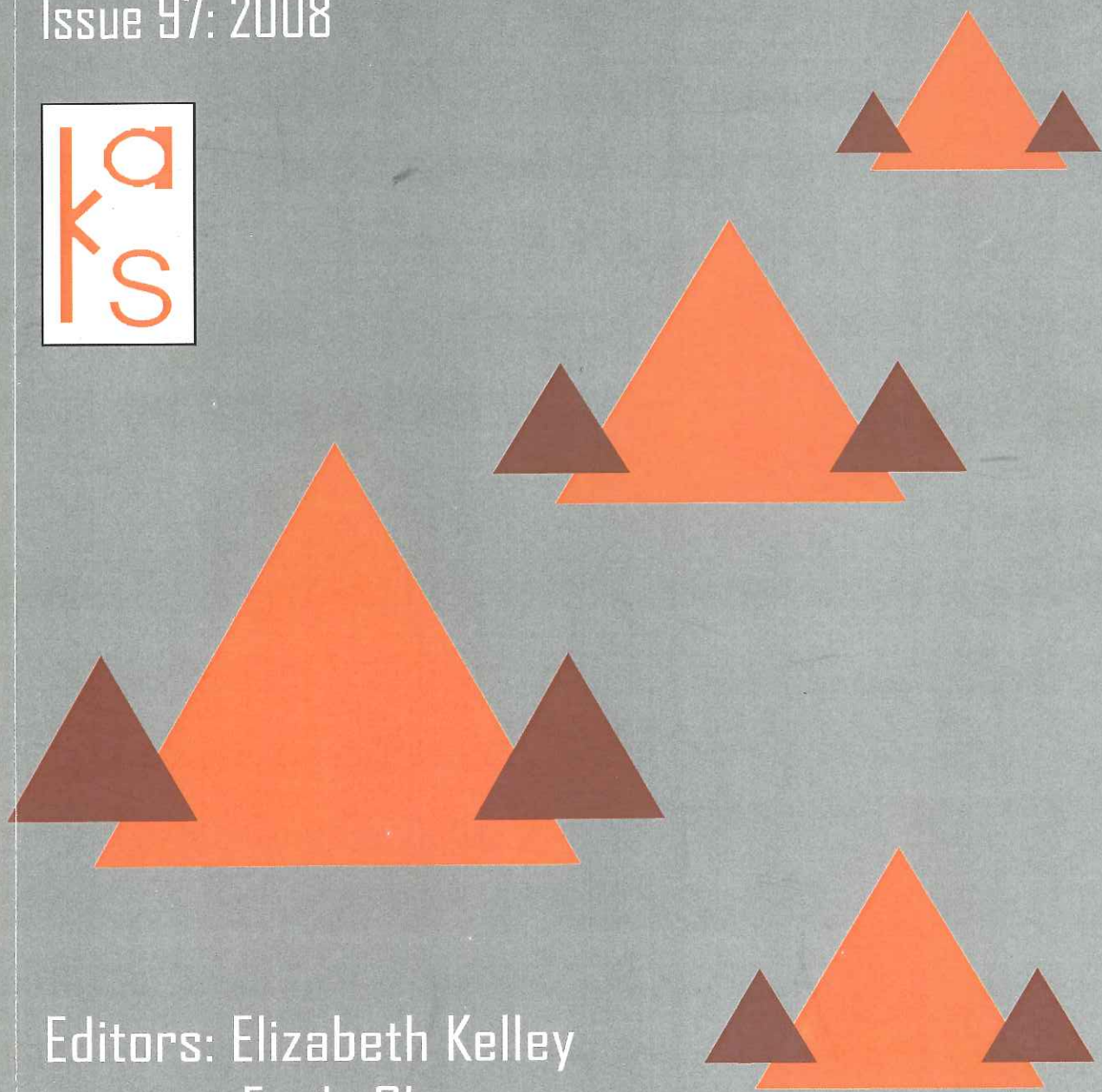
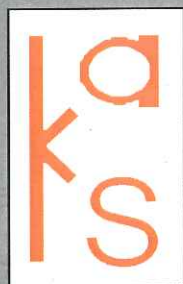


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“An Ancient Subtle Energy Healing Art and Science for Today's Lifestyle”¹: Qigong and the Problem of the Non-Modern Global Form

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Introduction: Questioning the “Global” in *Global Assemblages*

This paper explores a set of questions posed in response to the concept of the global put forth by Aihwa Ong and Stephen Collier (2004) in their edited volume *Global Assemblages*. In particular, this paper challenges the assumption made in *Global Assemblages* that only modern, rational, Western social forms obtain truly global status, an assumption they draw from Max Weber's understanding of modern rationality as universally significant. This paper examines the globalization of traditional Chinese medicine – through the specific example of qigong – as a potential case study for understanding how non-modern social forms may be obtaining global influence in the world today.

In *Global Assemblages*, Ong and Collier propose a method for anthropological study in which they examine “global assemblages,” which they define as particular instances of the articulation or territorialization of “global forms.” Global forms are large-scale social processes such as capitalism, technoscience, modern administrative practices, and liberal moral philosophy which are associated with modern rationality. In Ong and Collier's explanation, global forms are understood to be independent from convention – what they call “the props of culture” – and to have global significance that stretches beyond boundaries of cultural, national, or social difference. Global forms occupy interconnected realms of activity spanning great distances of time and space. Although abstract and empty of cultural content in themselves, global forms become empirically visible when grounded or articulated in “assemblages,” when they insert themselves into particular spaces, times, practices and human forms.

