between them, is recognizable in this text. In their description of the physical space, the clinic highlights its comforting and intentional space for healing. This is not only attractive to patients who are unsatisfied with conventional medical settings, but it also exposes potential patients to the unfamiliar aspects, such as an emphasis on the patient's active role in healthcare, that will continue to be important in this new method of healing.

Besides the “integrative clinic,” there is a second model for integrative medicine in the United States. The “complementary” approach involves the independent practices of acupuncturists, or other non-physician health care providers, being visited through formal referrals from medical doctors, or informal recommendations from close acquaintances such as

friends, family, or co-workers. Access to this model may be limited by insurance coverage, and it is often only utilized when the referring physician or personal contact has had his or her own particularly positive experience with Chinese medicine. When I asked an acupuncturist located in the Boston area where most of his referrals come from, he explained to me how the specialization within Western medicine results in him receiving professional referrals from more than one source:

[In]... the Western field everyone is very specialized. You have GI [gastro-intestinal], [or] OBGYN [obstetrics and gynecology], and you have physical therapists, right? But even *they* are not experts in every field, so for example some of our big sources of referrals is a GI [gastro-intestinal] doctor. And the reason this GI [gastro-intestinal] doctor recommends acupuncture is because *he* gets acupuncture. So if he has someone with digestive problems that happens to mention they have knee pain, he might say, 'Oh, you should try acupuncture'. That's one case he would refer.

The second case is, if he [gastro-intestinal doctor] has a case that he has been working on for, you know, a *long* time, like a year trying to find the right medication or something, it's a difficult case and he has trouble with it. He might [then] say, 'This medicine is kind of working, not really working, why don't you try some acupuncture, because that can help...

Another big Western integration is infertility. And even many, many infertility clinics have their own acupuncturist on staff. Now many are integrating acupuncturists on their staff because of how much it increases the percentage of success rate in IVF cases [in-vitro fertilization.]

In his answer, this acupuncturist reveals a few important characteristics of complementary integration's structure. In the first example, the gastro-intestinal embodies the friend/family/co-worker role, applying a personal positive experience with acupuncture to help a patient out with a medical problem he is not specialized in. Here he is acting as a friend, exposing the patient to acupuncture, but likely not going through any formal referral process since this is not his medical specialty. With no formal referral, it is unlikely that insurance will cover more than a few, if any, acupuncture treatments.

In the second case described in the Boston acupuncturist's conversation, the gastro-intestinal doctor is out of options, and both he and the patient are unhappy with the course of the treatment Western medicine offers. Here the patient is probably a little more desperate for relief,

and therefore open to trying alternative therapies. The doctor's positive personal experience with acupuncture is just as important in this case since without it the GI doctor may not consider acupuncture as quickly, or endorse its legitimacy, if he had never felt the positive impacts himself.

As communicated by both these scenarios, the option of acupuncture is not thought of simultaneously with the option of biomedical interventions, but rather as a complement to the conventional treatments, reserved for challenging cases and personal recommendations. Unlike the integrative clinic, which attempts to create one medical strategy incorporating many different medical approaches, the complementary model considers services like acupuncture as ancillary to the predominantly Western, biomedical approach to healthcare.

At the end of the Boston acupuncturists' answer he mentions the increasing use of acupuncture in infertility treatments. It should be noted that the acupuncturist uses quantitative justification, "it increases the percentage of success rate in IVF [in-vitro fertilization]," to explain the increasing use of acupuncture in this field. Again, in this example the acupuncture therapy is a complement to the biomedical IVF treatment, and is incorporated because its efficacy is consistent and quantifiable. Patients of IVF are also likely more willing to try unfamiliar practices if it will improve their chances of becoming pregnant.

The idea of supporting, but not replacing, biomedicine is presented not only by the referring doctors, but also by the acupuncturists themselves. This Boston acupuncturist spoke to me about his relationship with Western medicine as follows.

Of course, when you check someone's tongue and pulse you can always give a different diagnosis [than Western medicine]. People that used to have cancer still have cancer, but acupuncture can help keep their immune system functioning well...it helps their emotion, digestive system. Many cancer patients are on a lot of medication, so we treat the side effects [of chemotherapy]. We always work with Western and Eastern combined. There are very rare times that we say, 'Don't do the Western treatment.' We work together with the Western doctors; it's a complement to treatment. ...When people come in with back pain...we *always* do an evaluation and if we think

they need an X-ray or an MRI we always tell them to do that. It just doesn't make sense why not. Why wouldn't we do that?...[It] gives us a better prognosis for the patient as well.

In this comment, the acupuncturist exhibits an appreciation for the tools that Western medicine provides, and a striking commitment to playing a supportive role. I found his examples of X-rays and MRIs particularly revealing because it shows that regardless of his skill with pulse and tongue diagnosis, he feels that visual information about the condition of the body is always beneficial. In fact, the acupuncturist implies its value should not be ignored simply because these technologies were not available to the ancient Chinese.

IV.

Having explained the two most apparent methods of institutional integration between Western and Chinese medicine in the United States, I would like to further describe the landscape of this borderland through observations about the patient, another very important individual who inhabits it. As mentioned above, many patients who receive Chinese therapies in the US are often unsatisfied by their experience with Western biomedicine. Dr. Robert Heffron, a Western and Chinese medical doctor who teaches at Brown University's medical school, explained that his patients tend to be motivated by one of two things.

They [my patients] are either hippies [who] ...want a spiritual path...Or it's people who have been sick and not helped. As one of my teachers used to say to patients who didn't want to make the lifestyle changes, 'Well, I guess you haven't suffered enough, why don't you go home and suffer some more, and then when you are ready, I'll be here, you can call me back....Or [for] people who would keep complaining and never change anything, another one of my teachers...used to say to people who never changed their diet the way he suggested...or [complained] the herbs tasted terrible, he would say, 'Feel better or feel worse, whichever makes you feel better.' There is no question that this puts a lot of responsibility on the patient.

Worsley suggests that patients who are utilizing unfamiliar medical practices, such as Chinese medicine, are more apt to meet doctors' expectation about playing a more active role in their treatment. He explains, "...the sick person [who is not being helped by biomedicine] is seen not as a passive 'patient' ...but as an agent, a subject seeking health... (Worsley 1982:324-5). Sick

people who are committed to playing an active role in becoming healthy again are far more likely to seek out treatments from alternative medical providers, either because they want their values respected, or because they are out of options.

I think that the type of patient described here is a product of the complementary system that exists in the United States. While visiting an integrative clinic still requires some patient initiative, since they are not as numerous as more conventional primary care facilities, once a patient chooses an integrative clinic they have more options available to them. Unlike the complementary model, where a patient is expected to seek out and pay for another appointment on their own, the integrative clinic model encourages greater use of non-Western practices since a primary care doctor could simply walk a patient down the hall to visit an acupuncturist. Therefore, in the integrative clinic model, the potential patient is not necessarily limited to one of the two categories that Dr. Heffron mentions.

Dr. Heffron himself has attempted to make acupuncture treatment more visible and accessible by offering a free clinic in the primary care wing of the local hospital affiliated with Brown Medical School. His hope is that if he is immediately available and visible to busy doctors and uncomfortable patients then he may be able to help those who would not think to seek out his treatment in the first place. I consider this a third model of integration and will refer to it as “clinical based integration”.

For many years Dr. Heffron ran a private practice in the Washington DC area that offered patients a combination of both Chinese and Western treatments. In this setting he was being sought out by the “hippies and desperate patients” mentioned above. Most of his patients arrived at his practice through an informal recommendation based on a friend’s positive experience, since the conventional medical institutions did not accept his work. I consider this to be an

earlier form of the complementary model we see today. Although he did not have the support from the medical community, which today's complementary model increasingly receives, he was still considered a supplementary option, reserved for those cases where conventional medicine was attempted, but did not work.

Dr. Heffron has noticed a greater acceptance and interest in Chinese medicine, and other non-conventional medical practices, among the medical community since he first started practicing, but research into the use and effectiveness of these alternative treatments is still motivated predominantly by desperation. For example, the chief of medicine at a local teaching hospital near him just began a study looking at the impact of Qi Gong practice on breast cancer treatment. To Dr. Heffron, it seems as though doctors studying the most intractable problems are most willing to try unconventional options, and while he is encouraged by any research into Chinese medicine, he believes this is unfortunate for the overall benefit of patients.

[The patients are] either going to be there [at a non-Western medical practice] because [they] are into alternatives, or [they] are going to be there because the conventional stuff did not work. And so, the most difficult problems, where people are not doing well, tend to be the place where this [non-conventional medicine] gets used first. It's a shame, because if you think about the techniques, and how low tech they are and gentle...[for example] people would rather get acupuncture than get on muscle relaxers... it's a shame that it is sort of a last resort instead of the first stop for a lot of problems. That was my hope in my clinic. How are we going to change doctors to do this as part of their normal, primary care practice?

Dr. Heffron's inpatient, hospital setting is unfortunately not currently open because the hospital will not provide him with any space to run it. Dr. Heffron explained that they are currently going through a major overhaul of their system, having just been bought by another company, and do not see the cost effectiveness of the acupuncture clinic. While this is frustrating for Dr. Heffron, he is accustomed to this type of treatment from conventional medicine, and believes it will not change until cost effectiveness is shown.

While Dr. Heffron may be kept from integrating into the clinic setting for a little longer, according to the Boston-based acupuncturist, many of the major hospitals in the Boston area have begun hiring acupuncturists on staff, and increasing their use of clinical based integration. The acupuncturist in Boston made a point to note the background of these hospital acupuncturists.

I think a good percentage of people who do acupuncture in hospitals have MD backgrounds. [Pause] Not to say that as a negative thing, but the difference between a licensed acupuncturist and an MD that takes a three hundred hour course...[they are] not the same. But at the same time, [in] my personal opinion, the person that takes a three-hundred hour course learning about meridians and everything, can be *just as good* as someone that is a licensed acupuncturist, but I think statistically most people that work in hospitals either have an MD background or they were former nurse practitioners.

Again, this integration follows a complementary model as the acupuncture is practiced only in support of Western diagnoses and treatments. However, it does allow more patients, especially those who do not fit into Dr. Heffron's initial categories of "hippies" and "the desperate", to be exposed to acupuncture in a more familiar setting.

Not only does placing acupuncture in the hospital setting expose more patients to the practice, it also begins an incorporation and legitimization process, making Chinese medicine more familiar to a Western audience. All the practitioners of Chinese medicine with whom I spoke not only had to bridge the understanding gap between Western and Chinese medical models for themselves, they also often have to explain it to their patients. These explanatory practices became an important part of my research, as they help American practitioners of Chinese medicine teach their patients, who are equally saturated in Western views of the body, disease, and healing, to understand the treatments they are receiving.

It should be noted that many practitioners felt their patients were only interested in a basic understanding of the treatment. I found this surprising, given my never-ending curiosity about the practice, but propose two possible explanations for this lack of interest. First, it may be

due to the type of patient they typically see, since a patient with very few treatment options still available will likely be less reserved or cautious about what is being done to their body. Second, American patients may be accustomed to playing a passive role in their interactions with doctors, relying on the education and authority of the medical profession to provide an easy fix without having to internalize any of the doctor's vast medical knowledge about how it works. It is rare to have a Western, biomedical doctor explain in detail how various pharmaceuticals interact within your body, and so it follows that many patients will trust their Chinese healers with the same, somewhat blind, faith.

Dr. Erica Lovett, a family physician and medical acupuncturist in Maine, sees herself as an introduction to the potential benefits of Chinese medicine. She only offers integrative medicine appointments two days a week, and during that time can meet with patients for a slightly longer appointment. These longer appointments provide enough time to explain and administer an introductory experience with acupuncture if she feels they may be helped by it. She often treats pain patients who would prefer to try non-pharmaceutical interventions. Dr. Lovett often informally refers her patients to licensed acupuncturists in the area so that they can receive a more complete treatment, with the required frequency of visits, since her schedule for integrative medicine is so limited. Dr. Lovett found that many of the patients who came to visit her for integrative medicine exhibited this somewhat blind faith that she would not hurt them.

It's interesting, because I think the people that try it [acupuncture], are more open to try different things because other things are not working for them. So they kind of go in faith knowing that I will not hurt them, and know what I'm doing, and so even if they don't understand it they are willing to try it. Some of them. Others of course are not. But I don't think any one thing is right for everyone.

The patient population of these practitioners is less skeptical of unfamiliar treatments because they are either desperate for other options, or actively seeking a different approach to healthcare.

Dr. Heffron, Dr. Lovett, and others are hoping that placing acupuncture in familiar healthcare

settings, such as hospitals or primary care offices, will encourage greater use of these non-invasive and often beneficial treatments for a greater number of people.

V.

While acupuncture is one of the most common Chinese medical practices used in the United States, according to an email correspondence with the acupuncturist Sarah,¹⁴ those who receive a Master's of Acupuncture and Oriental Medicine (MAOM) also learn how to treat with Traditional Chinese Herbal medicine. The same diagnostic technique is used in both treatments, but the desired balance is encouraged through herbs that contain certain elements instead of stimulating the points that correspond to those elements. Acupuncture and herbal medicine may also be used simultaneously. In the same way that acupuncturists are able to order their needles in sanitized packages of ten from a distributor, they can also get Chinese herbal medicine shipped directly to their practice from herbal pharmacies. These suppliers represent another important constituency that shapes, and is shaped by, the landscape of this borderland by building a market infrastructure that contributes to greater integration of Chinese medicine into U.S. medical institutions. The language used by these herb companies, and the hospitals who prescribe them, convey certain adaptations made in order to fit Chinese herbal medicine into biomedical concepts of safety and legitimacy.

