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Conceptualizing Hybridization

On the Diffusion of Asian Medical Knowledge to Germany

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abstract: Scholars have explored a broad range of topics affected by the dynamics of globalization. The field of 'medicine', however, has largely been neglected, even though there is a long history of transcontinental diffusion of medical knowledge. This article aims to analyse the latest episode in medical globalization: the diffusion of Asian medical knowledge to the western world. Twenty-nine semi-structured interviews with German medical doctors who are practising either acupuncture or Ayurveda were conducted in order to assess the ways in which the adoption of Asian medicine changes medical practice. As hypothesized about the cultural consequences of globalization, hybridization of a number of orthodox as well as heterodox modes of treatment was most common among participants. The researchers, therefore, attempted to break down the rather vague term 'hybridization' into several types of hybridization. Finally, a second look at homogenizing processes in medical globalization was taken.

keywords: acupuncture ♦ Ayurveda ♦ globalization ♦ heterodox medicine ♦ hybridization

Introduction

In attempting to define globalization, scholars often list all those areas in which the world has become increasingly interconnected. One example:

> Nowadays goods, capital, people, knowledge, images, crime, pollutants, drugs, fashions all readily flow across territorial boundaries. (McGrew, 1992: 65)

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In these apparently exhaustive lists, 'medicine' hardly ever appears. This is striking, as there is a long history of transcontinental diffusion of medical knowledge. In antiquity, Indian, Persian and Greek medical concepts seem to have influenced each other. This expansion along trade routes – a version of 'thin globalization' as expressed by Held et al. (1999) – leads to parallels in these medical systems. From the 18th century on, European medical knowledge reached out to more and more parts of the world. Colonial administrators as well as Christian missionaries tried to overcome and replace what appeared to them to be superstitious and magical beliefs of local populations. This process is far from complete, even though the agents might have changed: it is now national governments, the World Bank, pharmaceutical companies and developmental organizations that contribute to the further expansion of biomedicine to all corners of the world. Therefore, globalization of medical knowledge appears to be another episode of westernization, suppression of local knowledge and 'Coca-Colanization'. However, biomedical concepts are taken up in a multitude of ways and become indigenized (Nichter, 1980). In addition, the flow in the opposite direction is increasing: Asian medicine, particularly acupuncture, has become popular among physicians and patients in the western world. This becomes evident when we look at the quantitative distribution of physicians in Germany (see Table 1).

Membership in the largest professional organization of German medical acupuncturists (DÄGfA) is as great as the numbers of naturopathic and homeopathic physicians together. The position of Ayurveda in medical practice is – despite the current media presence in Germany – comparatively marginal. Some hundred physicians are part of the Maharishi Ayurved-organization,[1] which includes health centres, a network of physicians, Ayurvedic training as well as the distribution of Ayurvedic drugs. Another 10 physicians use Ayurveda in their practice.

So while the quantitative aspects of Asian medicine in Germany are relatively well known, it remains unclear how medical doctors are integrating and 'glocalizing'[2] this kind of medical knowledge. Which

Table 1 *Distribution of Heterodox Physicians in Germany*

Physicians in Germany (total numbers)	approx. 287,000
In their own practice	approx. 117,000
Society of Physicians for Acupuncture (DÄGfA)	approx. 11,000
Central Council of Homeopathic Physicians	approx. 3,000
Central Council of Naturopathic Physicians	approx. 8,000
Ayurvedic physicians	approx. 110

Source: Stollberg (2001: 67).

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combinations of biomedical, Asian and other heterodox medical concepts can be observed? What are the criteria guiding physicians in their medical decisions, and are there new modes of medical thinking emerging from these processes? These questions are particularly interesting if one looks at the ontologies of Asian medical systems. Health and disease are conceptualized in ways rather strange to biomedicine: In both Indian and Chinese medicine, health is maintained by balancing a set of universal qualities of life. In Ayurveda, there are three *doshas* (*vata*, *pitta*, *kapha*). Any disturbance of these *doshas* will result in mental or physical suffering. Elaborate and extensive systems exist to classify all aspects of human life, which especially focus upon the effects of nutrition and seasonal change on the *dosha*-balance. Therefore, food can be both a potential threat to health and a therapeutic device to rebalance the *doshas*. But there are further modes of therapy in Ayurveda: remedies based on herbal or mineral ingredients and the *panchakarma*-treatment. The latter is based on rather drastic treatments, like induced vomiting, purging, sweating, bloodletting and nose-clearing, which are eventually complemented by oil-massage. Diagnostic procedures include case-taking as well as examining the patient's eyes, tongue and pulse, determining the *dosha*-balance ultimately finding a therapeutic solution.