In her essay on stem-cell research included in the volume, Sarah Franklin (2004) treats activities involving particular laboratories, institutions, and individuals as articulations of the global form of technoscience.² In the introduction Collier and Ong explain, The “significance [of stem cell research] is not delimited by social, cultural, or economic determinations [...] *Potentially*, stem cell research could be organized in any social context, and findings based on this research would be valid anywhere. *Potentially*, it bears on biological life [...] and can transform how we understand, intervene in, and, indeed, live human life *qua* biological life” (3). In

Elizabeth Dunn's (same volume, 2004) research on European Union ISO standards for meat production, health codes and laws are transferable from one part of the European Union to another despite cultural, social, economic, and national situations (although Dunn herself is suspicious of this claim). Dunn describes the food production standards as "a form of internalized discipline, [which] offered to make Eastern European enterprises converge on the forms and practices of Western European companies" (176). Like other auditing practices, they are designed "to be applicable across geographies with diverse histories and institutions" and to be "objects transferred from one community of practice to another, which have profoundly transformative effects without being transformed themselves" (175-7).

Global assemblages that arise around the territorialization of ISO standards and stem cell research are global because they are part of the global forms of neoliberal bureaucratic administration and biomedical technoscience, respectively. Ong and Collier insist there is something special about these global forms that makes them particularly global in ways that other cross-cultural or large-scale phenomena are not. Drawing on the work of numerous social theorists in the Weberian tradition, they argue that global forms have achieved global status not through an accident of history (such as the industrial revolution, imperialism, and the cultural dominance of Euro-American cultural forms)³, but rather because they possess "universal significance," a quality that is inherent in the rationality of modern social forms (10).⁴ "Universal significance" is a special property that Weber described in *The Protestant Ethic and the Spirit of Capitalism* (1930) and which he argued is based in a kind of rationality ("zweckrationalitat") that is only present in cultural forms of the modern West. *Zweckrationalitat* is a way of thinking and acting based on systematicity, consistency, method, calculability, and, above all, the absence of recourse to magic in either explanation or decision-making (Sayer 1991).

An important aspect of Weber's conception of modernity is the contrast between modern, rational forms of knowledge and practice with cultural forms produced in what he calls "traditional" contexts. The traditional context is characterized by forms of political order, knowledge production, and logics of decision-making rooted in cultural tradition rather than in rational assessment and procedure. The traditional social forms of knowledge and practice, according to Weber, though often based in empirical knowledge, are not rational in the modern sense and therefore cannot attain global influence in the way that modern forms can. Only modern rational systems of thought and practice attain the status that Weber calls universal in the most extreme sense (Weber 1930: 13-15).

This paper poses the following questions: How should anthropologists respond when social forms that are not Western, modern, or rational (thus, not universalizable in the Weberian sense) appear to be achieving widespread presence or significance around the world? Can this process of global influence be compared with the processes of globalization described in Ong and Collier's volume? If so, are

different concepts of the global needed to explain these phenomena? This paper addresses these questions in a discussion of the international spread of knowledge and practice related to qigong. Qigong is one of many Asian self-cultivation practices (yoga, zen meditation, taijiquan, reiki, etc.) that have enjoyed increased popularity around the world since the 1970s and have been understood to have an international presence precisely because of a perceived distinctiveness from modern Western social forms. This paper does not answer the question of whether qigong has become global, rather it treats the paradox of qigong's growing international presence as material for rethinking definitions of the global for anthropology today.

The terms "global significance" and "universal significance" will be distinguished in this paper. Global significance is used here to refer to the general quality of international presence or influence. Universal significance here refers to Weber's notion that modern social forms, by virtue of their rational nature, can extend beyond the conventions of tradition. Ong and Collier attribute both of these qualities to global forms. By collapsing the global and the universal, Ong and Collier assume that global forms must be modern, Western and rational. This paper argues that such a collapse reverses much of the headway made in globalization theory and the anthropology of globalization in the 1990s and thus insists that the two terms be considered independently.⁵ Ong and Collier's collapse of Weber's notion of the rational universal into their understanding of the global limits social scientists' ability to recognize and examine newly arising globally significant social forms, because it promotes a conflation of the global with cultural products of the modern West.

Another important distinction employed in this paper is that between "traditional modernity" and "new modernity," drawn from social theorists Ulrich Beck and Anthony Giddens' essays in *Reflexive Modernization* (1994). Traditional modernity, which they associate with the social changes arising from the rise of capitalism, modern technoscience, and the nation-state emphasized the overcoming of tradition through predictable and controlled change based on rational analysis and knowledge of the natural world. The era of "new modernity" (what Giddens and Beck call "late modernity" or "reflexive modernity," respectively) is characterized by a re-emergence of tradition and distrust of modern processes. The forces driving qigong's globalization today are similar to the ones Beck and Giddens describe in that many promoters of qigong argue that qigong as a traditional antidote to the ills of modern society. Thus, new modernity is characterized by increased reflexivity, the strengthened re-emergence of non-modern social forms, and new forces of social change.

Qualities of the Global in Traditional Modernity: Latour's "Immutable Mobiles" and Giddens' "Expert Systems"

In order to examine processes of globalization in the era of new modernity, it is important to understand how social theorists have understood these processes in

their analysis of traditional modernity. Anthony Giddens and Bruno Latour offer two sophisticated and influential explanations for the processes by which technoscience and capitalism attained global significance in the rise of traditional modernity. Latour's (1987) model, set forth in *Science in Action* is the "immutable mobile." He explains the expansive power of technoscience in terms of scientists' ability to use technologies of abstraction to make themselves "obligatory passage points" in the global transfer and processing of information (227, 245). Giddens' formulation, the "expert system," applies Weber's notion of rational-legal authority to twentieth-century institutions, arguing that expert authority (as opposed to traditional authority) is inherently disembedding, "because it is based upon impersonal principles, which can be set out and developed without regard to context" (1994: 84). Both Latour and Giddens argue that modern social forms attained global significance because of their rationality, capacity for abstraction, and potential to be disembedded from cultural conventions.