One such supplier is the Crane Herb Company, which lists Cleveland Clinic's Center for Integrative Medicine—a member of the nation's third largest hospital system—as a partner who they supply with “full confidence” (Figure 2.1). The Crane Herb Company recognizes that herbal medicines are often subject to more skepticism than biomedical pharmaceuticals. Promotional text on Crane's website supports the explanation of Chinese ingredients with

¹⁴ Pseudonym

descriptions of quality assurance, emphasizing a scientific language that comforts many Western doctors and patients.

One example of this reassuring language appears as Crane Herbs describes how they make their medicines. The “concentrated granules” used in their compounds originate from KPC-Herbs, “...the only Chinese herb manufacturer to meet the rigorous standards of industrial nations” (Figure 2.1). This helps ease fears about the relatively unregulated herbal market, especially compared to the biomedical pharmaceutical industry. The term “concentrated granules” is also important. It appears to be a hybrid between herbal and biomedical drugs, suggesting that the actual plants have been reduced and transformed into concentrated healing elements, or active ingredients. This is something that David Eisenberg, in his conversation with Bill Moyers, claimed could not be done.

The Crane Herb Pharmacy’s website maintains this same identity of controlled production throughout their web page. The images on its homepage (Figure 2.2) show the herbs being manufactured in an automated stainless steel machine, invoking a sense of sterilization and industrialization. The image conveys a lab-like setting, and the website makes a point to highlight their compliance with Food and Drug Administration’s (FDA) Good Manufacturing Practices, ensuring consistency and safety to their customers. All of these symbolize Crane Herb’s integration into American medical institutions, and the importance of cleanliness and consistency to provide legitimacy to the production of Chinese medicine in the United States.

It is also interesting to note that in Figure 2.1, the availability of Crane’s herbal medicine at the Cleveland Clinic is not being sold as an ancient healing art, but rather as a modern, cutting-edge option that supports Cleveland Clinic’s formidable reputation as a “leading medical innovator” (Figure 2.1). The Cleveland Clinic’s Herbal Therapy Medicine Fact Sheet (Figure

2.3) communicates herbal medicine's historical roots, but only in combination with their modern practice of it. Cleveland Clinic highlights the close relationship between physician and herbalist, ensuring that the herbs will not be harmful when taken simultaneously with biomedical medications. At the same time, Cleveland Clinic also grounds its practice in ancient tradition by explaining that all of their herbal treatments “draw from ‘Materia Medica’, a traditional Chinese medicine text that covers thousands of herbs, minerals, and other extracts” (Figure 2.3). This communicates how well-researched the practice of Chinese herbal medicine is, and assures patients it will not be administered by “quack” doctors who have no knowledge of the original teachings.

Crane Herbs, and its integration into a large hospital setting like Cleveland Clinic, provides an excellent example of the mechanization and sterilization that has become synonymous with safety and modernization in American healthcare. Given Crane Herbs' marketing strategy, I suspect that they have found it beneficial to Chinese herbal medicine's acceptance, and their business' financial success, to highlight safety and industrialization in order to assign legitimacy to their work.

VI.

Examining the current landscape of Chinese medicine's integration into American medical institutions reveals current beliefs and adaptive practices that help assign legitimacy and prove the efficacy of Chinese medicine. While both the integrative clinic and complementary model can provide American patients with access to Chinese medicine, the complementary model aligns more closely with the compartmentalized organization of the body and its care that already exists in American medical systems. For this reason, I would guess that the complementary model is more familiar, and therefore more prevalent than the integrative clinic

model¹⁵. In either case, Chinese medicine remains at least partially separated from Western medicine, and legitimacy is assigned by transforming it into something familiar which American doctors and patients can understand.

Given the philosophical, linguistic, and conceptual differences between the two medical practices, demanding familiarity and understanding in order to accept Chinese medicine's benefits significantly limits the integration of Chinese medicine into American medical institutions. Requiring Chinese medical practitioners to acquire biomedical knowledge and defend their practice with it, while understandably helpful, also creates a conceptual borderland, and perpetuates the challenges facing the practitioners who inhabit it. The translation and transformation of Chinese medicine into something that can be explained in biomedical terms is difficult, if not impossible, but the American medical system continues to expect such attempts in order to legitimize the practice. This encourages Chinese medical practitioners, schools, and businesses to develop adaptive strategies to communicate their Chinese medical knowledge using biomedical language.

The more time a practitioner spends navigating their borderland and developing adaptive strategies to bridge the two belief systems, the more confident they become in their practice. These strategies are developed through years of speaking with patients and colleagues. The older, more experienced practitioners I spoke to were more accustomed to sharing ideas of Chinese medicine in a Western vocabulary and mindset. Younger doctors, new to their dual practice and still struggling with their own understanding and connection between their two identities, found it more difficult to relay their practice to patients and institutions.

¹⁵ I have not researched or definitively calculated the prevalence of both models in the U.S. today, but it would be interesting to see if complementary approach does dominate, given its structural similarity to other aspects of American healthcare.

Navigating this borderland becomes easier as practitioners gain experience crossing between the two sides, and become accustomed to the expectations of each. Anzaldúa suggests *la mestiza* will achieve greater success in this transition if they learn to shift,

...From convergent thinking, analytical reasoning that tends to use rationality to move toward a single goal (a Western mode), to divergent thinking, characterized by movement away from set patterns and goals and toward a more whole perspective, one that includes rather than excludes. [Anzaldúa 2007:101]

The following chapter will highlight the importance of this shift in practitioners' ability to learn and practice Chinese medicine, through a greater acceptance of ambiguity in knowledge. This is one of three adaptive strategies developed by American practitioners of Chinese medicine when navigating their borderland.



ABOUT CLEVELAND CLINIC

Cleveland Clinic, the third largest hospital system in the country, is a leading medical innovator. Their multi-specialty medical center integrates clinical and hospital care with research and education. At Cleveland Clinic's Center for Integrative Medicine, herbal medicine has been added to their clinical practice along side of conventional medicine.

ABOUT CRANE HERB

Crane Herb was chosen because of its integrity and leadership within the Chinese herb industry. Crane taught Cleveland Clinic how to think critically about their unique requirements and offered solutions in which the hospital could have full confidence. Only Crane Herb Pharmacies compounds custom herb prescriptions which comply with the FDA cGMP standards, FDA Labeling requirements, Allergen Warnings and HIPAA.



ABOUT KPC

KPC is certified by TGA, PIC/S and ISO 9001 and the only Chinese herb manufacturer to meet the rigorous standards of all industrialized nations. Crane Herb is proud to only compound with KPC concentrated granules.

TGA Health Safety Regulation



Figure 2.1. Screenshot of Crane Herb Pharmacy and Cleveland Clinic Partnership Graphic. Date of access: 12/30/14.



Figure 2.2. Screenshot of Crane Herb Website Banner. <https://www.craneherb.com/home.aspx>. Date of access: 2/12/15.



TANYA I. EDWARDS, MD, CENTER
FOR INTEGRATIVE MEDICINE

Chinese Herbal Therapy

What is Chinese herbal therapy?

Chinese herbal medicine is a major part of traditional Chinese medicine. It has been used for centuries in China, where herbs are considered fundamental therapy for many acute and chronic conditions. Herbalists in our Chinese Herbal Therapy Clinic draw from “Materia Medica,” a traditional Chinese medicine text that covers thousands of herbs, minerals and other extracts.

What conditions are best treated with Chinese herbal therapy?

Like acupuncture, Chinese herbs can address unhealthy body patterns that manifest in a variety of symptoms and complaints. Chinese herbal therapy aims to help you regain homeostasis, or balance, in your body and to strengthen your body’s resistance to disease. Chinese herbs may be used to:

- Decrease cold/flu symptoms
- Increase your energy
- Improve your breathing

- Improve digestion
- Improve your sleep
- Decrease pain
- Improve menopausal symptoms
- Help regulate menstrual cycles if infertility is an issue

Chinese herbal therapy can also be a valuable additional therapy following cancer treatment to aid the body’s recovery from the after-effects of chemotherapy and/or radiation. Chinese herbs are useful in rehabilitation for other chronic diseases too. We may recommend Chinese herbal therapy when:

- You have multiple symptoms or they are hard to pinpoint
- You’ve exhausted traditional medical options and nothing seems to help
- You need therapy to counteract side effects of prescribed medication
- You are interested in preventive treatment



What happens during a Chinese herbal therapy consult?

The herbalist in the Center for Integrative Medicine can prescribe herbs either as primary therapy or as a complement to acupuncture treatments. The herbalist will perform several diagnostic procedures and take a detailed health history. This will include your past and current illnesses, and medication use. Once you have been fully assessed, the herbalist will make recommendations and provide either a proprietary or custom formula.

Is Chinese herbal therapy covered by insurance?

No. Chinese herbal therapy is not covered by insurance.

Is Chinese herbal therapy a replacement for conventional western treatment?

No. Chinese herbal therapy is not a substitute for conventional medical diagnosis or treatment. However, it can complement your conventional treatment plan. Your herbalist will work closely with your physician to manage your care and monitor your course of treatment while on the Chinese herbal therapy. Prior to starting any Chinese herbal treatment, we advise you to consult with your physician.

Will Chinese herbal therapy interfere with my medications?

No. Our clinic's herbalists are overseen by physicians and are trained to know how herbal therapy can interact with prescription medications. In addition, they will always ask you about any over-the-counter medications and supplements you are taking to make sure that herbal therapy is safe and effective.

Do I need a referral?

Yes. A physician referral is required for a Chinese herbal therapy session.

Contact the Tanya I. Edwards, MD, Center for Integrative Medicine for appointments with our herbalist

To schedule an appointment in our Chinese Herbal Therapy Clinic or other forms of integrative medicine, please call 216.448.HEAL(4325).

For more information about Center for Integrative Medicine services, visit clevelandclinic.org/integrativemedicine or call 216.448.HEAL(4325).

15-WEL-044

Figure 2.3. Chinese Herbal Therapy Fact Sheet.
<http://my.clevelandclinic.org/ccf/media/Files/Wellness/cim-fact-sheets/Chinese-Herbal-Therapy-Fact-Sheet-rev-01-15>. Date of Access: 2/12/15.

“...As a person who practices family medicine, I always have to have my Western Medicine hat handy, and I have to analyze whether this problem is best addressed from Western or Chinese point of view, or both. I work closely with other doctors, and I’m sort of like a bridge between those two ways of knowing” (Dr. Richard Hobbs)

“Because I, a mestiza, continually walk out of one culture and into another, because I am in all cultures at the same time...” (Anzaldúa 2007:99)

Chapter 3:

Adaptations Along the Borderland: The personal integration of Chinese and Western Medicine

In the study of borderlands, observing areas of relative peace between the two sides often reveals, “adaptive patterns framed in functional formats of social equilibrium” (Alvarez 1995:462). The borderland between Western and Chinese medicine, while presenting intense challenges to the beliefs of its inhabitants, exhibits such areas of harmony because practitioners are able to develop adaptive strategies to ease the transition between the two. In my research I have uncovered three such adaptive tendencies within the personal practices employed by American providers of Chinese Medicine as they seek to overcome the challenge of understanding and integrating often-conflicting views of the body and health. It will quickly become clear that the distinct divisions I imply between these tendencies are often blurred, and most practitioners employ multiple strategies in order to reach an understanding of the different medical practices. Both Sagli (2010) and Pritzker (2010; 2012; 2014) observed a similar combination of strategies shaping students’ eventual understanding and acceptance of Chinese medical beliefs.

The first strategy seeks to effect a physical and mental separation between the two, acknowledging that each has its own useful application, and that it is easier to maintain these

boundaries than combine them. I have grown accustomed to calling this method, “wearing-two-hats” after hearing the phrase used by multiple practitioners. The second tendency concerns a necessary acceptance that two very different diagnostic realities may exist at once, and it is the careful recognition of either reality that guides the course of treatment. The third adaptation values physical experiences, guided by touch, visualizations, and metaphors, in the transfer of Chinese medical knowledge to facilitate a more innate, physical understanding of unfamiliar ideas. Allowing audiences who are familiar with biomedical ideas to have a personal experience with the abstract and unfamiliar concepts of Chinese medicine encourages a greater “buy-in” to the efficacy and legitimacy of the practice. These three strategies allow anyone interacting with Chinese medicine to develop an understanding and faith in the practice, even when a lack of linguistically equivalent translations or visual evidence may challenge this acceptance.

I.

The practitioners who employed the strategy of “wearing-two-hats” often bridged the gap between American academic institutions and personal practices of Chinese medicine. Dr. Arya Nielsen, the Chinese medicine practitioner who specializes in Gua sha at the Center for Health and Healing, spoke to me at length on a quiet December afternoon about the importance of language when communicating with colleagues in both realms. She revealed how thoughtful decisions regarding the use of different linguistic styles for different audiences could facilitate a better outcome. Dr. Nielsen’s life and career history is full of fascinating connections between both kinds of medicine, and she has become a leader in the integrative medicine movement, motivated by a personal desire to offer patients the best healthcare possible. The following excerpt from my field notes illustrates both her personality and her office space, which contained objects, like her framed diplomas, that illustrate her interesting career path.