In Chinese medicine, there are concepts of five elements and *yin* and *yang*. In a state of dynamic balance, *qi* can flow through the body, and health is maintained. Even though *qi* is thought to be an immaterial force, its flow through the human body can be localized on several routes, called meridians, which are attributed to certain organs. Those organs differ greatly from biomedical organs. On the meridians, there are spots in which needles are inserted in order to make *qi* flow smoothly again. Apart from body acupuncture which originated in China, skull-acupuncture was developed in Japan, whereas ear-acupuncture was a European innovation. All those forms soon diffused to China and became popular. Drugs and dietary regulations are equally important in Chinese medicine. Like in Ayurveda, Chinese practitioners examine the tongue, the pulse and enquire about the medical history to find out the reasons behind any disruptions affecting the balance.

This brief introduction can by no means do justice to the complexities of Indian and Chinese medicine, but it shows two aspects important to this study: Asian medicine differs greatly from biomedicine. The integration of Asian medicine in biomedical practice poses a great challenge. It also shows that it is difficult to compare Ayurveda and acupuncture: While Ayurveda is a complete medical system with a collection of conceptual, diagnostic and therapeutic devices, acupuncture is just one element of Chinese therapeutics. Having seen this, we are already in the midst of medical hybridization. Compared to Ayurveda, a stronger

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decontextualization appears to have taken place in the globalization of Chinese medicine. The main aim of this article is to describe the ways in which Asian medical knowledge is recontextualized in the medical practice of German physicians.

Hybridization in Globalization Theory

Looking at the most commonly held assumptions about the consequences of cultural globalization, Holton (2000) distinguishes three hypotheses: homogenization, polarization and hybridization. If we apply them to the diffusion of Asian medical conceptions to Germany, there is no apparent straightforward homogenization of the medical scenery. Usually, the notion of globalization as a homogenizing process goes hand in hand with ideas about the westernization or Americanization of developing countries (Schiller, 1985; Latouche, 1996). In our context that would mean Asian medicine is about to become hegemonic knowledge in Germany and will suppress local, i.e. biomedical conceptions. It would be more reasonable to assume an increase in polarization. Even though we are not dealing with 'clashing civilizations' as in Huntington's (1996) account, globalization of Asian medicine might lead to newly emergent factions and antagonism within the medical profession. There might be conflicting ideas on how to deal with these increasingly popular systems of medicine. Empirical evidence, however, points in the opposite direction: Since the early 1990s, hostility is low: Medical doctors are by and large sympathetic towards Asian medicine and even refer patients (Tovey, 1997; Verhoef and Sutherland, 1995).

The most likely cultural consequence of this kind of globalization is hybridization, that means 'the ways in which forms become separated from existing practices and recombine with new forms in new practices' (Rowe and Shelling, 1991: 231). In our empirical field, hybridization would at least include the combination of Asian medicine and biomedicine, and maybe even more heterodox modes of healing. 'Hybridization' has become a widely used term in the social sciences. In late 19th-century biology, the term was used to describe (mostly undesirable) events of cross-breeding several species (Papastergiadis, 1997). The term has a much more positive connotation in postcolonial studies: Here, 'hybridization' refers to a playful combination of various cultural elements in art and literature, and particularly to the forming of an identity in the context of migration. Scholars like Bhabha (1994), Gilroy (1993) and Hall (1992) attribute the potential of emancipation and subversion to this form of cultural creativity, because essentialist discourses are undermined by boundary-crossing hybrid forms. In other fields, 'hybridization' denotes a specific mode of deterritorialization (Tomlinson, 1999): the previously