In Latour's account, modern science becomes global by creating networks that make knowledge more cumulative and place technoscience experts at the control centers in the production and spread of knowledge. In these control centers, researchers take particular items of information attached to specific contexts or places and transform them into abstracted, combinable, and generalizable knowledge. Latour uses the example of eighteenth-century Versailles to explain his point. Officials in Versailles sent ships of geographers to map the coast of China and although they could not literally bring back the Chinese coastline to Versailles, the geographers brought back enough information about the coastline that future geographers who saw their data would be able to revisit the place and already be familiar with it. In Latour's terms, the geographers rendered the information "mobile," "stable," and "combinable," qualities Latour sees as the three most important features of technoscientific knowledge (223). The tracings of Chinese coastline that the geographers in Versailles produced and shared with their colleagues in other research centers are what Latour calls "immutable and combinable mobiles" because they can be transferred easily from one context to another by way of standardized scientific codes, machines, and calculations. Whoever has the capacity to manipulate knowledge in such a way that it becomes abstract, generalizable and transferable has the ability to create centers of knowledge production around which the rest of the world "revolve[s]" or becomes reliant (224).

According to Latour, to deal with an overload of immutable mobiles as information accumulates, the calculators in the control centers invent strategies for condensing the material they receive. They create totals, percentages, and charts, developing ever more refined forms of abstraction, which Latour calls "nth degree forms." In Latour's view, nth degree forms are the secret to the spread of technoscience in the modern world. They allow one to "have the form of something without the thing itself," and therefore accelerate the mobility, stability, and combinability of knowledge (243). The calculators who produce the nth degree forms

play a strategically powerful role in the network, and they produce the formal rational techniques of abstraction that all new knowledge must pass through. The formal and rational character of the nth degree forms is what makes technoscience capable of disembedding and becoming a global form, and the equations and calculating procedures can in theory absorb any foreign content and be applicable anywhere that the network spreads.

Giddens poses a second explanation for how the domains of science and capitalism gained universal influence during the rise of traditional modernity. For Giddens the key to understanding what allows modern forms such as capitalism and technoscience to become global is their use of expert authority, a particularly modern social formation dependent on the emergence of rational-legal social systems such as that of the modern nation-state. According to Giddens, modern rational authority draws its validity from "expert knowledge," whereas traditional authority its from "formulaic truth." Building on Weber's ideal types of traditional and rational authority, Giddens suggests two ideal types to describe two different kinds of authorities in twentieth-century institutions. The person with authority in modern systems is the "expert," and the person with authority in traditional systems is the "guardian" (1994: 63-95).

In Giddens' explanation of these ideal types, guardians derive their authority from status in a traditional order, a kind of personal loyalty that is cultivated through time and validated by the guardian's role in the established social structures. The guardian is thought to have access to esoteric and arcane wisdom that allows him or her to produce interpretations and prescriptions using formulaic truth. The guardian's wisdom is not communicable to the outsider or to the public at large, and tradition makes it impossible for people without the status of guardian to access it. The truth statements that the guardian makes are not validated through the referential properties of language, which could be contradicted, but rather through the ritual performance of the guardian, which, Giddens argues, cannot be contradicted in the way that language can. Because of their special status as elders, healers, magicians, craft masters, or religious functionaries, guardians are believed to be the agents of the causal powers that make their statements true (1994: 64).

Expert authorities in modern social systems, in contrast to traditional guardians, derive their authority from their attainment of publicly recognized competence in rational formal systems of knowledge-practice. Trust in the expert presumably draws not on personal loyalty or status but rather on a commitment to the legality or rationality of the rules, process, or formal procedure that order the production of truth in the expert system. Giddens contrasts the wisdom of guardians with the competence of experts. The expert produces scientific truth, which is at least in theory subject to methodical skepticism. The rules of logic driving the knowledge-production of the expert's truth statement are made available to the outsider, and contradictions can be voiced against a particular truth claim without denying the

authority of the individual expert or of the system as a whole. When people trust experts, Giddens explains, what they are really trusting is the process by which expertise is established and verified.

Giddens argues that a major difference between traditional guardian-based authority and modern expert-based authority is that traditional authority is inherently contextualized, whereas expert systems are highly mobile, an important factor for globalization in traditional modernity.

Expert systems decontextualize as an intrinsic consequence of the impersonal and contingent character of their rules of knowledge-acquisition; as decentred systems, 'open' to whosoever has the time, resources and talent to grasp them, they can be located anywhere (85).

Expert systems are essential for disembedding processes to take place because they allow standards of truth and authority to be lifted out of one context and re-embedded into another. Giddens argues that these rules are "impersonalized and contingent," or formally rational, transferable, and inclusive. Just as Latour's immutable mobiles become global because they can accumulate any content into their system of abstractions, expert systems go global because anyone can become an expert.

In what senses can the examples of global forms discussed in *Global Assemblages* be described as immutable mobiles or expert systems? Stem cell research, as Sarah Franklin (2004) shows is part of a powerful and expansive network of genomics research. Like the geographers sent out to map the coast of China, geneticists and biologists bring back tracings of the terrain of intra-cellular life and analyze their material in way that it is transferable to other research centers around the world. Like the ships and atlases that geographers took with them to make their inscriptions of coastlines, the geneticists and biologists use specialized instruments like high-powered microscopes, micro-injector tubes and genetic splicing devices to map their distant lands, and they develop nth degree forms to describe the information they gather in terms of measurements, totals, percentages, and equations, which they in turn use to share and compile information. Ultimately, the network of instruments, abstractions, and people of genetics and stem cell research make up an immutable mobile, and any activity that requires knowledge of the inner genetic terrain of the cell must pass through centers of calculation. Giddens would likely argue that the geneticists and biologists working in stem cell research centers are experts and not guardians (though a number of science studies scholars might disagree). It is not they personally who hold the key to knowing the inner terrain of the bodies they study but rather the systems of rules and formal procedures that give them the authority to speak about genes and cells. The statements of experts can be contradicted based on the formal procedures of biological research, and the legitimacy of the claims to

knowledge that the geneticists make is always in principle distinct from any personal status of a particular scientist.