Dr. Arya Nielsen has an infectious spunk that was apparent from the moment she walked over to me in the waiting room of the Integrative Medicine Clinic in Manhattan. She is the type of woman who seems too cool for a formal handshake, but is also too intelligent to not provide that type of respect. She led me to her office, which was small, but appeared fairly new. There were two comfortable chairs, with a potted plant between them, as well as a rolling office chair, which Dr. Nielsen sat in. She had to run and check on a patient just as I sat down, leaving the room to remove acupuncture needles in order to complete his appointment. She left the door ajar as she left, and the voices from the hall of the clinic were a loud and friendly mix of Spanish and English. This felt unlike many medical care facilities I had been inside. Observing her small office I notice the five, framed certificates hanging on her wall, including her PhD, her acupuncture license, and an education license.

When Dr. Nielsen returns she sits down with such force that the rolling chair slides across the floor, after which she props her feet up on the side table, tucked next to the plant. After letting out a big sigh she turns her head towards me and asks, "Is this ok?" gesturing towards her feet. I nod vigorously, amused and intimidated by this woman. As I begin asking a question, she interrupts me, "Is that a stain on the curtain?" I note this as an example of her powers of observation, not to say she is rude. She explained that the Center was opened in 2000, and comments dryly how the curtains have likely not been changed since then.

Dr. Nielsen continued to speak frankly about practicing acupuncture therapy for over 37 years. She was a member of the first class to graduate from the New England School of Acupuncture, the first acupuncture school in America. She was most drawn to Chinese medicine because of its focus on preventive medicine. At school she learned from a master healer, Dr. So, and treasures that she had the opportunity to learn a more classical form of Chinese medicine from him. Learning from Dr. So enabled Dr. Nielsen to practice a more all-encompassing acupuncture therapy, which included both herbal and philosophical training.

During her third and final year of acupuncture school, she found out she had also been accepted to medical school at Tufts University. At this time she had to choose whether to complete her clinical studies in acupuncture, as the final year was heavily focused on mastering the techniques necessary to practice, or attend medical school as she had always intended. Dr. Nielsen explained to me how a very important dream helped her choose which medical tradition she wanted to practice. Leaning against her office wall, with both of our coats already on as we were about to walk out the door together, she narrated the dream to me.

In this dream I saw two versions of myself. There was the current (at the time) me, a hippie girl wearing bell-bottoms and a leather vest, staring at myself as a doctor in a white coat. The doctor-me was overweight and obviously unhappy. Thinking back on it, I realized that the doctor [version of me] was being held back by her patients' unwillingness to fix themselves. She was full of other people's problems. I didn't want that. I wanted to work with patients who wanted to take on some responsibility for their health, take part in their care, and play an active role in getting better. I decided that medical school was not the right path for me, but sometimes I wonder if I should have gone.

Dr. Nielsen went on to explain how her interest and participation in the anti-Vietnam War movement inspired a passion for community organizing, something Chinese medicine supported as well. To her, Chinese medicine's emphasis on preventive medicine and patient-motivated healing contributed to stronger communities, and more lasting health benefits than conventional Western medicine. She was also passionate about the concept of agency, and fostering agency in other people, an idea that Chinese medicine supports in its expectation of an active patient. In a written personal statement about her practice, Dr. Nielsen elaborates on these ideas.

When I was young in my medical career I considered myself an activist and community organizer. I saw very quickly that when individuals and families were not well, political and economic change were impossible. Twenty-five years ago I knew I wanted to practice a kind of medicine that not only treated illness but also taught people how to be well. I practice and teach acupuncture and East Asian medicine because the practice is a collaborative effort between myself and the patient, where the patient narrative and experience of illness guides the "diagnosis" and treatment. Through this fully engaged cognitive and somatic rapport the patient accesses a deeper level of involvement in the healing process. This shift toward well being in an individual can then positively effect [sic] their family and community. I now look forward to practicing this tradition of medicine in a collaborative setting at the Center for Health and Healing. [Nielsen, 2015]

Dr. Nielsen never abandoned her interest in biomedicine though, and spent years performing lab-based research on the potential biomedical explanations for the techniques and practices of Gua sha. She drew on this research when she went back to school to complete her doctorate in the philosophy of medicine at Union Institute.

Dr. Nielsen's work spans two very different expectations for, and approaches to, medicine. At The Center for Health and Healing she is a practitioner of Chinese medicine, including acupuncture and Gua sha, and is helping patients realize their own agency within

medicine. She also works in the academic sphere where she is the premiere authority on biomedical research into Gua sha, and an important name in the fight to legitimize and incorporate Chinese medical practices more fully into the American medical system.

While Dr. Nielsen confidently explains acupuncture using Chinese concepts of qi, she also hopes that further biomedical research will help to convince the American medical community of the efficacy and benefit of acupuncture. In this excerpt, introducing acupuncture to those unfamiliar with it, Dr. Nielsen first describes it in Chinese terms, later summarizing current biomedical theories as to how it works.

The cultural construct of East Asian medicine holds that the human body is a part of nature. Body Qi resonates with the Qi of the natural world, as stated in the aphorism: 'If there is free flow, there is no pain; if there is pain, there is no free flow'. Observing when water flows in a stream, life abounds in and around it. If the stream is blocked, areas below the blockage are deprived, and areas above the blockage collect excess water, which stagnates and rots.

The body is seen as having channels or meridians of streaming Qi, Blood, and Fluid. If moving freely, life is fostered and health is maintained. If obstructed, there is pain, congestion and eventually illness. Acupuncture moves Qi, Blood and Fluids, it supplies where there is deficiency, drains where there is excess, and moves through where there is obstruction. [Nielsen 2015]

Here Dr. Nielsen is using natural metaphors, such as streams, to evoke the physical existence of Qi energy within the body, and connect it to the organic environment. Most readers have viewed a pool of unpleasant stagnant water, and can follow Nielsen's suggestion that the same type of stagnation within the body is related to poor health. Dr. Nielsen continues the explanation with the biomedical theories that currently exist to explain the Chinese system.

The modern biomedical construct of Western research has confirmed that acupuncture causes neural and extra neural biomechanical and biochemical changes. We have known for some time that acupuncture stimulates the brain's release of endorphins, but that the endorphin release alone cannot account for all of acupuncture's therapeutic effect. Reflex stimulation accounts for the sympatholytic effect that spreads throughout a body segment releasing vasoconstriction that is caused by muscle shortening common to pain and spasm. When the muscle releases, the pain and spasm resolve. [Nielsen 2015]

In the second part of her description, Dr. Nielsen has switched her language from that of visual and physical metaphors to industry-specific terms accepted by biomedical professionals.

Without a background in human anatomy it is very hard, even for the highly educated reader, to picture what response the acupuncture needle is prompting in the body given this description.

Nielsen continues, this time incorporating the importance of connective tissue in biomedical explanations of acupuncture.

Extra neural changes are responses outside of the nervous system. When a needle is inserted into a point it penetrates into the connective tissue, causing a tiny wound, discharging injury potential. Platelet derived growth factor (PDGF) is delivered to the injured site which in turn induces DNA synthesis and stimulates collagen formation in the connective tissue. The effects of this stimulation last several days until the tiny wounds heal. Since connective tissue is a contiguous fabric wrapping the entire body, as well as every organ, muscle, vessel, nerve, down to every single cell, it is theorized that the channel system for the streaming of Qi lies in the connective tissue.

Within this connective tissue there is also a measurable electrical phenomenon called 'piezo electric effect'. Acupuncture points are known to have increased electrical conductivity and decreased electrical resistance. They act as little gates or doors where stimulation, even touch, enters deep into the body. [Nielsen 2015]

This final excerpt opens with the physical explanation of small cuts, an outcome one can imagine occurring from the insertion of an acupuncture needle, given its shape, regardless of one's knowledge of biochemical responses or energy pathways. It then adds the biomedical explanation of chemicals (PDGF) being released, which in turn stimulates healing properties. This description is similar to the way biomedicine explains and discusses the immune system's response to irritation, drawing blood and helpful antibodies to the sight of potential infection. It therefore makes sense to readers educated in biomedicine that inserting an acupuncture needle could stimulate this type of response, but it lacks the same emphasis on interconnectivity and fluidity that was so powerful in Dr. Nielsen's first explanatory prose.

In this passage, Dr. Nielsen separates her Chinese medical explanation and biomedical explanation, even within the same document. There is little overlap of language, style, or metaphors. The first includes more visual, environmental, and system-oriented language, while

the second reduces the process into isolated observations of the different biological structures involved. Here we observe the divide that Nielsen was describing when she told me she constantly wears two hats. In one role, she conceptualizes her practice in Chinese terms, while in the other she explains it using Western medical language. She switches between the two based on her audience, intention, and final end-goal.

Dr. Nielsen's audience is much broader than the patients and loved ones who consult Chinese medicine practitioners, motivating her to develop an explanatory model that incorporates biomedical knowledge. Nielsen is heavily involved in the ongoing effort to legitimize and integrate Chinese medical practices into American medical systems.¹⁶ This task requires a significant and strategic use of biomedical language in order to convey efficacy, and build working relationships with dominant medical institutions and their practices that exercise hegemonic authority in the field.

One such effort encouraging greater acceptance of Chinese medicine that Nielsen has pioneered is working to have non-pharmacological interventions for pain included into the national guidelines of the Joint Commission, an organization that oversees accreditation of all hospitals and clinics in the United States (Pacific Symposium 2015; Weeks 2014:1). Combining information such as the astounding 400% increase in prescription drug-related deaths over the past decade (PAINS Project 2014), with a comprehensive literature review of acupuncture's

¹⁶ Frequently described as, "the Western authority on Gua sha" (Icahn School of Medicine 2015), Dr. Nielsen has authored or co-authored numerous papers exploring the effectiveness and integration of acupuncture and Gua sha into American medical practices. Selected titles include, "Safety Protocols for Gua sha (press stroking) and baguan (cupping)" (2012), "Effectiveness of traditional Chinese 'Gua sha' therapy in patients with chronic neck pain: a randomized control trial" (2011), "Gua sha research and the language of integrative medicine" (2009), "Acupuncture and heart rate variability: a systems level approach to understanding mechanism" (2012). Dr. Nielsen is also the author of the textbook, "Gua sha: A traditional technique for modern practice" and has created a supplementary DVD, seminars, and a Gua sha certification program (Nielsen 2013).

proven effectiveness in pain treatment, Nielsen and others successfully revised the Joint Commission's 2014 professional guidelines for pain treatment to include acupuncture, physical therapy, massage therapy, chiropractic therapy, osteopathic treatment, and naturopathic options (Weeks 2014:1). When drafting guidelines for physicians, the language and order of the suggested treatment options become important allies in establishing legitimacy for non-pharmacological options among the American medical system. *Huffington Post* contributor John Weeks highlights these structures in Dr. Nielsen's revised guidelines, writing,

The beauty in the language of the revised standard is the side-by-side placement of 'non-pharmacologic' and 'pharmacologic' approaches. In fact, the non-pharma options are listed first. While this order was likely for alphabetical reasons, it follows a proper therapeutic order in which less-invasive approaches are considered first. [Weeks 2014:1]

Thoughtful application of biomedical language in a publication that aims to educate American doctors holds the potential to share the effectiveness and legitimacy of "non-pharma options" for pain, as well as increase familiarity so as to promote its use in other areas of medicine.

Dr. Nielsen is aware of the critical role that language plays in the legitimization of non-Western medicine. She described her discomfort with the term "alternative medicine", and a preference for "indigenous medicine" or "original medicine" to convey the long, trusted history of Chinese medical practices. In her conversation with me, she frequently appeared frustrated by the reality that she and other practitioners needed to legitimize original medicine, when it has successfully kept people alive for thousands of years. She explained, shaking her head, "We seem to have forgotten about its usefulness, overshadowed by modern medicine and its tools, and are only just now recognizing its [original medicine's] many benefits, such as an emphasis on prevention." The category of alternative medicine was, in fact, only created when a dominant system was recognized in the 19th century (Bivins 2008:171). The creation of categories and hierarchy through language, where none existed previously, shows how powerful the dominant

biomedical system has been in labeling Chinese medical practices as untested and potentially unsafe treatment options, when it in fact has a long history of effective healing.

Another language and stigmatization barrier Nielsen has tackled is the name of the National Institute of Health's (NIH) National Center for Complementary and Alternative Medicine. This center oversees all NIH funded grants for research outside the dominant biomedical or pharmacological approaches to healthcare. Nielsen suggests they change the name to the "National Center for Integrative Medicine" feeling that the terms "complementary" and "alternative" marginalize or "ghettoize" the therapies categorized within them. Her suggestion is less dismissive of non-Western therapies, and does not imply that the therapies are any less effective than the currently accepted standard of care.