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close connection between cultural and geographical space becomes looser when combinations of diverse elements replace an earlier convergence of cultural signs and localities. Once more, social scientists draw up lists to describe these social phenomena: 'mixing, intermingling, combining, mélange' (Tomlinson, 1999: 142), 'criss-cross, crossover, cut-and-mix' (Nederveen Pieterse, 1994: 171). Some authors suggest a somewhat surreal situation, which has developed as a result of the mobility of cultural signs and practices. Examples like Nederveen Pieterse's (1994: 169) 'Thai boxing by Moroccan girls in Amsterdam' or 'Asian rap in London', or Hannerz's (1996: 4) 'Nigerian Kung Fu' or 'Manhattan fatwa' imply that cultural practices are exercised in places where they are not 'at home'. However, these examples do not appear to be particularly well suited for illustrating hybridization. While Thai boxing might well be a hybrid practice, Moroccan girls in Amsterdam who box are not that relevant to hybridization. In these examples, hybridization represents a combination of the geographical origin of the respective cultural practice and the agents and possibly the locality where it is practised.

A popular way of illustrating globalization is the change in food cultures. The expansion of Coca-Cola and McDonald's all over the world, the local adaptations of pizza and the distribution of tropical fruits and dishes can illustrate any hypothesis (Howes, 1996, James, 1996). This just proves the complexity of the underlying social processes. A particularly illustrative example of culinary hybridization is Caglar's (1998) study on döner kebab. Within two decades, this innovation of Turkish-German immigrants has become the most popular fast food in Germany. Several elements are combined: roasted meat (kebab), salad and sauce are filled into bread and offered as a sandwich, which might have been modelled on the American hamburger or the Greek *gyros pitta*. The bread (*pide*) was disassociated from its cultural meaning – it had traditionally only been produced during Ramadan. Döner kebab was marketed as an authentic Turkish product, even though it was virtually unknown in Turkey. However, it is now gaining popularity there as well. Local and diffused culture were intertwined and have lead to cultural creativity. Its elements were detached from their original meaning and reshaped into new cultural forms. While the term 'hybridization' is particularly well suited to describe such creative innovations consisting of (literally) existing ingredients, the term is problematic in that it implies the existence of non-hybridized culture. However, societies without processes of transfer, exchange and transformation are rare. When Elwert (1996) described culture as the social organization of syncretism, he strengthened the idea of culture as open and dynamic structures instead of static and isolated formations. Nederveen Pieterse (1994: 180) talked of the 'hybridisation of hybrid cultures'. If every culture is hybridized, the term loses its significance. The

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term may only still be relevant for challenging essentialist discourses (Rosaldo, 1995). Is the term 'hybridization' obsolete for all other research topics? Not yet. In the following, we try to escape this terminological dilemma by pursuing an empirical path. We break down this rather vague concept into different modes of hybridization. In so doing, the following distinctions might be helpful:

First, what happens to diffusing elements? To what extent are knowledge or objects adopted in their original form, and later contextualized in a certain set of meanings? Or are initial elements already modified and transformed? Sticking to culinary examples, we might call the replacement of beef with lamb or chicken in Indian hamburgers, or mild Asian dishes for European customers 'transformative hybridization'. The diffusing element has to be adapted to local conditions, and an intensive act of adaptation is necessary to make diffusion possible.

The distribution of tropical fruits and vegetables – like the diffusion of the potato from North America to Europe four centuries ago – or the ritual use of Coca-Cola in Latin America (Prendergrast, 1993) can be described as 'contextual hybridization': the components remain fairly unchanged, but are embedded into new patterns of meaning, use and social reference.

Second, an important criterion for hybridity is the intensity with which the constituents fuse. Generations of high school students have written essays on subjects like 'America as a melting pot' or – more recently – 'America as a salad bowl', and these are our topics as well: hybridization as a melting pot or salad bowl? To what degree are the ingredients merging, or are they merely coexisting in unconnected forms?

Third, this leads to the question of the gravitational centre of the newly created form. Which elements are dominating? Are they just complemented by other components? What are the results of either intense or weak degrees of hybridization? Table 2 presents types of weak and strong hybridity in the field of medicine.