Many criticisms could be made of Giddens and Latour's models, for example their relative lack of attention to global power imbalances during the rise of traditional modernity. By placing so much emphasis on the form and internal characteristics of particular social forms produced and promote by the modern West – in particular the supposed rationality of these forms – they ignore other factors that contributed to their global spread, namely the military, economic, and cultural power that the West achieved through the industrial revolution and colonialism during the same period. Any deep assessment of globalization in the emergence of traditional modernity should consider these factors as well.

The Globalization of Qigong: Paths of Emergence for the Non-Modern Global Form

Although its global presence is not comparable with that of capitalism or modern technoscience, qigong has attained a degree of global presence in recent years that makes it worth examining as a potential case study for rethinking concepts of the global. Qigong presents an interesting case because many argue that its potential for global significance derives specifically from its non-modern and non-Western qualities. Although forms of Chinese qi-cultivation have been studied in Western Europe and the United States for several centuries (Needham and Lu 1983; Chen 2003), qigong has acquired a new level of international recognition and popularity in the past twenty years. On the heels of the international Complementary and Alternative Medicine (CAM) movement, qigong and other non-mainstream medical treatments and self-help practices have begun to enter the realms of biomedicine, neoliberal techniques of the self, international social movements, and global capital markets (Eisenberg *et al.* 1993).

The CAM movement has been one of the driving forces behind the international spread of Chinese medicine. This section looks at the specific processes by which qigong, as part of the international spread of Chinese medicine and the larger CAM movement, obtains international recognition and influence in the world today. Ethnographic material for this section is drawn from research conducted in 2004 in the U.S. and the U.K. while based at the University of Cambridge.⁶ The selected materials are intended to provide illustrations and are by no means representative. These examples cannot prove qigong's global significance but rather offer insight into the global ambitions of CAM promoters and the forces and processes that have made it possible for qigong and other alternative therapies to aspire to global influence. This paper is a starting point intended to encourage further research into the processes by which non-modern, non-Western social forms attain global presence in the conditions of new modernity.

In the U.S. and the U.K., qigong has been promoted as a stress-management technique, a form of self-cultivation with a spiritual dimension, a preventative healthcare practice, and a medical treatment associated with traditional Chinese medicine. Qigong, like most other CAM therapies, has been lauded by its proponents as a safer and less invasive alternative to surgical and pharmaceutical interventions used in biomedical practice. It has also been promoted as a deterrent against perceived health hazards of life in modern society, such as stress, overwork, loss of spiritual grounding, and environmental pollution. Unlike many other therapies included in the CAM conglomerate (such as chiropractic, Alexander technique, naturopathy, or macrobiotics), qigong derives a special prestige from being part of Traditional Chinese Medicine, a set of knowledge and practices believed to have been practiced for thousands of years. The prestige of tradition affords qigong unique advantages and problems as it moves through global networks and is an important factor to consider in the understanding of motivating factors for qigong's spread. Three paths of emergence can be identified in the global circulation of qigong: 1) social movements for the promotion of Complementary and Alternative Medicine, which have created centers for the dissemination of information about CAM, including national centers for CAM research; 2) academies for qigong training for the general public and for physicians, and the international human circulation of qigong practitioners that makes this possible; and 3) randomized, controlled clinical trials of qigong conducted by major medical research institutions. Each of these arenas, along with others that will not be discussed in detail here,⁷ contribute to qigong's growing global presence.

An important event in the history of the CAM movement in the United States is Eisenberg et al.'s article "Unconventional Medicine in the United States" published in 1993 in the *New England Journal of Medicine*. This study proved that Americans were spending a much higher amount out-of-pocket on unconventional healthcare treatments than had previously been reported, and it advised representatives of the mainstream medical establishment to give serious attention to what the authors called a widespread social phenomenon of CAM use. According to the study's findings, one in three Americans used unconventional therapies for the treatment of illness in 1990, and the number of visits made to practitioners of unconventional therapies outnumbered visits made to primary care physicians in that year. In *Shadow Culture: Psychology and Spirituality in America* (2000), historian and psychologist Eugene Taylor chronicles three hundred years of alternative healing in the U.S. and links this tradition to the twenty-first century "New Age" movement.⁸ One reflection of the strength of these popular movements is that they have led to the creation in both the U.S. and the U.K. of national government-funded research centers dedicated specifically to the study of CAM therapies. In 1991 the U.S. government passed Public Law 102-170, which provided the National Institutes of Health with two million dollars to start a research program for investigating CAM. This motion led to the establishment of the National Center for Complementary and Alternative Medicine, a government body devoted entirely to CAM research (NCCAM, 2004).

The U.K. House of Lords Select Committee on Science and Technology passed a similar motion in 2000, which led to the creation of the national Research Council for Complementary Medicine (HL Paper 123; RCCM 2004).

These national centers were created because of the growth in popular practice of CAM and popular requests for medical insurance coverage for visits to CAM therapists (Lewith and Aldridge 1993; Tauber 2002; AAP 2004). Professional associations like London's Complementary Medicine Association organize CAM therapists in to promote professional standards and lobby for recognition by representatives of mainstream healthcare. Likewise, patient organizations such as the Health Freedom Foundation put pressure on government officials and healthcare policy-makers to recognize CAM therapies in mainstream medicine, to cover healthcare costs related to the use of CAM therapies, and to promote research on CAM therapies (Goddard 2004). Numerous patient-based organizations in the U.S. and the U.K. represent the concerns of laypersons who wish to see CAM receive more attention in medical research and government spending. One such group, the Annie Appleseed Project, promotes awareness about CAM therapies for cancer patients and advocacy for legislation that will make such therapies financially viable options for people living with cancer (AAP 2004).