The concept of "standard of care" also fascinates Dr. Nielsen. "In some cases, such as the pain during pregnancy, there is no standard of care. There is no *one* recommendation, based on research, for doctors to follow and, in fact, acupuncture has been shown to be very effective in treating this pain, but is still considered an alternative." Dr. Nielsen encourages doctors and policy writers to consider what alternative medicine is actually alternative to. She asks them to consider, "What makes Western biomedicine the standard of care?" citing its relatively brief history, and how its effectiveness, like any medical treatment, is not guaranteed. Dr. Nielsen feels that language, and translating concepts correctly and effectively between two models of health, is imperative to better integration and ultimately better care for more patients.

The language surrounding "Chinese medicine" is also incredibly influential to patients and practitioners alike. Dr. Nielsen advocates for the adoption of the phrase Traditional East Asian Medicine, or TEAM, to describe practices of acupuncture, herbal therapy, Gua sha, cupping, and other techniques found in Chinese medicine. Changing the language surrounding

Chinese medicine may help decrease the tendency to think in a binary way, encouraging a more equal placement of both Western and East Asian medicine in academic and laymen's literature. Nielsen, responding to the often-heard observation that patients need to believe in Chinese medicine for it to work, believes language is the best way to instill confidence in a patient about their intended treatment regardless of which healing practice one is discussing. She comments, "If the language reflected the research [on acupuncture's effectiveness], many would believe in alternative therapies as much as pharmacological ones. Also, there is a divide between physical reality and what a patient expects across *all* medicine. Studies have shown [even] opioids are less effective when the patient does not know what it is."

Dr. Nielsen is an impressive woman who has experienced years of frustration with American medical institutions over their failure to view original therapies, such as Gua sha, with the same legitimacy as pharmacological approaches. Nielsen is *la mestiza*, holding a counterstance against the dominant culture's beliefs, but just as Anzaldúa encourages, she has not let this antagonism paralyze all attempts to reconcile her multiple identities. Nielsen effectively channeled her frustration into research, producing a vocabulary that can attempt to discuss Chinese medicine in biomedical terms. When presented with such challenges of outer authority, Anzaldúa encourages *mestizas*, like herself, to actively bridge the gap between both sides of their borderland.

At some point, on our way to a new consciousness, we will have to leave the opposite bank, the split between the two mortal combatants somehow healed so that we are on both shores at once and, at once, see through serpent and eagle eyes... The possibilities are numerous once we decide to act and not to react. [Anzaldúa 2007:100-101]

Anzaldúa suggest *las mestizas* should acknowledge what both sides of their border observe by looking through "serpent and eagle eyes:" each animal representing one side of her personal borderland. Acknowledgement of both can then inform any decision about how to

proceed afterwards. This is what Nielsen has accomplished by identifying her two different hats, or approaches to explaining Chinese medicine, and thoughtfully considering for what situations each is more appropriate. In order to explain Gua sha, Nielsen thinks carefully about her audience. She knows when to use the more traditional Chinese methods of explanation, drawing on visual and physical metaphors, and when to use highly specialized medical terms to gain respect in the clinical research field. Nielsen's two hats represent the practitioner explaining an original medicine diagnosis to their patient, and the researcher who is fighting to decrease the marginalization of these helpful practices.

II.

Dr. Smith¹⁷ is another practitioner of Chinese medicine who has found the wearing-two-hats analogy to be a helpful way to balance Western and Chinese approaches to the body. Dr. Smith is a Boston-based medical researcher and Tai chi instructor. He began practicing Tai chi as a teenager after a course in Eastern philosophy exposed him to the ideas of Chinese medicine. His introduction, "...was sort of a combination of my interest in the Eastern philosophy and the arts, and the principles of Tai chi...and it was the early [19]70s at Greenwich Village High School, and it all just fit together." Smith, an avid national and international free-style Frisbee player, found that practicing Tai chi had a positive impact on his athletic abilities, improving his focus, flexibility, fluidity and grace. Dr. Smith's interest in Chinese philosophy continued to shape his beliefs about the world around him, even as he studied evolutionary plant biology during his undergraduate and post-graduate education.

Dr. Smith uncovered many important parallels between his work in ecology and his personal interest in Chinese cosmology. He explains that while evolutionary plant biology

¹⁷ Pseudonym

specifically answers questions about the origins of photosynthesis, or how birch trees grow in different environments, “it really was [about] how an organism fits into a larger environment and the small processes that are always in flux.” Dr. Smith continued, explaining the connection to me as follows.

In many ways, all of the training that I had in ecology and systems biology both conceptual, [and] quantitative, all poised me to make this shift when I did, to study medicine, and [that] is what inspires my work now, and informs the questions I ask, thinking of the body as an ecosystem. Mind-body is just one pair of a dialectic, but if you unpack those you find the body is really a very complex ecosystem, much like the five-element theory in Chinese medicine, and there is a balance that is always in flux and always changing.

Dr. Smith found that his training in the scientific method was well suited to tackle his current work researching non-conventional medicines that do not fit into Western research models. He focuses his efforts on asking the right types of questions about tai chi, and other non-biomedical practices, so that the scientific method will produce helpful information.

From my perspective, the scientific method is a beautiful process, but it is not the only way of knowing something. It just depends on what your questions are. So, we will never be able to study tai chi like we will aspirin. Because with aspirin to some degree we have a really good sense of what is actually going on...what the physiological pathways we are trying to target are. And we can come up with some really good controls, like an identical sugar pill.

In tai chi, we don't really know what the active ingredients are, I think there are multiple, and we are not sure of all the ways someone exposed to tai chi training changes, with multiple systems all interacting. Therefore, we have to ask questions in different ways. But that doesn't mean we can't use science, and we can't use really good science. And it also doesn't mean that reductionism has no place. We might want to know exactly what happens in terms of connective tissue physiology or protein peptides because it informs one of the processes, but it's not an either or. It's how do you use methods that are available to match questions that you are trying to ask. [pause] And there are some questions you can't ask with the scientific method.

Dr. Smith is tackling one of the most challenging areas of integration between Chinese medicine and Western medicine. While it is revealing and helpful to research the bio-mechanical processes involved in Chinese medical practices, as Dr. Nielsen does, Dr. Smith changes the question to study effectiveness and patient satisfaction in a quantitative way. Measuring the impact of Tai chi, rather than the mechanism of it, results in an increase of

awareness and respect for the practice, as well as strong evidence to convince other doctors, health systems, and insurance companies of its positive impact.

Dr. Smith describes his job as inhabiting two different worlds, one as a Tai chi instructor and the other as a researcher and educator, but they often overlap. When asked whether or not he needed to work hard to convince students in his Tai chi class about the exercise's effectiveness, he explained that to develop "buy-in" he drew heavily on his experimental evidence gathered from his role as a researcher.

It's not [that the scientific research discerns] 'this works or it doesn't work' but because of my knowledge base and my different worlds...I use a lot of science when I teach...Something like connective tissue. There is a lot of evidence that I can bring to [the class]: talk about our studies and our findings, what the brain is doing...I offer that because I think meaning comes from that quick buy-in, and knowledge is power. And I am empowering them [students] to have a core buy-in. In many ways science and medical research, science from places like Harvard, replaces a lot of spiritual beliefs, so a couple good facts will mean a lot more than a traditional phrase. Together, when you try to elucidate a concept, and have someone have some kind of experience and then partially explain it in a way that crosses over into a different language and culture for them, that's very profound. And it creates a lot of buy-in.

Here, Dr. Smith combines the physical experience of Tai chi with the authority of scientifically produced facts in order to create an environment that is familiar to his students. Sagli found that Norwegian acupuncture students also enjoy the incorporation of "biomedically oriented research" into their training. Examples of such research included infrared photography showing warmth around point locations, or the existence of higher nerve supply at acupuncture points (Sagli 2010:320). Dr. Erica Lovett, the Maine-based family medicine doctor and medical acupuncturist, expressed a similar appreciation for the biomedical research that was incorporated into her medical acupuncture course.

"I just think its neat...Let's say you have a headache, but you treat the point in your toe for headache. If you look back at a functional MRI that place in your brain that is for...headaches lights up, but you are treating it in the toe. I think that it's interesting, and it makes it more convincing."

Presenting visual information observed with biomedical tools helps students produce a mental map of a system that remains invisible to the human eye, and allows them to make connections between biomedical sciences and Chinese medicine. These types of scientifically realized facts are important to students' overall understanding and "buy in".

Dr. Smith also presents his research to academic audiences that are much more skeptical than students choosing to attend acupuncture classes. He travels around the world speaking with doctors and hospital staff, from geriatric neurology departments to primary care physicians, about the benefits of Tai chi and its integration into Western medicine. He has recognized the importance of incorporating experiential learning into his presentation program so that his audience can connect with him, and their future patients, over the physical aspect of a practice that is "different from just going to the gym." These presentations require Dr. Smith to teach in a language that the doctors and staff can relate to. He explains his strategy as follows.

For the most part, there is a set of rules and language that we use, and...I engage my colleagues with that language and [I] bring a little bit of humor about how weird some of these things are.

Chinese classics will say things like 'Your mind leads qi and your qi moves your body.' You put that up and people are like, 'This is so weird.' But, if I then talk about the latest knowledge in the field of motor imagery... [such as] stroke rehabilitation patients who, when given a series of tasks that they look at, and they imagine grabbing a fork, wrapping their fingers around the fork, imagine moving the fork to poke the carrot, they imagine bringing the carrot to their mouth, they imagine putting the fork down, and they rehearse that without moving anything. Just in their mind, over and over and over again. Then you look at the part of the brain that regulates that motor control movement and over time [as the patient] keeps practicing and imagining it, it creates changes in the brain...So, if I say that my body practices are good because my intention is good, people will roll their eyes. But then if I show them evidence within their culture and language and framework it creates more buy-in.

Dr. Smith's presentation design incorporates a description of a Chinese medical concept (body moves qi) and an example of how it can relate to Western medicine. Sagli (2001) proposes that a similar two-pronged approach—involving information on the construction of these concepts *and* instruction on how to employ Chinese concepts within Western medicine—is helpful when speaking to professionals within a biomedical field about Chinese medicine.

Through years of practice, Dr. Smith has found examples from biomedical research to illustrate key Chinese medical beliefs, helping both him and his audience bridge the tremendous understanding gap between the two practices. Dr. Smith continues with an explanation of another explanatory tool.

I'm very clear when I lecture that I am not an advocate. I am not here to show you that it is good, I am here to present evidence so you [doctors, audience] can make informed decisions for your patients. That's very different [from being an advocate.] And I often go places [topics in my presentation] where there is no evidence, or we don't know, and I'll say 'This research really sucks, it is done very poorly, does not control for bias, etc.' And that brings credibility too. Not being an advocate, and pointing out where there are significant limitations in research.

Dr. Smith recognizes that it is very difficult for a biomedically-inclined audience not only to understand Chinese medical practices, but also accept their legitimacy, when information is not presented in the language they expect it to be portrayed in. In these instances, Dr. Smith has found both humility and the ability to recognize a person's desire for autonomy are both tools that can support the transfer of difficult knowledge, making him a better educator. In recognizing the flaws in research on Chinese medicine, Dr. Smith continually challenges his own assumptions about both practices, and claims no authority except that the right questions should continue to be asked.

Dr. Smith and Dr. Nielsen, both academic researchers and Chinese medical practitioners, approach their multiple work environments and cultures through thoughtful separation and conscious translation choices based on their audience. Pritzker suggests the act of translating Chinese medical concepts allows translators and educators, like Nielsen and Smith, to share their, "linguistic, cultural or scholarly expertise, to build a case for interpreting evidence in specific ways, and to demonstrate (and sometimes learn) what language is and what language does" (Pritzker 2012:346). Nielsen and Smith both demonstrate a developed understanding of the different languages and cultural beliefs of their audience, and use this knowledge to advocate

on behalf of the effectiveness and legitimacy of Chinese medicine. They have found it beneficial for their own understanding, and for the acceptance of Chinese medicine into American medical institutions, to compartmentalize the two realms with different linguistic styles.

It may be more than coincidence that half of the practitioners I spoke with described their practice with the metaphor of wearing two hats. China's barefoot doctors were similarly described as "walking on two legs," illustrating their ability to use both Chinese and Western medicine when each was appropriate. Created through an initiative led by Mao Zedong in the mid-1960s, "barefoot doctors" were health workers trained in a combination of Traditional Chinese Medicine and Western medicine in order to provide inexpensive healthcare to China's rural population. Worsley explains the barefoot doctor's dual abilities, writing:

...in the famous Barefoot Doctor's Manual of Hunan, the medical assistant is constantly enjoined to treat patients in the following sequence: first, via the use of acupuncture; then by using traditional materia medica [a collection of Classical Chinese medical guidelines]; then Western drugs; and, finally, as a last resort, referral of the patient to a hospital. [Worsley 1982:340]

For the barefoot doctors, a limited knowledge of both medical systems allowed them to offer more efficient and less expensive care to a large, underserved population. While Dr. Smith and Dr. Nielsen are not providing care to this type of rural population, there is a growing concern over the rising cost of healthcare in the United States. The unique ability of dual practitioners to provide a patient with the less invasive and less expensive treatment options available in Chinese medicine, as well as discern when Western medicine is best, may help decrease the cost of American healthcare. Though as discussed in Chapter 2, the cost-effectiveness of integrative medicine is still being researched.

As Dr. Smith described to me early on in our conversation, he physically and mentally separates his two roles in order to better serve both.