Methods

As there are hardly any studies in this area of research, the application of a qualitative, explorative research approach seemed most appropriate for this study. By conducting semi-structured interviews with open-ended questions being handled flexibly, it was possible to achieve a certain degree of comparability, which was nevertheless open to any unexpected categories. Physicians practising acupuncture were selected randomly from two different lists: the Yellow Pages Berlin, and the list of the largest professional organization, DÄGfA. While interviews with medical acupuncturists were exclusively conducted in Berlin, we had to proceed differently for Ayurveda, because the density of Ayurvedic physicians in

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Table 2 *Types of Medical Hybridity*

Degree of hybridization	Gravitational centre: Biomedicine	Gravitational centre: Heterodox medicine
Weak	• Complementing biomedical practice with Asian medicine • Criteria: biomedical disease category; patients' demands • No further meta-theory	• Complementing heterodox medical practice with biomedical procedures (at least diagnostics) • No further meta-theory
Strong	• Inclusion of Asian medicine into biomedical paradigms • Use of Asian medicine in predominantly biomedical practice	• Loose combination • Fusion of all conceptual ingredients into universal model of medical theory and practice

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Germany is low. In order to study differences between Maharishi-orientated and other Ayurvedic practitioners, we included them in equal numbers in the sample for this study, even though this is not representative of the situation in Germany. Half of the physicians interviewed were therefore selected from an address list on the Maharishi-Ayurved website, while other interviewees were tracked down all over Germany.

In both these groups, there was a participation level of 100 percent. Physicians explained their readiness to be interviewed by saying they were 'doing it for Asian medicine which they love so much', or to 'increase public interest'. Because of these motives, it was – even more than in other empirical studies – important to pay attention to processes of social desirability and self-presentation during the designing, data collection and analysis phases.

This sampling procedure lead to 14 interviews with medical acupuncturists, and 15 with Ayurvedic physicians. They were conducted in the physicians' practices, and lasted between 35 and 85 minutes. Half of the acupuncturists interviewed worked within the German system of public health insurance companies, while the other half were practising privately. It is not possible, however, to seek reimbursement for Ayurvedic treatment from health insurance companies. Four out of the 15 Ayurvedic physicians interviewed focused almost exclusively on Ayurvedic therapy. All of them needed another part-time job to earn their living. All interviews were documented by a tape recorder, then transcribed and analysed by using cross-case as well as individual analysis.

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Hybridization of Asian Medical Knowledge in Germany

Type I – Biomedically Dominated Coexistence

In this first type of medical practice, the degree of hybridization is weak, and biomedicine represents the gravitational centre, i.e. most patients are treated by biomedical means. Asian medicine is merely extending the therapeutic arsenal, while biomedical practice remains the dominant mode of medicine. Physicians do not reconcile the conceptual tensions of their various treatment options, but let them coexist alongside each other. Choices between these treatment models are determined by biomedical disease categories. While physicians of this type will resort to biomedicine in most cases, they apply Asian therapeutic techniques in well defined areas:

> I believe that Western and Eastern medicine should complement each other. Both have their areas of application. (Medical acupuncturist 3)

Physicians prefer Ayurveda for chronic-degenerative diseases in general, and for rheumatic and psychosomatic conditions in particular, while acupuncture is the treatment of choice in cases of chronic pain, migraine and back pain.

Physicians of this type combine biomedical disease categories with Asian therapeutics. In the case of acupuncture, this procedure is implicitly promoted by health insurance companies, as they only reimburse their patients suffering from chronic pain. Thus, it is not surprising that we find this type of practice more frequently among physicians offering acupuncture (N = 6) than among Ayurvedic physicians (N = 3). The proportion of the entire practice represented by Asian medical practice rarely exceeds 10–15 percent among those physicians.

The demands of the patient also constitute another important criterion in choosing medical systems:

> Ideally, the respective medical traditions would complement each other beautifully, but on the other hand, you have to realize that some patients want this, and others want that. Many of them prefer to swallow some pills, and keep drinking their beer and having their sausages without changing their lives in any respect. (Medical acupuncturist 5)

> If people ask for it, I do what can be done within the tight framework of public health insurance. There are some simple things – like aspects of diet – which become a lot clearer than in European naturopathy, and these will be included. (Ayurvedic physician 1)

Hybridization in the practice of physicians of this type is minimal: Biomedicine is dominating their practice, and it is complemented by a

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few pieces of Ayurvedic dietary advice, or the occasional insertion of needles. It is questionable whether it is adequate to label this mere coexistence as a form of 'hybridization'; but we decided to do so, because physicians introduce criteria by which they orientate their practices too. Physicians are structuring their practice according to biomedical models (disease categories), and/or consumerist models.