Social movements that promote CAM awareness and research have been decentered and disunited, yet the advocates share a common message and set of concerns, which largely take two forms. First, supporters of CAM argue that modern life poses special kinds of health risks, which can best be alleviated through health promotion practices typical of CAM therapies. The American Qigong Association alludes to this concern in the quotation headlining its website (and the title for this paper): "Qigong: An ancient subtle energy healing art and science for today's lifestyle" (AQA 2004). This statement evokes a pervasive form of discourse in which qigong is envisioned as a kind of ancient wisdom that can be used to solve problems of modern life. Supporters of CAM argue that it is necessary to counterbalance harmful changes in humans as well as to supplement biomedicine in areas in which it is not sufficient. Proponents of this discourse argue that CAM offers a "holistic" approach to healing that is missing in biomedical approaches, which are usually characterized as "reductionist" (Tauber 2002; Mason *et al.* 2002). Catherine Kerr, a researcher at the Harvard Osher Institute and a cancer patient who practices qigong as part of her own treatment regimen argues that qigong and biomedicine come from two different "healing paradigms" which view the connection between mind and body in inherently different ways (Kerr 2002; 2004). Health psychologist John Astin (1998) in a national survey of American users of CAM concluded that the most statistically significant correlation for using CAM – apart from higher wealth and lower reported health levels – was a belief in holistic approaches to health and a conviction that CAM therapies were more congruent with this belief.

In addition to social movements and CAM advocacy, qigong attains global significance through the circulation of practitioners and the establishment of academies and training centers. In their chapter of *The Way Forward for Chinese Medicine* (2002), Hui *et al.* argue that, along with acupuncture and herbal medicine, qigong and the closely linked tai chi have been an important part of the "rapid development" of Chinese medicine in the U.S. Qigong classes are a common activity at community education centers, YMCA organizations, and health clubs, and Hui *et al.* report that qigong and tai chi, along with yoga, are among "the most popular non-conventional exercise techniques in America" (14). Schools dedicated to the training of professional medical qigong practitioners have also increased in numbers over the last several decades. The Qigong Institute in Menlo Park, California, (founded in 1987), The Institute of Chinese Medicine in London (founded 1990), The London College of Traditional Acupuncture and Oriental Medicine (founded in 1992), The UCLA Center for East-West Medicine (founded in 1993), The Harvard Medical School Osher Institute (founded in 2001), and The Yellow Mountain Institute of Traditional Chinese Medicine and Medical Qigong in Sierra, California, (founded in 2005) are among the best known centers for coursework and/or professional workshops for qigong practitioners in the U.S. and the U.K. Qigong practitioners from East Asia also travel abroad to teach and practice qigong, and non-Chinese travel to China to study qigong (EVI 2004). Originally from Taiwan, qigong master Jwing-Ming Yang has established twenty-five qigong and martial arts training institutes around the world (Yang 1989).

Qigong practitioners also get hired at professional workshops and corporate trainings. Jazz Rasool, U.K. Director of the International Institute of Medical Qigong, recounts the following story:

Recently a major international conglomerate corporation decided to do a re-branding campaign centering on the concept of vitality. A few weeks ago, they had an internal conference here in London, and the top 100 executives from all around the world came for the conference to learn about the concept of vitality and how the company was going to promote it through their product [...] Every session during the conference opened with me giving the participants medical qigong exercises to improve their vitality for the rest of the day. When the session finished, I gave them 15 minutes of closing exercises. Amidst all this commercial chit-chat, and conversations about branding and finances, I began every session with qigong and closed it with qigong. (Rasool 2004)

Rasool's story suggests that qigong appears in highly globalized arenas of modern life not only as a personal practice but as part of a marketable concept with global appeal. The desire for qigong and for lifestyle characteristics such as "vitality" with which it is associated is an important factor motivating its spread.

A third avenue through which qigong is developing global significance is medical research in the form of randomized controlled clinical trials. Randomized controlled trials are a unique form of medical research created to establish evidence of the efficacy of medical treatments, and they have become the internationally recognized "gold standard" of research for facilitating the introduction of new or unorthodox therapies into mainstream medical practice (Friedman *et al.* 1985; Schwartz and Lellouch 1967). In the case of qigong, this means that hundreds of trials have been and are being conducted to identify which populations tend to be affected by qigong practice, under what conditions, and in what ways (NCBI 2004; Sancier 2004). The trials provide data that legislative bodies use to determine whether to fund qigong treatment as part of mainstream medical care. Interestingly, most clinical trials claim to give reports on the efficacy and indications of qigong without opening up the question of how effects of qigong can be explained. Qigong partakes of Traditional Chinese Medicine's theories about how the human body works, and these ideas do not align with descriptions given by modern biology. Traditional knowledge about qigong explains its effects in terms of changes in qi energy, Five Phases theory and Yin-Yang analysis. However, researchers conducting clinical studies of qigong almost never mention changes in qi energy or any other elements of Traditional Chinese Medicine theory in their reports (Mak and Ng 2003; Nowalk *et al.* 2001; Taggart 2002; Tsang *et al.* 2004a,c,b; Tse and Bailey 1992; Wolfe *et al.* 1996; Wolfson *et al.* 1996; Wong *et al.* 2001; Wu *et al.* 2002; Yan *et al.* 1999)⁹. Despite the differences between traditional Chinese medical theory and mainstream modern medicine's biomedical theory, evidence of qigong's effectiveness established in clinical trials is accepted by most advocates of controlled clinical research as a neutral or theory-blind measure of qigong's purely practical effectiveness.