So I wear two hats. I can wear the scientist hat at the Harvard Medical School then I go through a phone booth at the end of the morning, or day, and I change clothes and conceptual

frameworks and I just go teach [Tai chi] And I'll ask people [the students] to suspend judgments. I'll have people take me through their experience, there may not be evidence for it, but it's a different set of rules that I use in teaching... [sigh]... there is trial and error, [but] the rules are a little different [from scientific research]. And the goals are different.

This “two hat” method has worked well for Dr. Smith and Dr. Nielsen to understand and integrate their identities as both researchers and practitioners, helping them respond to the expectations for legitimacy presented by American medical culture. Other practitioners of Chinese medicine are uncomfortable accepting that biomedicine is not capable of explaining all aspects of another medical tradition, and attempt to fully explain Chinese medicine using biomedical language. As it turns out, ignoring those ideas that can not yet be described in biomedical language makes it impossible to effectively practice.

As seen in Dr. Nielsen's written work, the biomedical discussion of Chinese medical practices communicates very little about the importance of continuous flow that the Chinese explanatory model did so well. Western medicine hopes to focus in on the specific electric charges or chemical cascades that lead to the healing benefits of acupuncture, but by reducing the process into its individual parts, it ignores the more difficult phenomenon of how they all fit together. Dr. Hobbs, a family medicine physician, acupuncturist, and assistant professor of community and family medicine at Dartmouth's Geisel School of Medicine, explores the failures of only using biomedical research to explain and teach acupuncture practice effectively.

When I first went to China, I wanted to figure out how this stuff worked from a Western standpoint. There have been huge amounts of progress in the last ten years on understanding what happens when you needle a point. And we are pretty close to being able to describe underlying concepts with Western medicine, but this does not tell you how to assess and treat patients. With just that model you would have no idea how to treat patients. In order to use acupuncture as a treatment modality, you have to draw on those classical concepts, which are metaphysical. The answer is that it [Chinese medical practice] is both biophysics and metaphysics... it really depends on how you look at things, and what kind of observation you are making. The kind of observations that point to underlying happenings are across the board, from biology to cosmology.

In this passage Dr. Hobbs critiques a natural temptation to forgo classical Chinese medical concepts in favor of familiar biomedical evidence and explanations. He suggests that in fact a range of observations, from biological to cosmological, must be considered in order to effectively explain, understand, and most importantly practice Chinese medicine. Dr. Hobbs will explore this concept more in his upcoming article, “Acupuncture: Biophysics or Metaphysics?” Reaching a point where a practitioner can accept two simultaneous diagnostic and treatment realities is not easy, and the next section will explore the initial separation and eventual coexistence of the two medical systems employed by dual practitioners.

III.

Melissa, “Missy,” Coito, a twenty-something digital strategy consultant, holds a Bachelor’s degree in neuroscience from a small New England college and attended two and a half years of a three-year acupuncture masters program. Missy graduated from college interested in substance abuse treatment. An internship with a successful acupuncturist who treated many cancer patients exposed her to the positive effects of acupuncture, both in how the patients felt and their improved T-cell counts, and encouraged a continued curiosity in the practice. She discovered extensive research was being done in China on acupuncture’s effectiveness in treating addiction, so she decided to enroll in a three-year masters program to learn about acupuncture and Chinese medical practices.

Missy chose to pursue the rigorous neuroscience major at her college because she was left unsatisfied by her psychology courses. She wanted to know what was occurring physiologically and biomechanically “behind” the actions, emotions, intentions and ideas studied by psychology. This desire to understand what was happening “under the surface” is likely a direct result of the culture she grew up in. The idea that a closer look, a clearer picture, or a

better understanding of individual parts will lead to an overall knowledge of what healthy and unhealthy looks like in the body, are all fundamental to the Western approach to healing. The same passion to understand the brain and the body that led Missy to neuroscience, and to pursuing a degree in acupuncture, was also what presented her largest challenge when attempting to study the ideas and practices of acupuncture.

Missy struggled throughout acupuncture school with understanding ideas and concepts that she was not able to actually experience herself. She “never felt the energy” that her teachers spoke about, and would leave class confused. Given her intense background in neuroscience, where more studying led to greater academic success, she struggled to gain a more instinctive understanding of Chinese medicine. She also struggled to let go of her biomedical frameworks when trying to understand Chinese medicine’s systematic understanding of the body. She explained,

The philosophy is overwhelming to learn, they [the teachings and her instructors] throw out everything you know about the body and you are learning it from scratch in a different way. Nothing relates in any way to what you thought you knew, even if something seems familiar, you realize it is completely different.

Missy found herself constantly comparing the two explanatory models, trying to find ways that they definitively connected, and was left disappointed when these connections failed to appear. Here we see Missy experiencing what Anzaldúa describes as, “*un choque*, a cultural collision.”

Anzaldúa elaborates,

Like all people, we [*la mestiza*] perceive the version of reality that our culture communicates. Like others having or living in more than one culture, we get multiple, often opposing messages. The coming together of two self-consistent but habitually incompatible frames of reference causes *un choque*, a cultural collision. [Anzaldúa 2007:100]

Borderlands unnaturally separate a person, highlighting two distinct identities within a person when a human being can only ever truly be some organic combination of the two.

Recognizing the two versions of reality presented by each culture that *la mestiza* belongs to can

cause intense confusion over which is right, and how either can explain the combination that *la mestiza* represents. Missy could have found this collision, *un choque*, to be paralyzing in her continued study of Chinese medicine, but instead drew inspiration from a past college professor of Japanese philosophy to help her. She elaborated,

This professor explained how you have to think of the two philosophies [in this case Japanese and Western thought as a whole, not necessarily just medicine] as practices that arose from two totally different ways of thinking. They arose independently. One isn't right or wrong, and both developed organically on their own, with no impact from the other during most of this developmental time.

Missy found that for her to continue studying Chinese medicine she had to release any concerns over how one frame of reference fit into another, and instead learn it as if she no longer contained her background in biomedicine. She noticed that other classmates with previous academic training in biomedicine, such as dentists or doctors, often had a similarly hard time with the type of learning that was expected of them when studying acupuncture. She believes, “It was actually easier for those who were not surrounded by Western medicine, like Reiki [energy manipulation therapists] or massage therapists, to learn to study in a more demanding way, rather than those with scientific backgrounds unlearning what they knew before.” Those less saturated in biomedicine had an easier time associating what was being told to them, such as the location of a certain meridian, with a physiological reality. This training may have been the first time some of these biomedically inclined individuals had ever questioned what was true about the body, how more than one explanation could have equal value, and that neither explanation was more right than the other.

Realizing that two completely different approaches to studying and understanding the body could be equally valid was, according to Missy, an integral part of her education in Chinese medicine. She slowly came to understand that just because one is right, does not mean the other is wrong. Anzaldúa observes a similar “tolerance for ambiguity” that transforms and strengthens

la mestiza. Anzaldúa explains, “She [*la mestiza*] is willing to share, to make herself vulnerable to foreign ways of seeing and thinking. She surrenders all notions of safety, of the familiar. Deconstruct, construct” (Anzaldúa 2007:104). To successfully navigate the challenging cultural collisions inevitable on any borderland, one must surrender previous ways of thinking in order to understand the new one. Only after learning both can one then construct a mature understanding of their dual identity, and develop an ability to switch between the two.

Dr. Robert Heffron, a clinical assistant professor of family medicine at Brown University’s Alpert Medical School, feels that the students in his overview course of Complementary and Alternative Medicine, titled Integrative Medicine: From Alternative to Mainstream, react strongly to these cultural collisions as well.

When they [his students] get the idea of reductionism versus more synthetic, integrative ways of thinking... And when they realize...science is based on reductionism, and that’s not the only way to put something together. I think that gets them excited. It’s like they realize, “Gee, if you think about it in a different way you come up with other solutions.”

Once students are able to surrender any pre-conceived notions about physiological truth being a singular phenomenon, it becomes far easier for them to continue their exploration and practice of Chinese medicine. Reflecting on her experience studying both neuroscience and Chinese medicine, Missy felt that Chinese medicine actually makes more sense to her, and provides a more complete idea of the body and its health, but this did not make her think Western medicine was wrong. In fact, she was confident that if she were to ever develop a serious disease she would want to consult both.

A fascinating perspective on the fundamental challenge of bridging Western and Chinese medical knowledge comes from Dr. Richard Hobbs, the family medicine physician, acupuncturist, and assistant professor of community and family medicine mentioned earlier. He has been a family medicine doctor for thirty-nine years, but in 2008 transitioned to only

practicing acupuncture although he remains very involved in Dartmouth's integrative medicine residency program. Dr. Hobbs was exposed to Chinese medicine by pure chance, having been assigned to host Dr. Steven Aung, of Alberta Canada, at the 2004 American Academy of Physicians Conference. Dr. Aung is involved in academic medicine at the University of Alberta, and is a family medicine physician as well as a sixth generation Chinese medicine doctor. The two became fast friends, and Dr. Hobbs went on to study Chinese medicine with Dr. Aung in Alberta, as well as advance his education further in both Shanghai and Beijing. Dr. Hobbs now speaks some Chinese, and teaches Chinese medicine to medical residents in the Integrative Medicine program at Dartmouth.

Dr. Hobbs has acquired an incredible amount of knowledge on the history, philosophy, and practice of Chinese medicine in the ten years he has been studying it. He, like others, first became interested because of the dramatic results he witnessed when watching demonstrations, and the desire to offer non-invasive treatments that could do no harm to his patients. While he does not require a biomedical explanation of Chinese in order to practice, he is curious about the concept. In order for him to understand their simultaneous existence, he draws on his seven-year background in physics, before he became a physician, relating aspects of his dual practice to quantum theory.

Superposition principle says that if you have a quantum system, it exists in all possible states simultaneously until you make an observation. For example light can be both a particle and wave until you observe it as one or the other. That's how it is between Western medicine and Chinese medicine. If I want to think about a problem in terms of Western medicine, that's the wave. If I want to think of it in terms of Chinese medicine, I look at it from that point of view [and I see it as a particle.] It's wicked hard to connect the dots between the two, but you can go back and forth. Switching between the two is possible, but they don't coexist simultaneously.

While he does not believe that Chinese medicine is actually a quantized system, he does find this to be a useful way to view the differences between them, and the existence of both realities at once. This is not dissimilar to the idea of "wearing two hats", discussed earlier in this chapter.

Here, Dr. Hobbs could be described as owning two different pairs of glasses, one representing the Western view and the other representing the Chinese view. When Dr. Hobbs views a patient within a certain lens, their diagnosis and treatment will follow a course within that frame of reference.

While switching between the two frames, direct translation of a diagnosis from one to the other is nearly impossible¹⁸. Dr. Hobbs shared the following example illustrating a personal challenge translating Chinese medical ideas.

Chinese medicine has no diagnoses, just patterns of disharmony. No such thing as gastro-esophageal reflux disease [acid reflux]. If you translate this to Chinese Medicine you may be talking about a range of five or six patterns of disharmony. The challenge is to figure out which pattern it is. In Chinese Medicine one symptom complex [observation] could be many different patterns of disharmony, and the doctor must adjust the treatment accordingly. [Chinese Medicine has] No disease, no diagnosis, nothing like asthma, for example. That said, as a person who practices family medicine, I always have to have my Western Medicine hat handy, and I have to analyze whether this problem is best addressed from a Western or Chinese point of view, or both. I work closely with other doctors, and I'm sort of like a bridge between those two ways of knowing.

Reminiscent of Moyers and Eisenberg's discussion of matching nerve charts to meridian lines, Dr. Hobbs, Dr. Heffron's students, and Missy all expressed the challenge of describing one modality in the language of another. While this cultural collision initially creates tension within the practitioner, learning Chinese medical concepts actually expands a student's beliefs in what "constitutes as a reliable picture of reality" (Sagli 2001:223). When the practitioners are able to accept a certain amount of ambiguity in their beliefs, they become better prepared to successfully navigate their borderland.

Although Chinese medicine continually challenged and changed what Missy believed about the body, she found that the way she eventually came to understand acupuncture was

¹⁸ Pritzker and Sagli both illustrate this claim in depth, citing challenges such as the Chinese medical vocabulary having no standard English equivalents and the way a physical transfer of knowledge while learning Chinese medicine will result in a unique personal understanding of a given concept for each individual practitioner (Pritzker 2012, 2014; Sagli 2001).

through experience. A combination of physical experiences within her own body, the affirming experience of observing patients undergoing treatment, and witnessing their improved situation afterwards all convinced her of acupuncture's effectiveness, even if it did not help her to explain why it was happening. Ultimately, Missy decided not to complete her final semester of her three-year acupuncture program because she did not feel she would make an effective acupuncturist. As she explained,

Practicing effective Western medicine is 90% knowledge and 10% an art, but in Eastern medicine this percentage [that is an art] is higher. It [Eastern medicine] can be equally as effective [as Western medicine], but there is a lot more [responsibility] on the practitioner to execute it correctly. A great practitioner cannot only just know the information; they have to feel the energy as well.

Even though she never practiced acupuncture, Missy's experiential education provided her with evidence for Chinese medicine's effectiveness and its ability to co-exist, whether explained or not, with biomedical concepts of the body. The idea of experience, especially a physical one, is another common strategy used by practitioners of Chinese medicine to explain, understand, and combine Chinese practices within a biomedically-saturated mind.

III.