Type II – Coexistence under Heterodox Dominance

Similar thoughts guide physicians of this second type. However, biomedicine is only of minor significance. Most of them practise more than two heterodox modes of treatment. Acupuncture is often combined with neural therapy, chiropractice, herbalism or homeopathy, while Ayurvedic physicians apply homeopathy, herbalism and acupuncture. In very specific situations of severe, acute diseases, all of these physicians resort to antibiotic drugs:

> Biomedicine matters, at least when I need a strong and quick solution. I still prefer biomedicine in cardiovascular conditions. Hypertension is something where I don't mess around needling or cupping for too long, but where good old beta blockers are doing their job. And – if it is really necessary – antibiotics in cases of hefty inflammations, acute stuff. Then I use it, but as a therapy on its own it does not exceed 5 percent of my practice. (Medical acupuncturist 13)

> It has always been my central principle to prescribe what I would take if I were in the patient's shoes. Let's say: Someone suffers from an acute prostatitis. Of course, it is possible to treat that in an Ayurvedic manner, but if you go for antibiotics right away, you will be successful more quickly. Therefore, I don't want to withhold the antibiotics. Afterwards, I will treat by Ayurveda, and thus eradicate side-effects. (Ayurvedic physician 11)

Physicians of this type greatly appreciate biomedical diagnostic methods. Even though it doesn't provide any information for Asian therapeutics (*dosha*-imbalance, *qi*-flow), it is highly esteemed as an informational source for making the decision between orthodox and heterodox medicine. It also helps to rule out dangerous diseases which might not be discovered by Asian diagnostics:

> I don't want to practise naively. There are fairly good diagnostic methods, and sometimes I prefer to double-check by looking at biomedical test results, like blood tests, ultrasound, x-rays – things like that. I believe this is one of the quite useful things about biomedicine, so I don't keep treating patients who are much better helped by biomedicine. (Ayurvedic physician 12)

> For me, acupuncture is conditional upon there having been decent diagnostics beforehand. I never insert needles to anyone coming here, saying: 'I've got this and that – what are you waiting for?' (Medical acupuncturist 12)

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Eight Ayurvedic physicians follow this type of practice. It appears to be impossible to reconcile this type of medical hybridization with the framework of public health insurance: all four medical acupuncturists of this type work in private practice.

Type III – Biomedical Incorporation of Asian Medicine

While type I and type II physicians practise rather loose combinations of heterodox and orthodox medicine, we now turn to forms in which the various concepts blend together. According to our logical framework, the first alternative is the inclusion of Asian medicine in biomedical paradigms. Its efficacy is not explained by Asian, but by biomedical concepts:

> There is feedback in the brain which triggers the selective distribution of opiates. Reflexes are triggered and a selective relaxation takes place – particularly in muscular and orthopaedic conditions. I don't think it would be too difficult to prove that scientifically. (Medical acupuncturist 2)

We found only one physician from our interviewees practising such a method of including Asian medicine. But this pattern is dominant within the sociology of heterodox medicine. Firmly rooted in a traditional doctor-sceptic sociology of health and illness, scholars like Saks (1992) criticize the medical profession for countering the 'heterodox challenge' by incorporating Asian medicine in biomedical models in this manner. However, these studies are not based on interviews with practising physicians, but rather on publications of the professional organizations. While the scientific explanations in these publications are used for teaching and for increasing societal acceptance of Asian medicine, they remain almost irrelevant for practising physicians. For a number of participants, the realization of the healing mechanisms of Asian medicine doesn't matter that much anyway. Clinical legitimacy dominates over scientific legitimacy: 'He who heals is right' (medical acupuncturist 8).

Type IV – The Great Medical Melting Pot

As a result, intense hybridization of Asian medicine only happens in practices with a focus on heterodox medicine. Conceptual tensions between Asian medicine and biomedicine are resolved by heterodox means:

> I can also explain the efficacy of homeopathic remedies from a Chinese perspective. And many antibiotic drugs are actually fungal drugs and there are fungal ingredients in Chinese drugs as well. Over here, they are broken down into categories of effective agents. Therefore, it is easy to forget that the actual antibiotic effect was already known in China – not by chemical definitions, but with this whole complex range of other components which might even reduce the side-effects of the drug. (Medical acupuncturist 1)

> It even happens with biomedically treated patients that I find myself typing:

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'A typical heat-syndrome'. My receptionists know that by now. At first, they were a little horrified when they read: 'Tongue' – 'Tongue?! In orthopaedics?! And pain along the so-and-so meridian?!' I don't keep that separate. Why should I? (Medical acupuncturist 4)

These physicians do not only have to integrate Asian medicine and biomedicine into one model of treatment, but they deal with up to 10 different traditions of healing. The heterodox ingredients used are similar to those of type II physicians, but there are new principles structuring their medical practice:

I combine acupuncture with other modes of treatment – homeopathy or bio-resonance – in 80 percent of my cases. I use Chinese concepts – like the five elements or touching the meridians – for everyone. I decide later whether to insert needles or proceed differently. Right now, I avoid it whenever possible. There will always be thorough case-taking and examination, where I look at the energetic status of the patient. This is always first. And you can also discover disturbances by bio resonance, and treat by magnetic field therapy right away. Let's assume a patient comes along with a lumbago. If it is very bad, I will reduce pain by biomedical means. As soon as he is better, I will try to stabilize him with ear- and body-acupuncture and go for homeopathic case-taking to find a good remedy. This is all done more sequentially than simultaneously. I switch systems when I realise: 'All right, it can be more gentle now. And there you can say: biomedicine has deep, but short-term effects. Acupuncture's effect is moderate and medium-term. Homeopathy is gentle and long-term. And whenever possible, I will prescribe homeopathic remedies. If it becomes more acute, I will insert needles, and if it becomes really hefty, biomedicine comes into play. I always say: 'Acupuncture is the most surgical natural medicine.' You are entering the organism – that hurts (!) – with a needle and you are pushing it around. You are in the closest contact with the patients' *qi* and I don't like it that much. (Medical acupuncturist 9)

There is a hierarchy of gentleness, combined with the speed of therapeutic results. These two factors appear to be mutually exclusive: Gentle healing cannot unfold quickly, and speedy recovery requires drastic intervention. These criteria form a meta-theory guiding the hybridization of several medical systems. It is remarkable that these methods of treatment are applied in sequence, not at the same time. In Ayurveda, we find similar concepts. Some physicians unite all these medical systems under Ayurvedic principles:

My whole way of thinking is primarily Ayurvedic. But there are areas, where you get quick results through simple measures. Homeopathy can be a very elegant method for children. I also practise acupuncture for specific diseases, herbal medicine, chiropractice, and at times oxygen-therapy for serious diseases like cancer, as well as sound and colour therapy. Ayurveda means the whole knowledge of life, and that also means to have commanding knowledge

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> of the body and its state. Ayurveda doesn't mean 'Indian' or that you have adopted a system. Ayurveda is not even Indian, but a comprehensive knowledge of life itself, i.e. checking where diseases are located in the body and taking a look at it. This all goes along together very nicely. To give an example: arthritis in the knee-joints, which you verify by x-rays is – from an Ayurvedic perspective – primarily *vata*,[3] and then this is confirmed by x-ray – it fits very nicely together. (Ayurvedic physician 14)

> I not only practise Ayurveda, I have studied many different traditions. I have my own laboratory where I practise alchemy and where I edit my remedies by means of spagyrics. I enjoy diagnosing by measuring the pulse. You know the three principles: *vata*, *pitta*, *kapha*. I can also find out your Ayurvedic constitutional type by RAC, physioenergetics or kinesiology, and I can then prescribe western remedies accordingly. (Ayurvedic physician 8)

Three Ayurvedic physicians in our sample – all of them within the organization of Maharishi-Ayurved – practise this type of intensely hybridized medicine, as well as four acupuncturists, who – unsurprisingly – work in private practice.

Transformative and Contextual Hybridization

Let's turn back to the distinction between transformative and contextual hybridization. In the former, we deal with the extent to which physicians modify Asian medical knowledge and practice. First of all, it is striking that Asian remedies are rather seldom used in Germany. This is due more to organizational than to medical factors: participants report cooperation with Asian manufacturers to be difficult, long-term storage impossible, and German pharmaceutical laws restrictive. Therefore, dietary advice becomes therapeutically more important. The way *panchakarma*-treatment is administered at Maharishi's health centres has been seriously disputed: In India, this procedure involves several kinds of harsh measures, which in Germany have been reduced to the more gentle and pleasant aspects of the treatment. These have become the essence of Ayurveda in marketing and in the media representation: oil massages, and the application of oil on the forehead. This modification has lead anthropologists to call European Ayurveda a 'flower-power Ayurveda' (Zimmermann, 1992). What are the physicians' perspectives on this glocalization of Ayurveda?