Some qigong researchers argue that in addition to the evidence produced in clinical trials, a biomedically palatable theoretical model to explain qigong's mechanism of action must be found before qigong can really be accepted into mainstream medicine outside of East Asia. The advent of qigong trials has spurred much collaboration between qigong practitioners and biomedical researchers, which has led to a number of new models for qigong's effectiveness, each of which attempts to strike a compromise between strictly biological and strictly traditional models of the human body. Gloria Yeh, a medical internist at the Harvard Medical School, completed a controlled study of the effects of 12 weeks of tai chi (a form of qigong) on patients with chronic heart failure, and she used the findings from this study to explore possible mechanisms of action for the effectiveness of qigong treatment (Yeh *et al.* 2003). In an interview, Yeh explained that the results of the trial were promising and led her to develop two preliminary ideas for explaining qigong's mechanisms of action in the treatment of chronic heart failure patients (Yeh 2004). One very hypothetical explanation, Yeh proposed, is that qigong influences the patient's autonomic tone. According to Yeh, heart failure patients suffer from a neuro-hormonal imbalance, which causes the sympathetic part of the autonomic nervous system to be too active. Based on current research in mind-body therapies, Yeh

suggested that it might be possible to understand tai chi/qigong as a means of changing a patient's autonomic tone, or bringing the sympathetic and parasympathetic portions of the autonomic nervous system back into balance. In an early study of heart failure patients, Yeh employed exploratory outcome measures – B-type natriuretic peptide (BNP) levels and heart rate variability – that she had designed to demonstrate changes in the autonomic tone. Although she admitted that these measures are only possible secondary indications of shifts in autonomic tone, they are what she calls the “up-and-coming” avenues of research in mind-body studies. Using a new diagnostic tool called the “respirtrace,” Yeh also intends to investigate the influence of tai chi practice on patient's breathing patterns, which she sees as another potential explanation for the mechanism of action.

Yeh's research demonstrates the ways in which qigong is becoming intimately involved with biomedicine through clinical trials. Not only are the research methodologies of mainstream medicine (randomized clinical trials) contributing to new knowledge and practices in qigong, qigong is also helping to shape the future of biomedicine, through the development of new technologies and new ways of understanding illness processes.

A New Type of Global Form: Re-Thinking Globalization in the New Modernity

By examining the paths of emergence by which qigong is gaining a global presence in the modern world, it becomes clear that qigong's process of globalization is different from that of technoscience and capitalism, even as depicted in the more complex accounts offered in *Global Assemblages*. First, qigong is going global in an era Giddens calls “the first global society” (1994: 96). Its global spread builds on a terrain already deeply seeded with technoscience, capitalism, and assemblages of other global forms begun during the development of traditional modernity. Qigong follows the trails created by the networks of these existing global forms, yet it also makes use of the gaps that have been left in their wakes. New desires and forces push the spread of non-modern, non-Western global forms like qigong, which are different from those that power the spread of the global forms discussed by Ong and Collier. Whereas Latour and Giddens argued that the global forms of traditional modernity established a global presence specifically because they were modern and rational, in the U.S. and the U.K., the demand for qigong seems to derive from what are perceived as its *non-modern* qualities. Although qigong is not a global form in the sense of the foundational elements of traditional modernity that Ong and Collier describe, its acquisition of an increasingly global presence suggests that, in the new era of modernity, it may not be appropriate to view studies of globalization as examinations of the spread of “universally significant” rational, modern, Western social forms. The spread of global forms such as qigong suggests the need for new models for the emergence of global forms in today's world.¹⁰

Qigong uses the existing networks laid by elements of traditional modernity to achieve global presence and significance. The activities of patient and practitioner support groups and advocacy organizations that have promoted qigong internally have made use of the global networks established in part through the spread of social forms of traditional modernity, such as capitalism and neoliberal governance (Novas and Rose 2000). The social organizations of laypersons, patients, and professional healers that made possible the creation of the U.S. and U.K. national centers for CAM research profited from the “time-space distancing” of modern life (Giddens 1991), as well as by shared disease categories, shared discourses of reflection of conditions of modern life, and shared communication devices, such as the Internet. Cancer patients, qigong practitioners, and other groups were able to foster solidarity and work together on national and international scales to get qigong and other non-conventional therapies recognized by major research institutions and government health officials. The mobility of qigong instructors also illustrates the ways in which the spread of qigong is dependent on the foundations of “global society” set forth in the earlier period of modernization. By making use of technologies of communication and transportation, personal networks of relationships that stretch across countries and continents, and existing international institutional structures, qigong practitioners have been able to learn their skill and set up workshops, studios, and academies internationally.

The highly standardized, widespread, and organized system of randomized controlled clinical trials has provided qigong with an internationally-accepted instrument for communicating with high-level health officials and medical researchers. Clinical trials are part of a larger project of “evidence-based medicine,” which has attempted to consolidate medical research and standardize the ways in which healthcare decisions are made around the world (EBM 2003). Evidence-based medicine is a set of procedures for conducting medical research, for comparing and consolidating results, making the results available to wide publics, and turning the results into practice through legislation and physician behavior. The network of evidence-based medicine, which includes clinical trials, databases, journals, websites, training programs, administrative structures, and experts makes up what Latour would call an “immutable mobile,” in which clinical trials serve as important “calculating centers” (Meulen and Dickenson 2002; CC 2004). By plugging itself into the network of evidence-based medicine, through clinical trials, qigong and information about qigong begins to move into the channels of medical knowledge and practice.