Physical experience is a powerful tool for understanding any complex idea that cannot be explained with the language available. Physical experiences can pass directly from a patient's body to the practitioner, such as when students learn to identify different descriptions for pulse diagnosis, or it can be motivated by an instructor's voice, such as in a Tai chi class. Dr. Heffron, observing his students' limited exposure to non-Western medicine, motivates them to have a physical experience by incorporating it into a course-long assignment. He finds that undergoing a physical experience related to non-Western medicine not only provides his students with examples of its efficacy, but also allows them to begin to shape their own strategies for explaining the experience to others.

Everyone in the class is required to make some kind of plan at the beginning of the semester to make some kind of behavioral change. Whether it's changing their diet, or starting to meditate, or starting yoga, journal writing, or whatever it is. And then they have to do it for the semester, and they have to write about it. For the people who pick something that really has an impact, like if you become a vegetarian... after 4 to 6 weeks you really feel differently, [and] realize the change... That is an experience they won't forget. They say, 'Wow, if I feel this differently, then there is something to all of this [Integrative medicine], and maybe this is really a better way to live. *I feel better.*' I help them [students] think of something to do that might really fit them, and help them change some things they want to change. And so I think that experience can be pretty powerful for some of them.

Through developing this course, Dr. Heffron has found that exposing his students to the physical power of changing their lifestyle makes them far more open to thinking of ways in which they can encourage their own patients to make behavioral changes. Chinese medicine, besides involving different forms of treatment, also differs from Western medicine in the role of the patient. As previously mentioned in Chapter 2, patients who seek alternative medicine treatments are often more willing to make lifestyle changes and take more responsibility to heal themselves because they are in a more desperate situation. The Chinese medical doctor plays a much more educational and supportive role than what is conventionally expected of the biomedical doctor, and Dr. Heffron hopes this approach will gradually be adopted by the American medical system.

Having a physical experience while learning Chinese medicine is not only helpful in conveying the efficacy of the treatment philosophy, but it is also necessary for the physical transfer of knowledge about a practice that cannot be described with the English language (Pritzker 2012, 2014). Dr. Heffron, while discussing his own Chinese medical education, described how challenging it was for him to understand pulse diagnosis in his instructor's original terms. His teacher would describe a certain pulse as, "a pearl rolling under the finger in a porcelain bowl." This metaphor was not very helpful, but Dr. Heffron could feel the patient's

pulse that his teacher was describing and create his own terms to define it in a way that made sense given his unique background and cultural knowledge.

Pritzker observes a similar translational experience among students attending a California acupuncture school. She describes how students' repeated physical experiences of diagnosing others with their own hands enabled them to "appropriate" the Chinese descriptions of their textbooks into their own understanding of the practice (Pritzker 2010:397). Pritzker exposes the ambiguity of many academic textbook descriptions of different pulses, highlighting the same confusing image of pearls in a bowl as Dr. Heffron to describe a slippery pulse, as well as a "bowstring pulse" similar to the feeling of a tight bow right before it shoots the arrow (Li 1981 in Pritzker 2010:401). The pulse diagnosis teacher Pritzker observes encourages her students to create their own descriptions of the pulse they are feeling, and translate the physical experience however they will best understand it.

Barb [teacher]: Don't worry about the words in the book... We're not talking about wiry, we're not talking about slippery, we're not talking about deep, we're not talking about superficial... What we're talking about is how it feels like Tigger, bouncing along. ((makes rapid bouncing motion with both hands)) Feels like water bubbling up out of a stream. ((lifts one cupped hand up in front of her as she walks)) Feels like a guitar string. It feels like a, ah, an angry bee. Just get a description of what it is you're feeling. [Pritzker 2010: 403]

In her discussion of this technique, Pritzker highlights the importance of both a student's physical and cultural positioning to understanding the "esoteric description in the book" (Pritzker 2010:403). This helps shape Pritzker's theory of "living translation", where physical experience, combined with written and verbal language, helps to translate complex ideas from one medical modality to another in a unique way for each student. For many of the practitioners I spoke with, this type of physical experience was crucial to their acceptance and understanding of Chinese medicine as a physical reality. It helped shape a very personal and unique understanding of Chinese medicine in order to overcome the challenge of understanding it.

Sarah¹⁹, an acupuncturist in Maine, was trained to find acupuncture points through similarly physical experiences, feeling the patients' arms or legs to find clues as to where their unique points are located. Since the proportions of every individual's body differ from one another an acupuncturist cannot rely on a standardized measurement tool, like a ruler, to locate acupuncture points on the body. Instead, Chinese medicine uses a relational measurement of one "sun" (pronounced *soon*) to determine the location of points on the body. For example, the distance between where the head of the fibula meets the knee and where its base meets the ankle (essentially the length of the shin) can be equally divided into fifteen "suns". On average, a "sun" is roughly an inch, but it may differ depending on the proportions of an individual. Sarah learned to locate a commonly used point on the stomach meridian, located eight "suns" down the line between knee and ankle, by estimating the approximate mid-point of the shin and then tracing her finger to the left the width of her index and middle finger until she feels the point. Locating acupuncture points in this way combines both precise measurements and a physical knowledge of what a point should feel like.

An acupuncturist learns to identify what a point feels like based on physiological clues. Sarah told me they often occur in divots, near large bones. For instance, where your ulna (forearm bone) meets your elbow there is a sharp protruding bump. If you trace down from this location, slightly diagonally, you reach a divot where an acupuncture point is located. Another place is between the two tendons close to the wrist on the underside of one's arm. While explaining this, Sarah guided my forearm face up in front of her, and gently pressed her pointer and index finger into my arm, approximately two inches down from my wrist crease. She continued her explanation, saying how there is a point located about two-and-a-half "suns" down

¹⁹ Pseudonym

from the wrist crease. This point can act as a resource for the acupuncturist to understand what an individual's "sun" distance will be, and gives a general location for the acupuncturist to then feel for the point.

The ability to feel for points, like any complex skill, does not develop all at once, but rather takes years of practice. Sarah recalled when her teacher first placed her fingers on the point between the wrist tendons, the teacher asked, "See, don't you feel it?" Sarah, frustrated and embarrassed responded, "I don't feel anything. I don't know what I am supposed to feel." She asked her friends after class what they had felt when guided to the point, and many of them were just as confused as she was. Sarah believes that specific measurements, such as counting "suns", is much more important when one is new at the practice. Over time she has developed a familiarity with the body, and is able to locate the points through touch without measuring as carefully. Here, Sarah illustrates how a practitioner develops a "spatial meaning" of the invisible system of meridians and acupuncture points through the aid of measurement tools and physical touch (Sagli 2010:320). Interestingly, Sarah could not recount a specific moment when she stopped measuring, but rather understood it as a gradual progression of skill.

As Sarah discussed the location of acupuncture points with me, it struck me how seamlessly she combined a biomedical understanding of human anatomy and physiology with the Chinese names of the points. As she motioned to her lower leg, illustrating the Chinese term "sun", she locates its two endpoints as "where the Tibia meets the knee joint and where it meets the ankle." She later pointed to my fingers, sharing with me that the, "distance between metacarpals on the hand are good estimates of one sun." Here she shows a clear understanding of Western anatomy, but is able to view this knowledge as merely one of many potential

organizations. Sarah knows that other perspectives on the body exist, and by weaving Chinese and Western concepts together into her description, she effectively communicates this plurality.

This same dual understanding becomes even more apparent when she discusses a patient's infertility treatment with me. She walks me through the patient's chart, which consists of approximately ten sheets of plain white paper. On it are hand written notes tracking the date of her patient's visits, and observations about how the patient is feeling. Each date never has more than a few lines, and they rarely form full sentences. Sarah describes how irregular her patient's menstrual cycles had been when she first began acupuncture treatment, but the treatment has helped regulate her hormones to the point where she is ovulating consistently enough to try an Inter-Uterine Insemination procedure. Sarah speaks comfortably about the various infertility and artificial insemination procedures practiced in Western medicine. She also demonstrates an understanding of how acupuncture can help regulate and maintain a healthy system so that these treatments are most successful, appearing to combine the practices seamlessly.

When asked how she gained this apparent comfort with Western medical knowledge, Sarah referred to her four semesters of Western physiology and pharmacology courses in acupuncture school. This not only provided her with important information about how to switch between both medical modalities, but also helps her from potentially harming patients by combining certain pharmaceutical and acupuncture treatments. For instance, she knows that when a patient tells her they are taking Plavix, they have heart issues and she should be mindful of this in her treatment. In particular, the only pharmaceuticals Sarah has to be wary of are blood thinners, since they may cause the patient to be more likely to bleed when a needle is inserted. Sarah's understanding of Western medical treatments also comes from extra research when

presented with a particular case, and each new patient has contributed to her depth of knowledge within this subject. She was adamant that these courses in no way prepare her to practice any Western medicine, but they do help keep her informed about her patients.

Sarah, like many of the American practitioners of Chinese medicine I spoke to, found the combination of physical touch and specific measurement tools to be a useful part of her training and eventual ability to practice acupuncture, finding it difficult to identify just one experience that enabled her to understand Chinese medicine and its approach to healing. Pritzker (2010) and Sagli (2010), both observe how acupuncture taught in biomedically dominated cultures draws on many different teaching techniques to help students create their own understanding of Chinese medical concepts. Besides the physical transfer of knowledge, such as feeling the acupuncture point located by a teacher, or understanding the physical difference between two different types of pulses, there is a verbal aspect to the experiential learning of Chinese medicine.

I found studying the metaphors and spoken visualizations that practitioners use to describe Chinese medical concepts to patients illustrates this verbal aspect of experiential learning well. Similar to my earlier discussion of Dr. Nielsen's "stagnant water" metaphor to describe an unhealthy blockage of qi, and Pritzker's (2010) observations of Barb, the pulse diagnosis teacher who encouraged her students to connect their physical experience to culturally relevant descriptions, it is clear practitioners draw on a wide assortment of images, metaphors, and visualizations to encourage understanding and create a physical experience within their patients.

Observations from a Tai chi class conducted specifically for patients with Parkinson's disease may illustrate these metaphors more clearly. The class took place in a conference room at the satellite location of the Brigham and Women's hospital, also where the Osher clinical

center is located. Chairs were set up in an oval around the room, with the instructor, Stanwood (Stan) Chang, at one end and sixteen students surrounding him. The students' exhibited the shaking and clenching, common to Parkinson's patients, to varying degrees.

The class focused on the repetition of simple movements, with Stan encouraging students to relax into whatever form he was demonstrating. This combination of structure, movement *and* relaxation makes Tai chi unique among other sports or athletic activities. One such movement involved the slow transfer of weight between the left foot, placed in front, and the right foot in back. While shifting weight, students were asked to observe how every muscle and bone felt, and where they experienced any tight spots in the spectrum of movement. Students were told to massage their feet on the floor while they rocked, and focus their attention on how each location and change felt. I participated in the class, and as we rocked back and forth, Stan guided our movement, "and 1...bring it forward...and 2...bring it back...and 1...and 2..." Each count included a long pause in between, encouraging students to move slowly and remain conscious of each sensation within the fluid movement.

As students rocked back and forth, Stan shaped and informed their experience by asking them to imagine their heels were like molasses. This metaphor evoked the slow, consistent, and powerful flow of a dense liquid, and helped the students achieve even more control within their practice. While describing the repeated motion of pulling one's hand horizontally across the air space in front of their chest, Stan asked his students to imagine their hand was a large paintbrush, and they were sweeping across a canvas in front of them. This helped students maintain smooth and intentional movement through realistically empty space. Later, Stan asked his students to bring their hands up in front of the body, slowly reaching up over their head and then drawing the hands back down, palms facing in, tracing the body (without contact) down to the legs and

toes. As the students repeated this movement, Stan introduced the idea of cultivating one's energy or qi, and then drawing that back down over the body to send it where it was needed. He then asked his students to imagine their fingertips were like electrical plugs, reaching to fit into the sockets in the sky, and then drawing on that energy to refresh the body by washing it with the newly collected energy.

These modern adaptations of classical Qi Gong practices are part of what Stanwood calls "Clinical Tai Chi". Clinical Tai chi, which this class would be classified as, helps students understand and experience the benefits sooner. In clinical Tai chi, a teacher walks the students through simple base movements without the added complexity of perfect form. This allows the teacher to transmit the qualities of Tai chi, in a distilled form, quickly to the patient. In contrast, traditional Tai chi is a much more independent journey, filled with poetic ideas of the six harmonies, the spirit, and other esoteric descriptions. Stan described these concepts as a bit fanciful, worried they would not translate to someone who is sick and looking for a way to feel better quickly. Traditionally Tai chi had no teacher, and the benefits were discovered through independent study, "up on a mountain somewhere", but this is not very practical or appealing to today's students. Stan explains, "Essentially, clinical Tai chi has been adapted to Western medicine's expectations of efficiency and measurable results. It distills much of the philosophical parts in order to be more quickly understood by students."

Visual metaphors abound in the explanation and understanding of Chinese medicine imparted to those who are unfamiliar with its fundamental concepts. Water, streams, and a cleansing force evoke the fluidity and constant movement that is necessary to understand the non-static conception of the body, and the movement of invisible qi. Sarah, the acupuncturist,

found employing other organic images like these useful when explaining difficult concepts to patients, medical students interested in her work, and myself.