> Western people have become very sensitive, somewhat nervy, so that we don't offer rough treatments. In Maharishi's health centres, vomiting is not favoured and not necessary, because we can have similar success with equally elegant, but gentle measures. (Ayurvedic physician 14)

So it is not a consumerist device that leads to the changes in *panchakarma*-treatment, but a medical one. While there is some focus on the difference

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of Indian and European patients in transformative hybridization, which basically involves decontextualization, we find the opposite argument in contextual hybridization. Some participants don't attach much significance to the fact that Ayurveda originated in India and believe that there are only few cultural barriers to introducing it in Germany. This was implied by the doctor who said that 'Ayurveda is not Indian, but the complete knowledge of life'.

> Ayurveda has been around for much longer than we may think – since the conquests of Alexander the Great in the Indus valley brought Ayurveda here. The belief in the five elements forms the basis of Hippocratic medicine. It might have been reduced to four humours, but it is exactly the same. And what our grandmothers tell us is basically Ayurvedic knowledge – knowledge about what to eat, how to sit while eating. All this is part of us, having arrived via ancient Greece. Therefore we are – thank God! – emotionally closer to it than to Chinese medicine, which is virtually the same. South of the Himalayas, five elements is Ayurveda, and to the north it has been divided into the components of *yin* and *yang*. That's why we are much more Ayurvedic than we think. (Ayurvedic physician 5)

> They tell us that these *doshas* – *vata*, *pitta*, *kapha* – are Indian principles, but it is not as simple as that. In the West, we say 'body, mind and soul'. In alchemy, Paracelsus calls it 'sulphur, salsulphur and mercury'. And if you know that these principles always exist and on all cultural levels, you become much more convinced. (Ayurvedic physician 8)

This kind of recontextualization resembles the fourth type in our typology. For other physicians, it is precisely barriers of cultural compatibility which prevent them from practising Ayurveda more often:

> It is impossible to connect it to the cosmic order, like in the Indian context. You cannot transfer it. I cannot arrange Indian gods in my practice, and I can't even arrange proxies for them. This was one of those illusions I had, that I might take proxies for Indian meta-physics from Greek mythology, in order to build a bridge for the common people by symbols of Greek mythology. But in the end you still expect too much from the patients – and from yourself. (Ayurvedic physician 1)

All our examples of contextual hybridization have been taken from Ayurveda. Indeed, it is difficult to find even one example in acupuncture, as acupuncture does not represent a comprehensive model of healing, but only a single therapeutic device. Physicians do not have to decide whether to isolate certain elements, but rather they select which ones they wish to add to it. Those physicians to which Chinese concepts matter at all make them the guiding principles for all the methods they practise. Only one physician attempts to integrate Chinese and western models by an act of translation:

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> I think any culture has terms for *qi*. ‘Energy’ is probably not even accurate, because of its connection to physics. I believe that ‘vital force’ – or what used to be understood by it – might be much more accurate. (Medical acupuncturist 7)

Homogenization Revisited

After considering all these different modes of hybridization, we would like to turn to an equally relevant question: which aspects of medical practice remain untouched by the inclusion of Asian medicine? There is no dispute among participants that any system of medicine has to prove itself by ‘science’. Acupuncturists tend to welcome future evaluations to promote the general acceptance of acupuncture in western societies. Large-scale studies (N = 100,000) of this kind are being conducted in Germany. These studies are randomized controlled trials (RCT) (Marstedt and Moebus, 2001).