It is precisely in these clinical trials, however, that the differences between qigong and the global forms of technoscience and capitalism become clear (Adams 2002). Much like Elizabeth Dunn's Polish meat-makers and their tastes for fatty sausage, qigong supporters are not happy to fit qigong into the standards set forth by the globalizing system. Clinical trials were initially designed to test discrete, highly transferable, precisely repeatable interventions, i.e. pharmaceutical drugs and surgical therapies. Qigong is not a pill, its supporters say, and it does not fit nicely into the

schemes designed to test pills. The fact that qigong comes from a different "paradigm of healing" is just one of many difficulties for conducting clinical trials of qigong, as the experience of qigong researchers has shown. To achieve what are considered by the international research community to be high standard results, a clinical trial should include a placebo group, or a set of study participants who receive an intervention that seems like the real intervention but does not contain the active ingredient. In the case of pharmaceutical trials this would be a sugar pill. However, the question arises, as with many other CAM therapies, of how to create a placebo for qigong, a therapy for which the crucial "active ingredient" or mechanism of action (enhancement of qi circulation) is not acknowledged by the theoretical foundations of biomedicine. Additionally, good trials require blinding, or the guarantee that practitioners, patients and/or collectors of data do not have access to information about which patients in the trial are receiving the treatment and which are receiving the placebo (Anthony 1993). Blinding qigong practitioners and patients, because of the nature of the pedagogical relationship involved in qigong, many argue, is difficult or impossible to achieve. Finally, practitioners and the trial designers must agree on common diagnoses of disease to design patient groups and definitions of efficacy to design trial procedures. Because of the inherent differences between healers and medical systems this is a difficult task in the case of research on qigong (Mason *et al.* 2002).

The demand for CAM therapies like qigong in the new era of modernity derives from the widespread impression that qigong is different from biomedicine and that it meets a need that is created by the specifically "modern" nature of life in a global society. As is mentioned above, there exists a widespread belief among CAM proponents that qigong is "holistic" therefore can solve problems not addressed by inherently "reductionistic" approaches of biomedicine. Because of the reductionist nature of biomedicine, many argue, mainstream biomedical physicians are not able to effectively treat illnesses that involve mind-body processes or complex relationships between biology, psychology, and environment. This perceived gap in the effectiveness of biomedicine creates a perceived need and desire for CAM therapies such as qigong. Alfred Tauber, Director of the Center for Philosophy and History of Science at Boston University and practicing hematologist, describes the phenomenon in this way:

The laboratory context [of post-19th century medicine] replaced the integrity of the individual with a different standard of fragmenting analysis... The repercussions of this movement away from a holistic approach to one that celebrated the reductive scrutiny left medicine with a deep contradiction... Alternative medicine appeals to this deep, metaphysical yearning for wholeness, and, in this sense, the crisis biomedicine is facing, (namely, the challenges posed by alternative therapies) represents an accounting for its neglect of this broader human need (Tauber 2002: 179-80).

Tauber recites a well-worn narrative in CAM circles in which modern science is understood to produce a "deep, metaphysical yearning for wholeness" that leads humans living in modern society to "need" non-biomedical forms of healing.

This discourse of holism found in conversations about CAM is repeated in the language of qigong advocates. The arguments made by qigong's supporters suggest that qigong cannot become global in Latour's sense of the "immutable mobile" because it is not immutable, mobile, and combinable. The strongest advocates of qigong argue that qigong involves complex embodied knowledge that is holistic and not reductionist and that for this reason it will never fit perfectly into the categories or modes of practice offered by biomedicine. Therefore, these proponents argue, the specific essential elements that make qigong powerful cannot be recorded, calculated, or quantified in the ways that modern biomedical science demands. Qigong is a process of cultivation, an organic and unstandardized way of working on the self that cannot be reduced to calculatable, loggable, and combinable tracings or understood in terms of isolatable active ingredients or mechanisms of action. In order for qigong to be an immutable mobile, it would have to acquire the qualities of mobility, stability, and combinability, which would require it being reduced to its component parts. Yet, the proponents of qigong argue that if such a thing were to happen (if qigong were to be reduced to its essential parts), the power and efficacy of qigong would disappear.

The arguments made by many qigong advocates also imply that, in addition to not being mobile, stable, or combinable, qigong is not, and cannot be made into, Giddens' model of the "expert system." In order for a healer to be effective, many qigong supporters say, the healer must attain a special status for the patient which is not limited to her role as a physician with expert knowledge. The practitioner must build a special social and personal connection with the patient. Su Mason *et al.*, in an important *BMJ* article on evaluation of complementary medicine, describes this vision of the healer as the following:

As well as promoting wellness, some complementary medicine contains a philosophy that everything is interconnected, and consequently intrinsically bound up in a therapeutic relationship between the individual and practitioner... *The practitioner is explicitly recognized as a component of or a contributor to the treatment.* (2002: 832-3 emphasis added).

This idea that the healer is an inherent part of the cure fits closely with Giddens' description of the guardian, not with the expert. The patient-practitioner relationship is central to the healing process in qigong, as with many CAM therapies, and at times the practitioner may be seen as an intrinsic component of the treatment intervention. This poses a problem for clinical trials because it means that the healer is not separable from the intervention being tested and therefore cannot be separated out from the active ingredient through processes such as blinding or placebo tests. This feature also poses a problem for understanding the global spread of qigong in terms of

expert systems. In the eyes of CAM supporters, qigong practitioners are guardians, not experts, and if they were to become experts, the qigong therapy would presumably be less effective, less desirable, and less likely to attain global significance.

Conclusion

The emerging global significance of qigong presents a paradox if globalization is only conceived of in terms of the territorialization of the modern, Western social forms. The case of qigong reveals the possibility that domains of activity not qualified for global spread in models of "traditional modernity" nevertheless attain global presence in a stage some call "new modernity." On the one hand, qigong reaches global audiences because it is able to move through existing global networks and fill the gaps that create demands for the non-modern in a modern society. Stress and overwork caused by capitalist conditions of life lead to a desire for qigong as a relaxation technique. People concerned that biomedical healing is too reductionist supplement mainstream healthcare with holistic therapies. It is not accidental that the American Qigong Association calls qigong both "ancient" and "for today's lifestyle" in its website slogan. The increasing popularity of qigong seems to suggest that a strong desire for tradition exists in the new modernity and that this desire is one of the driving forces for new processes of globalization.