...*Even* doctors who have been doing this for years still...[wonder], ‘Why is it that this [acupuncture] works for some people and not for others. We are all different. And that’s where the beauty of TCM [Traditional Chinese Medicine] comes in... When you’re coming for, say...headaches, there are like twenty different patterns that can cause headaches. And it’s the pattern that can cause the issue, it’s not the headache...it’s a symptom and not the cause. So when you treat the cause, the symptom gets better. It’s...what they call in TCM the ‘root and the branch’. If you just address [only] the branches, and don’t address the root, the problems will keep coming back.

Many, if not all of my conversations about Chinese medicine have involved similar use of visual metaphors. Explaining unfamiliar concepts through images and physical experience eases some of the tension that builds when forced to abandon singular ideas of human anatomy, health, and healing that one naturally develops in a culture dominated by Western medicine. These visualizations have allowed me to feel an energy I could identify as qi, and develop a deep appreciation for the ways in which it travels through pathways defined by both meridians and supported by connective tissue. Physical experience, biomedically-oriented research, and culturally familiar descriptions have encouraged me to concede that while direct connection between these two modalities is impossible, both can still make sense.

IV.

Negotiating a borderland inspires various adaptive strategies to help combat the intense confusion and discomfort resulting from the reconciliation of multiple identities and beliefs. Along the border between Western and Chinese medicine, the challenge of communicating equivalent translations between Chinese medical concepts and biomedical terms motivates practitioners, students and patients to utilize multiple methods of understanding at once. These multiple strategies help clarify ideas surrounding unfamiliar medical beliefs, and encourage both discovery and comprehension of the elusive, “true” nature of the world around them.

For example, if a student or patient can feel back pain decrease when an acupuncture needle is inserted into their leg, they gain peripheral evidence that connections exist between the pain in their back and the acupuncture point on their leg, even if imaging technology cannot demonstrate it. If a student is learning pulse diagnosis and is told the patient's pulse is slippery, they may find another word to describe it to themselves, but they still feel the same physical reality as their instructor and can subsequently connect that to a proper diagnosis. Understanding the characteristics surrounding an invisible or elusive concept will eventually outline the unknown itself, helping to confirm its existence for those wishing to locate it. Observing Figure 3.1, readers can easily develop an understanding of the shape and characteristics of each of the three dark triangles. These observations enable readers to subsequently discern characteristics of the white triangle in the middle, which would be invisible without the surrounding triangles.

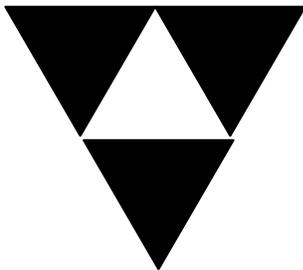


Fig. 3.1

Pritzker observed a similar strategy in the explanation of untranslatable Chinese words. She describes how one Chinese medicine teacher, Dr. Liu, attempts to illustrate the meaning of yin, “by explaining yin in terms of a series of neighboring Chinese medical concepts—including 痰 *tán* ‘phlegm’ and 水肿 *shuǐ zhǒng* ‘edema’—and differentiating it from these conditions by saying that it lies somewhere “between” the two” (Pritzker 2012:352). As seen here, communicating what a concept means is accomplished through, “...multiple explanations of the character, multiple explanations of neighboring concepts, and multiple suggestions of English

equivalents, none of which prove to be completely satisfying” (Pritzker 2012:354). This helps students arrive at their own understanding of Chinese medicine based on a number of suggestive but indirect explanations, avoiding the potential paralysis of searching for a directly equivalent translation.

Research along this borderland produces a greater understanding of how *la mestiza* navigates and overcomes the challenge of understanding and accepting Chinese medical practices that do not align with their previously held Western biomedical beliefs. Identifying successful adaptive strategies may also allow for more effective medicine on the institutional level, applying these personal methods to the larger challenges of integrating Chinese medicine into American medical systems. Practical considerations to greater integration might include the challenge of making Chinese medicine more visible to those who would not actively look for it. Conceptual considerations include the challenge of effectively designing research studies to measure cost-effectiveness and clinical efficacy of non-biomedical practices. The experiences of *la mestiza* could also contribute to smarter education, one that encourages students, physicians, and patients to have a physical experience confirming the legitimacy of Chinese medicine. This will more effectively increase both physician and patient familiarity towards important philosophical and practical improvements to the American medical system that are based in the ideas of Chinese medicine.

Conclusion:

The Borderland Practitioner's Contribution to American Medical Institutions

Having now observed the landscape and inhabitants of the borderland that exists between Chinese and Western medicine, both from a macro perspective of the institutions at play, and a closer look at the practitioners who spend their life navigating this contested space, important connections between the two can be recognized in order to inform future integration efforts. American organizations that oversee the professional practice of Chinese medicine in the United States, like the National Certification Commission of Acupuncture and Oriental Medicine, require practitioners to have a significant knowledge of biomedicine in order to gain certification. This requirement ensures that practitioners understand and live in both worlds, occupying a border zone between two established medical systems.

American practitioners of Chinese medicine exhibit many similarities with Anzaldúa's *la mestiza*, displaying initial distress towards reconciling their two identities, and subsequently developing their ability to navigate between the two sides successfully. Some may feel that requiring Chinese medical providers to understand biomedical concepts creates an unnecessary borderland, creating unfair tension for the practitioner. While it may be conceptually easier to maintain distinct separation between the two medical practices, it is irrational to assume that those practicing within the American healthcare system could avoid Western medical beliefs. When learning or practicing Chinese medicine, the practitioners cannot fully release the cultural norms that surround them. This borderland then is created by the unavoidable dominance of Western medicine in the United States, but strengthened by specific institutional requirements.

The borderland is a place of ambiguity and uncertainty, where the physical dividing lines and its inhabitants are "... in a constant state of transition" (Anzadúa 2007:25, Alvarez 1995:448). Living or working on any borderland, physical or conceptual, can create doubt and inspire questions as to the continued tension between both sides. Alvarez suggests that the study of borderlands exposes us to the "common irregularity expressed in daily life, the changes and differences of human existence, and the hierarchical tendencies in daily power struggles" (Alvarez 1995:462). Borderlands illuminate those aspects of human knowledge that cannot be easily reconciled, revealing the subsequent organization of this knowledge into a hierarchy of "truth" that helps humans determine one consistent reality. Applying this lens to medical borderlands allows us to consider the organization of the American medical system, and how Western biomedicine came to dominate it.

The borderland bestows a double vision on those who occupy it. Such duality allows inhabitants to present an identity that is best suited for each situation that arises, but it also inspires profound critique of the entrenched institutionalized system on both sides of the border. Given the difficulty of explaining, teaching, and understanding Chinese medicine in biomedical terms, the tension on this borderland may never be totally resolved. So, the question must be posed not as "What is *really* (biomedically) going on when an acupuncture needle is placed in the skin" but instead, "How can this permanently unresolved tension between biomedicine and Chinese medicine inform a more relativistic and complete approach to healthcare?" What can the experiences on this borderland teach us about weaknesses within our current medical system?

Applying these questions to my own observations of the tension between Chinese and biomedicine, how can the three broad strategies identified in the personal integration of Chinese medicine help guide future attempts at institutional integration? While this thesis originated in

my own difficulty understanding Chinese medical ideas, I soon became interested in the potential application of my research to improve a recognizably problematic American healthcare system. I incorporated this into my interviews, asking, “What, in your opinion, have you found to be the most beneficial aspect of Chinese medicine? How do you see these being integrated into Western medical practices?” The following discussion about the future of integrative medicine includes both my own analysis based on observed trends of how practitioners were integrating the two systems on a personal level, as well as some suggestions offered by practitioners.

I.

The first trend I discussed was the metaphor of “wearing-two-hats,” describing both the use of different linguistic choices depending on a practitioner’s intended audience as well as establishing a conscious physical or conceptual separation between the two practices. This strategy allowed the researchers Dr. Nielsen and Dr. Smith to challenge questions of authority or legitimacy by explaining Chinese medicine to patients and academic colleagues in a way that encouraged the greatest acceptance. Dr. Smith highlighted his preference for maintaining a physical separation as well, something that may allow him to anticipate the different expectations of each audience, even if the explanations and language used in both often combine in helpful ways. The preference for a separation between the two explanatory models should be taken into account when considering the continued integration of Chinese medicine into American medical systems.

Successful separation of this type should be approached delicately, since the goal is to make it natural for both patients and practitioners. Chinese medicine is predominantly integrated into U.S. medical practice in one of two ways. The integrative medicine clinic offers different types of healthcare providers all housed under one roof, while the complementary model

separates Western practices from non-Western practices and minimally connects them through a formal or informal referral network. While both models separate different types of practices and medical beliefs, I feel the complementary model is inefficient and troublesome for patients who must visit non-Western healthcare providers on their own initiative, or by the loose recommendation of their Western medical provider. I believe the integrative medicine clinic provides patients with a more seamless transition between different healthcare practices, providing patients with confidence that each different treatment or approach is being properly recorded and considered by different healthcare providers.

The family medicine doctor and medical acupuncturist, Dr. Erica Lovett, organizes a third model of integration. She practices family medicine three days a week, and integrative medicine two days a week. The integrative medicine days allow her to have thirty-minute appointments with patients, ten minutes more than on her other days, and she uses this time to introduce patients to Chinese medical concepts such as acupuncture. She expressed unhappiness with such extreme separation in her practice, but it was the only way she could see the number of patients her practice required her to, and bill insurance appropriately for the time. Interestingly, the charts and financial statements for her integrative medicine patients do not mention specific acupuncture treatments in order to maintain regularity within the practice and not confuse insurance companies.

It would appear from these three examples that sufficient separation already exists between the practice of Chinese medicine and biomedicine in the United States, but in some cases it is too much. The integrative clinic model provides both patients and doctors with the easiest framework for transitioning between multiple healthcare approaches. Just as Dr. Smith shares some of his latest research findings with his Tai chi students, and incorporates physical

exercises into his presentations to biomedical audiences, a permeable separation is necessary to satisfy patient, practitioner, and administrative needs. Practitioners keep two hats in their toolbox in order to approach a sick patient from either a Western or Chinese medical perspective, and once they choose, they perform both diagnosis and the resulting treatment without combining the two in order to avoid any potentially harmful interactions between both (eg. Acupuncture should not be performed on patients taking blood thinners.) Providing distinct offices for each practitioner in the integrative clinic provides the physical and conceptual space for doctors to confidently choose their approach, but the proximity to other medical practices encourages communication and permeability between healing modalities. It is also unnatural to assume that choosing a hat results in a practitioner releasing all of their other medical knowledge, and the integrative medicine clinic allows them to switch at any point without the difficulty of changing administrative or payment systems.

In general, the team approach to healthcare found in the integrative clinic reflects a more holistic approach to care than is generally taken by Western medicine. Dr. Smith described the inspiration for, and potential of, integrative medicine as follows:

...There is just so much more of a systems perspective on health these days. And therefore things like mind-body exercises, there is much more receptivity to it. And even on the genetic level, the whole movement of systems biology where we now know that one gene can control many, many systems, and many genes are involved in the regulation of any one process, all of a sudden all those boundaries are dissolving...And that's our definition of integrative medicine. Integrative medicine isn't the juxtaposition of conventional and alternative medicine. Integrative medicine is looking at the person as a whole. Dissolving boundaries between traditional compartments and looking at how processes at the physiological level scale up to relational processes. The making of a whole person, and how that whole person interacts to society...I think one could create a polemic and say they [Chinese and Western medicine] are really different, and you can always find the polemic, but I think by and large there is a lot of movement in conventional medicine to a more systems perspective.

Dr. Smith suggest that various discoveries in biomedicine, such as genetic research uncovering the interconnected nature of gene regulation and expression, encourages the increasing popularity of integrative medicine among providers of Western and non-Western

medicine alike. Dr. Smith's use of the phrase "dissolving boundaries" appears to contradict my earlier observation that some separation is helpful to integrative medicine practices. Based on observations of integrative medicine clinics such as Boston's Osher Clinical Center or the Center for Health and Healing in New York, integrative medicine does separate healing modalities based on a practitioner's training, but still dissolves the institutional boundaries which marginalize non-Western medicine. Separation allows practitioners to make decisions independently when they need to, but their offices remain identical to those of Western physicians, removing the potential implication of hierarchy resulting from this type of separation. Based on my observation that some permeable separation helps individual practitioners understand their two knowledge bases, as well as continue to build authority and gain legitimacy among different audiences, integrative medicine offers the most promising institutional organization to support the needs of practitioners and patients navigating the borderland between Chinese and Western medicine.

II.

Dual practitioners select the hat they wish to wear based on each individual situation they are presented with, choosing certain diagnostic tools and resulting treatment accordingly, but up until that point the practitioner could conceptualize the two different medical frameworks as having existed simultaneously. This inherent duality leads to the second trend observed among these nine practitioners navigating this borderland, which was to acknowledge and accept that biomedicine may not be able to explain everything about Chinese medicine, or vice versa. This strategy, employed by individuals, could also be applied to American medical institutions and how they approach researching the effectiveness of non-biomedical interventions.