Ayurvedic physicians tend to reject the methodological procedures of RCTs. They argue that the rationale of selecting participants – the shared disease category – is irrelevant to Ayurvedic treatment and that the biomedical division of patients into two groups – the verum and the placebo group – is not adequate for Ayurvedic treatment. One hundred migraine patients might – according to Ayurvedic principles – well receive 100 different kinds of treatment. Instead of that dichotomy, the specific imbalances of the *doshas* in every patient would have to be taken into account. The same reasoning could apply to acupuncture. Nevertheless our medical acupuncturists were not interested in scientific studies in order to clarify their doubts about the efficacy of Asian medicine – experiential knowledge is dominant here. They want clinical trials to be conducted in order to increase public acceptance of Asian medicine and to change the distribution of health care resources. This development does not appear to be limited to the German context. In research on Indian homeopathic and Ayurvedic physicians, it becomes evident that practitioners label their medical system as ‘scientific’ and demand clinical trials. Thus, there seems to be a global process of homogenizing the sources of medical legitimacy that covers different medical systems and wide geographical areas (Frank, 2002a).

Another aspect that remains unchallenged is medical authority in all areas of health care. In Germany, the dominance of the physicians is not challenged by the diffusion of Asian medical concepts. This becomes evident in the limited readiness on the part of medical practitioners to cooperate with non-medical practitioners. In acupuncture, this is more pronounced than among Ayurvedic physicians, but most participants argue that there is an unbridgeable gap between the expertise of qualified medical doctors and that of other healers, which is the result of years

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of academic education and training. This does not go without saying, as non-medical practitioners might well be even better educated in Asian medicine than medical doctors. This may be seen in the case of English, where the number of medical acupuncturists equals that of non-medically qualified acupuncturists,[4] but these interrelationships will be left to further studies.

Discussion

Globalization is a far too complex process to ask whether its cultural consequences are either homogenization or hybridization. It rather seems that a certain degree of hybridization (transformative and/or contextual) is the normal course of events, which doesn't prevent other aspects from being homogenized. Therefore, it doesn't appear adequate to ask whether hybridization is happening in the process of cultural globalization, but rather in which way does it unfold? It is hard to see how processes of transcontinental diffusion could occur without a certain extent of hybridization. This is true for our data as well: None of the participating physicians practises (or even claims to practise) a non-hybrid version of Asian medicine. At least the inclusion of biomedical diagnostics is uncontroversial. It should also be noted that there is neither a pure form of acupuncture in China nor a non-hybrid form of Ayurveda in India. Biomedical knowledge and practice find themselves in long-standing and creative interaction with other medical systems (Frank, 2002b). Which forms will this process of de- and recontextualization of cultural elements take? In the debate on globalization, it often appears that there are no limits to hybridization – anything goes. This would mean that all possible permutations of elements are actually realized. But our data do not confirm this. There is, for instance, no model in which Asian diagnostics lead to a biomedical therapy, and Asian medicine is praised in particular for its therapeutic value. In order to prevent the increasingly arbitrary (and therefore meaningless) use of the term 'hybridization', we tried to outline several types of hybridization, which will hopefully prove useful in other fields of globalization theory as well. Despite that, the description of the globalization of Asian medicine remains far from complete. In this article, we focus on physicians' perspectives, and we neglected political and economic contexts. And it will be another task to look at patients' views, because the clinical consultation is one of the most important arenas in which the actual shape of Asian medicine is negotiated. A look at the forces leading to the globalization of medical culture might also be instructive: It is striking that all darlings of globalization theory are strangely lacking – physicians do not use the Internet, and books appear to be the most modern form of information technology.

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The significance of migration is equally marginal: In acupuncture and Maharishi-Ayurved it is absent, and only three out of the other 10 Ayurvedic physicians in Germany are migrants from India. Only transport technologies that facilitate intercontinental travel and television programmes might be relevant. Additionally, we are not dealing with cultural elements or consumer products striving for global expansion while serving economic and/or political interests. Rather, it appears that factors inherent in western medical culture pave the way for the globalization of Asian medicine. These cultural factors and the patient's perspective will be the subject of our further studies.

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Notes

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1. Maharishi Mahesh Yogi became famous by teaching Indian philosophy to The Beatles on their visit to India in the late 1960s. His combination of Ayurveda with transcendental meditation (TM), however, has attracted the church's attention, who suspect there might be a sect at work.
2. While Robertson's concept of glocalization (Robertson, 1995) has its strengths in describing the global–local interface, it surely has its limitations as well. The term is not helpful for analysing evidence of unadulterated global standardization or cases of outright rejection of global influences.
3. That is,. complaints which are triggered by an excessive prevalence of *vata-dosha*.
4. The information about acupuncturist organizations in the UK has been provided by Mike O'Farrell, chief executive of the British Acupuncture Council, London.

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