On the other side of the paradox, however, supporters of qigong worry that unless qigong acquires qualities of rationality and mobility that characterize the kind of global forms discussed in *Global Assemblages*, qigong will not be able to obtain truly universal significance. They worry that unless qigong is able to fit into the standards of the clinical trials, it will not be able to prove legitimate in the eyes of biomedically-minded health policy-makers and insurance companies. Those who want to make qigong accessible to wider audiences around the world support clinical trials because they have the power to make qigong legitimate in the eyes of biomedical institutions. Yet, there are those who worry that turning qigong into a mobile, stable, combinable form will destroy the qualities that make it so desirable in the first place.

Social scientists and historians have offered numerous accounts of resistance to the spread of modern social forms (Comaroff and Comaroff 1991; Bauer and Bell 1999). In Dunn's account of the application of ISO standards to Polish meat markets, she shows how "gray markets" persist in Poland where fatty sausage that do not meet the standards can be bought and sold (2004: 188-9). The case of qigong emerging in global realms seems to be different from these stories of resistance, however. Qigong is profiting from discourses of resistance against the major players in globalization (capitalism, technoscience) while it simultaneously benefits from their institutions and networks. The same people who want qigong to become universally significant insist that it maintain the qualities that limit its success in clinical trials. The question of whether non-modern social forms such as qigong can obtain universal significance

rivaling that of technoscience and capitalism without such alterations remains unanswered.

In his essay "The Reinvention of Politics: Towards a Theory of Reflexive Modernization," Ulrich Beck proposes a vision for how the traditional modernity characterized by Weber's *zweckrationalität* may soon be replaced by a new stage of modernity which he calls "reflexive." This new modernity will evolve through mechanisms of instrumental rationality inherent in traditional modernity but will produce risks that cannot be resolved by the logic that produced them. Beck writes,

If simple (or orthodox) modernization means, at bottom, first the disembedding and second the re-embedding of traditional social forms by industrial social forms, then reflexive modernization means first the disembedding and second the re-embedding of industrial forms by another modernity (1994: 2)

According to Beck, the problems of simple modernity will be recognized at the level of public concern, but institutions of political and social jurisdiction will not be able to resolve them and as a result political machines will become stalled by uncertainty. Concerns about risks such as ecological crisis or over militarization will reach a point at which expert systems of technoscience fail to produce answers.

Uncertainty is an inherent feature of Beck's vision of the new modernity. Experts become self-critical and critical of each other, and they enter into conflicts over matters that cannot be resolved using the logics of their expert systems. This process is what Beck calls "the self-opening of the monopoly on truth" (1994: 25). Systems of jurisdiction, decision-making, and expertise are opened up to public scrutiny and self-examination or "reflexivity" (6). Reflexivity is the process of confronting risks resulting from simple modernization, and in Beck's view this process—what he calls "reflexive modernization"—eventually leads to social change.

Qigong's global emergence as a non-modern social form participating, if clumsily, in randomized controlled clinical trials seems to illustrate the processes of Beck's reflexive modernization at work. The large-scale market demand for qigong, what Tauber called a "deep metaphysical yearning for holism," reflects ambivalence about the health risks of modern life and the limits of biomedicine. The gap in global society that allowed qigong to slide into the expansive networks of science and capitalism was the same gap that reflexive modernity had opened up with its self-criticism and uncertainty about expert systems. When qigong supporters simultaneously insist that qigong cannot be altered to fit the standards of clinical trials and put it through trials anyway, perhaps they are not compromising their goal to make qigong globally significant, rather they are making use of the power of global forms in order to undermine them. In doing so these processes may slowly also be changing the nature of that network. Perhaps advocates of qigong recognize the

fundamental questioning of experts that is happening as a result of reflexive modernization and see that qigong may be able to retain its traditional qualities *and* attain global significance. By simultaneously resisting and participating in the legitimating mechanisms of biomedicine, the qigong supporters may be finding a route that will let qigong emerge – as a non-modern global form – in a new modernity marked by new forms of rationality, expertise, and standards for legitimization of truth.

Notes

1. The title quote is drawn from literature from the American Qigong Association. <http://www.eastwestqi.com/aqa/>

2. Ong and Collier are not clear on where the distinction lays between assemblages and global forms. It seems they treat stem cell research itself as a part of the global form of technoscience, although studies of particular disputes, research projects, etc. are considered studies of assemblages of the global form of stem cell research.

3. A large body of literature in the field of science studies refutes this argument about the inherently universal nature of modern rational technoscience. See, for example, Latour (1988), Marglin (1990), Haraway (1991), Harding (1998).

4. Ong and Collier acknowledge that Weber discussed two different concepts of universality and that they draw on both, most significantly the idea that modern rationality is applicable to all human knowledge and society regardless of cultural conventions.

5. See, for example, Inda and Rosaldo (2002). They refer to this view of globalization as the “cultural imperialism” approach and site an array of recent anthropological research that has brought this approach into question.

6. This project was funded in large part by the Harvard-Cambridge fellowship.

7. Political movements such as Falun Gong also contribute to qigong’s growing international presence.

8. For an overview of the New Age movement and its ambivalent relationship to traditional modernity, see Heelas (1996).

9. This selection of trials captures one of several major conversations in qigong research, how qigong may be able to help reduce falls in the elderly. It is representative of other areas of qigong research such as studies of heart disease and qigong in that the concept of qi energy remains completely absent in the debates.

10. It should be reiterated that this is call for a new approach to globalization has been made repeatedly by other scholars. The present article responds specifically to influential new

work in the anthropology of globalization that seems to ignore these calls and examines the theoretical foundations of that new work in order to point out its limitations.

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