Randomized Case-Control Trials are the gold standard in biomedicine for illustrating a cause and effect relationship between intervention and outcome, but they rely on quantitative data about the outcome. Chinese medicine presents a challenge to this model, since many of the outcomes in Chinese medicine are subjectively defined, and patients' definitions of success will vary (Giarelli 2007:60; Hare 1993:35-36). Biomedically dominated institutions have a hard time accepting the validity of other research models because they have never had to face the reality that something that explains biomedicine so well could not work for another type of medical practice. Practitioners and researchers of nonbiomedical healthcare, who have already had to accept this in order to continue their personal practice, encourage the development of a new research methodology that is applicable to many forms of medicine, while still maintaining scientific legitimacy (Giarelli 2007:70).

Wayne B. Jonas, director of the Office of Alternative Medicine at the National Institute for Health (NIH) from 1994 until 1997, suggests recognizing a research methodology that reduces emphasis on cause and effect relationships, and increases the importance of the “causal networks” which lead to disease or discomfort (Giarelli 2007:68; Baer 2005:440). Jonas' improved research model, the “Evidence House”, removes the hierarchy of “internal validity” (focus on causality) over “external validity” (focus on impact and adoption), allowing new treatments and biological mechanisms to be discovered, while also taking into account the impact and effect it has on patients and the community (Giarelli 2007: 69-70). It is expected that this research model, along with an understanding that different types of questions require different methodologies to study them, will increase understanding of non-biomedical practices and help legitimize it for those still skeptical (Baer 2005:40; Giarelli 2007:70).

Many of the practitioners I spoke with also suggested that research with an emphasis on the cost effectiveness of integrative medicine, and Chinese medical practices within that, would be most beneficial for the greater acceptance of their work among American medical institutions. Dr. Heffron voiced a popular concern among these nine practitioners when he suggested that, while research into the biochemistry of herbs or neuro-mechanisms of acupuncture is fascinating for clinicians, it would not be effective at changing the dominant view of American medicine. This dominant view suggests biomedicine is the more safe, legitimate, cost-effective, and better researched option for care.

If American medical institutions were to reach the same understanding as the individual practitioners, acknowledging the existence of medical realities that cannot be explained with biomedical language and research methods, the healthcare system could become a more relativistic and open environment. This would help accept a more diverse set of research methodology standards, and support further data collection on the cost effectiveness, safety, and impact of Chinese medicine. In order for American medical institutions to achieve this kind of relativism, everyone involved in the healthcare system, from patients to healthcare providers, would likely need to be better educated in the beliefs and practices of Chinese medicine. This kind of patient and professional education should draw on physical experiences, already found to be helpful to those who study both.

III.

The third strategy identified in this thesis to help navigate the borderland between Chinese and Western biomedicine was the use of visual descriptions and metaphors to produce a physical experience confirming the existence and benefits of Chinese medicine, especially where language may fail to provide this type of confirmation. Research studies are the predominant

method for establishing and sharing a given medical intervention's effectiveness to the biomedical community. Communication regarding the benefits of Chinese medicine has largely relied on these biomedical research tools to educate the professional and lay public about Chinese medical practices. The success that both Dr. Smith and Dr. Heffron have found incorporating physical experiences into professional presentations, as well as acupuncture student's appreciation for the physical transfer of Chinese medical knowledge, and Stan's ability to encourage a faster understanding of Tai chi's benefits through culturally relevant visual metaphors, all confirm the value of physical experience in Chinese medical education. Therefore, those who wish to educate the biomedical and lay community in order to encourage greater acceptance and understanding of Chinese medicine should engage with their audience through more than just language.

IV.

Above, I have suggested ways in which the experience of borderland practitioners could improve future integration of Chinese medicine into American medical institutions. Anzaldúa suggests that the experience of navigating a borderland inspires *la mestiza* to become greater than the two or more identities that define her, developing a new, more agile, flexible, and enlightened identity, "a *mestiza* consciousness" (Anzaldúa 2007:101-102). *La mestiza's* experiences is not always pleasant, the tension of a dual identity often resulting in intense physical and emotional pain as one worldview is replaced with another, but the experiences of those who adapt and redefine their beliefs are incredibly valuable to the overall improvement of both sides. Dr. Heffron demonstrates the enlightened viewpoint of *la mestiza* when his experience being a Chinese medical physician reveals a relative weakness in how biomedicine approaches disease prevention.

In Chinese medicine there is an ideal of health, perfect balance of qi...[and] It's a way of living to achieve balance of qi. All the things that go into doing that should be paid attention to. Eating the wrong food...too much stress... emotional issues from early in life that were never resolved... [these are] early markers of imbalance that, if left completely ignored, can turn into real disease as opposed to the imbalance of daily living...Prevention in Western medicine is about early discovery. Finding breast cancer when it is two centimeters instead of two inches. While that's great, it didn't prevent cancer...The problem with the Western approach is that we don't really change much. We treat disease after it starts...Chinese medicine, [through something like] pulse diagnosis, has a way to observe the early markers that can inform true prevention of disease development.

Dr. Heffron's knowledge of both Chinese and Western medical practices allow him to observe the strengths and weaknesses of both, applying his new consciousness to the continued improvement of patient care. For those not currently inhabiting the borderland between Western and Chinese medicine, examining the creation and application of the "*mestiza* consciousness" can still encourage this same kind of reflexivity towards dominant medical systems in the United States. It can illustrate to all of us the importance of understanding, rather than dismissing, unfamiliar medical ideas. Perhaps most importantly, it can motivate a continued effort to develop a healthcare system that offers the best possible treatment options for its population, appreciating the full and diverse range of human medical knowledge.

Bibliography

Academy of Pain Research

2014. "Acupuncture Course Unique Features." Web., <http://www.acupuncturecourse.org>.

Aihua, Xie

2011 Micro-holistic body model: reconciliation of Traditional Chinese Medicine with modern biomedicine? *Iranian Journal of Medical Hypotheses & Ideas* 5:1-11.

Alvarez, Robert R.

1995 The Mexican-US Border: The Making of an Anthropology of Borderlands. *Annual Review of Anthropology* 24(1):447-470.

Anzaldúa, Gloria

2007 *Borderlands/La Frontera: The New Mestiza*. San Francisco: Aunt Lute Books.

Baer, Hans A.

2005 Trends in Religious Healing and the Integration of Biomedicine and Complementary and Alternative Medicine in the United States and around the Globe: A Review. *Medical Anthropology Quarterly* 19(4):437-442.

Bivins, Roberta

2008 *Alternative Medicine: A History?*: Oxford University Press.

Brigham and Women's Hospital

2013. "An Introduction to the Osher Center for Integrative Medicine Video-Brigham and Women's Hospital." Web. Brigham and Women's, <https://www.youtube.com/watch?v=2lmHnX1PRy0&t=111>.

—

2014. "Our Research." Web., http://brighamandwomens.org/Departments_and_Services/medicine/services/oshercenter/our-research.aspx?sub=2.

Buring, Julie E.

2014. "Use and Effectiveness of a Model Integrative Care Clinic in an Academic Hospital: Study 1-Survey." Web. Brigham and Women's Hospital, <https://clinicaltrials.gov/ct2/show/study/NCT01353560>.

Center for Health and Healing, The

2015. "History of the Center." Web., <http://healthandhealingny.org/OurServices/about-us/history-of-the-center.aspx>.

Crane Herb Company

2015. Web., <https://www.craneherb.com/>.

- Dobos, Gustav and Iven Tao
2011 The Model of Western Integrative Medicine: The Role of Chinese Medicine. *Chin J Integr Med* 17(1):9.
- DUJS Staff
2012 The Globalization of Traditional Chinese Medicine and its Integration with Conventional Medical Treatments. *Dartmouth Undergraduate Journal of Science*.
- Encyclopedia Britannica
2014. "Mind-body dualism." Web.
<http://www.britannica.com/EBchecked/topic/383566/mind-body-dualism>.
- Farquhar, Judith
1994 *Knowing Practice: The Clinical Encounter of Chinese Medicine*. US: Westview Press.
- Forum, The
2015. "David Eisenberg." Web. The President and Fellows of Harvard College,
<http://theforum.sph.harvard.edu/expert-participants/david-eisenberg/>.
- Foucault, Michel
1963 *The Birth of the Clinic*.
- Giarelli, Guido
2007 The Ambivalence of Integrative Medicine. *In On Knowing and Not Knowing in the Anthropology of Medicine*. R. Littlewood, ed. California, USA: Left Coast Press.
- Hare, Martha L.
1993 The Emergence of an Urban U.S. Chinese Medicine. *Medical Anthropology Quarterly* 7(1):30-49.
- Icahn School of Medicine
2015. "Our Physicians, Arya Nielsen, PhD." Web. Mount Sinai Health System,
http://www.docnet.org/physicians/phys_bios.aspx?phys_id=10049.
- Jahnke, Roger
2002 *The Healing Promist of Qi: Creating Extraordinary Wellness Through Qigong and Tai Chi*. USA: McGraw Hill.
- Kaptchuk, Ted J., and David M. Eisenberg
2001 Varieties of Healing. 1: Medical Pluralism in the United States. *Annals of Internal Medicine* 135(3):189-195.
- Kastner, Joerg
2004 *Chinese Nutrition Therapy: Dietetics in Traditional Chinese Medicine (TCM)*. A. Moje, transl: Thieme.

- Kleinman, Arthur
1988 The Illness Narratives: Suffering, Healing and the Human Condition. USA: Basic Books.
- Lock, Margaret
1993 Cultivating the Body: Anthropology and Epistemologies of Bodily Practice and Knowledge. Annual Review of Anthropology 22(1):133-155.
- McCallum, Cecilia
2014 Cashinahua perspectives on functional anatomy: Ontology, ontogenesis, and biomedical education in Amazonia. American Ethnologist 41(3):504-517.
- Mehta, Neeta
2011 Mind-body Dualism: A critique from a Health Perspective. Mens Sana Monographs 9(1):202-209.
- Moyers, Bill
1993 Healing and the Mind. New York: Doubleday.
- National Certification Commission of Acupuncture and Oriental Medicine (NCCAOM)
2014. "Eligibility Requirements." Web., <http://www.nccaom.org/applicants/eligibility-requirements>.
- Nielsen, Arya
2012 The Science of Gua sha. Oriental Medicine.
—
2013. "Gua Sha." Web., <http://guasha.com/>.
—
2015. "Practitioner Statement and History/Philosophy of Acupuncture." Web. Health and Healing NY, <http://www.healthandhealingny.org/complement/acupuncture.html>.
- Pacific Symposium
2015. "Arya Nielsen." Web. Pacific College of Oriental Medicine, <http://pacificsymposium.org/category/speakers/arya-nielsen-phd-lac/>.
- PAINS Project
2014. "Policy Brief Never *Only* Opioids: The Imperative for Early Integration of Non-Pharmacological Approaches and Practitioners in the Treatment of Patients with Pain." Web. PAINS Project, http://www.painsproject.org/wp/wp-content/uploads/2014/09/pain-policy-issue-5.pdf?utm_source=Policy+brief+announcement&utm_campaign=Policy+brief&utm_medium=email.

- Pritzker, Sonya E.
 2011 The Part of Me that Wants to Grab: Embodied Experience and Living Translation in U.S. Chinese Medical Education. *Ethos* 39(3):395-413.
- 2012 Living translation in US Chinese medicine. *Language in Society* 41(3):343-363.
- 2014 Living Translation: Language and the search for resonance in U.S. Chinese medicine. New York: Berghahn Books.
- Quirke, Viviane, and Jean-Paul Gaudilliere
 2008 The Era of Biomedicine: Science, Medicine, and Public Health in Britain and France after the Second World War. *Medical History* 52(4):441-452.
- Ross, Anamaria Iosif
 2012 The Anthropology of Alternative Medicine. New York: Berg.
- Sagli, Gry
 2001 Chinese Medical Concepts in Biomedical Culture: the Case of Acupuncture in Norway *In* Historical aspects of unconventional medicine: approaches, concepts, case studies. M.C. Nelson, M. Eklöf, and R. Jütte, eds. Pp. xii, 288 p., Vol. xii, 288 p. Sheffield: European Association for the History of Medicine and Health Publications.
- 2010 The establishing of Chinese medical concepts in Norwegian acupuncture schools: the cultural translation of jingluo ('circulation tracts'). *Anthropology & Medicine* 17(3):315-326.
- Said, Edward
 1979 Orientalism. New York: Vintage
- Stollberg, Gunnar and Robert Frank
 2004 Conceptualizing Hybridization: On the Diffusion of Asian Medical Knowledge to Germany. *International Sociology* 19(1):71-88.
- Sun Da-zhi (孙大志), Li Shao-dan (李绍旦), Liu Yi (刘毅), Zhang Yin (张印), Mei Rong (梅荣) and Yang Ming-hui (杨明会)
 2013 Differences in the Origin of Philosophy between Chinese Medicine and Western Medicine: Exploration of the Holistic Advantages of Chinese Medicine. *Chinese Journal of Integrative Medicine* 19(9):706-711.
- Weeks, John
 2014 Chronicles of Health Creation: Joint Commission Issues New Pain Standards in Response to Integrative Medicine Team. *Huffington Post*, 12/01/2014.
- Wolpe, Paul Root
 1985 The Maintenance of Professional Authority: Acupuncture and the American Physician. *Social Problems* 32(5):409-424.

Worsley, Peter

1982 Non-Western Medical Systems. *Annual Review of Anthropology* 11(1):315-348.