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Frontispiece

In August 2010, Ladakh in North India was hit by a natural disaster: cloudbursts, floods and mud slides caused the death of hundreds of people, and destruction all along the Indus river and in nearby areas. The picture shows the situation in the Tibetan refugee settlement Choglamsar the day following the disaster.

(photograph: Nike-Ann Schröder, see article this issue)

Viennese Ethnomedicine Newsletter

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Content

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Medical Anthropology at Heidelberg

William Sax

Beginnings

When I arrived at the South Asia Institute in 2000, my research on ritual healing amongst the lower castes in the Western Himalayas was just beginning. My colleagues at the South Asia Institute suggested that I develop a Program in Medical Anthropology, and I was happy to do so. The university provided generous support, and the South Asia Institute provided an additional Assistant Professor to get the program started. As it happens, I was realizing the realization of the dream of my predecessor, Richard Burghart, who had wanted to establish medical anthropology at Heidelberg before his tragic death in 1994. My first Assistant for Medical Anthropology was Karina Kielmann, and together we organized the conference "Gender, Health, and Politics in South Asia", on 18-19 July, 2002.

Kielmann went on to become a permanent researcher and lecturer at University College, London, and my second assistant was Stefan Ecks. He and I organized a conference entitled "The Ills of Marginality: new perspectives on subaltern health," which was later published under the same title as a special issue of "Anthropology and Medicine" in November, 2005. This issue was recently mentioned by the editor of the journal as one of his favorite numbers ever.

Ecks went on to become lecturer (and now Senior Lecturer) at the University of Edinburgh, and my third assistant for medical anthropology was Mona Schrempf. She took up the theme of medical anthropology with great energy, and has since published a number of articles and edited several books on Tibetan medicine and related topics.

Ritual Healing and the Special Research Area "Dynamics of Rituals"

In 2002, the Special Research Area 619 "Dynamics of Rituals" (SFB 619 Ritualdynamik, http://www.ritualdynamik.de/) funded by the German Research Foundation, began. My interests in ritual healing were well served by this development, and under the auspices of the SFB I published my monograph on the topic (Sax 2009), plus a large number of other articles, some of which are listed below (Sax 2010a, 2010b, 2010c, 2011). Together with colleagues Johannes Quack (see article this issue) from anthropology, and Jochen Schweizer and Jan Weinhold from medical psychology, I published several books and articles that reflect the interdisciplinary nature of medical anthropology in Heidelberg, and of "SFB 619 Ritualdynamik" in particular.

During this period, other doctoral students interested in ritual healing joined our program, including Africanists Ferdinand Okwaro (see article this issue) and Sophie Kotanyi, whose doctoral thesis on integrating traditional healing into HIV-AIDS programs in Africa is eagerly awaited. Another doctoral student who joined at that time was Roman Sieler, currently writing his PhD thesis on Siddha Medicine in South India. Mr. Sieler has conducted impressive fieldwork on this important but understudied topic, and his thesis will focus on the link between healing and martial arts, which is central to the tradition.

M.A. "Health and Society in South Asia"

Mona Schrempf was replaced by Gabriele Alex. Together, Ms. Alex and I began the two-year, consecutive, English-language M.A. *Health and Society in South Asia*, which makes use of the extensive resources of the South Asia Institute to combine interdisciplinary area studies with medical anthropology. Students can learn South Asian languages at the South Asia Institute, along with health-related topics in disciplines like history, geography, politics and religion. Another important resource is the Institute for Public Health (http://www.klinikum.uni-heidelberg.de/index.php?id=5357) under the direction of Rainer Sauerborn, with whom we have always cooperated closely. Students are encouraged (but not required) to conduct fieldwork in South Asia as a basis for their M.A. theses. The first MAHASSA cohort produced

several excellent theses, and most of the graduates are now employed in relevant fields, e.g. Assistant Professor, Jahangirnagar University, Bangladesh; Centre for the Rehabilitation of the Paralyzed, Dhaka; International Red Cross, India and Pakistan; Ärzte ohne Grenzen, Germany; GTZ, Kathmandu; and Clinic Supervisor, Kerala. Two and possibly three of these students will pursue PhDs; selections from one of the theses (on the health problems of undocumented Punjabis) have been published in several newspapers, and the author has been interviewed on German television. The thesis of Genevieve Studer serves as an example of the kind of work that has been produced by our students. (For more on the MAHASSA program, see http://www.sai.uni-heidelberg.de/ethno/mahassa/)

Alex went on to become researcher at the Max Planck Institute for the Study of Religious and Ethnic Diversity in Goettingen, and is now Professor of Anthropology at the University of Tuebingen. She was succeeded by the current Assistant for Medical Anthropology, Constanze Weigl, who is coordinating the MAHASSA program. For our second cohort we received 100 queries and 43 applications from numerous countries, and accepted 17 students from Germany, Slovenia, Italy, UK, Pakistan, Nepal, and Bangladesh. Weigl has provided a sketch of her research plans in this issue.

Cluster of Excellence

In 2005, the German Federal Government inaugurated a nationwide "Excellence Initiative" to improve teaching and research in Germany's universities. Heidelberg was successful with a number of applications, including one for the Cluster of Excellence "Asia and Europe in a global context: Shifting asymmetries in cultural flows", which was established in 2007. One of the four research areas of this Cluster is "Health and environment," and its existence has given a big boost to Medical Anthropology at Heidelberg. We have been able to welcome new colleagues (for example the internationally recognized expert on Tibetan Medicine, Laurent Pordié) and to initiate a number of new research projects: on medical systems in the ancient world, medical tourism in Asia, stress, depression and others. Several of these projects are described in this issue. Interdisciplinarity is central to the cluster, and medical anthropologists in Heidelberg find themselves working together with psychologists, historians, Assyriologists, Egyptologists, geographers and political scientists on topics related to Health and Environment.

Such interdisciplinary work features prominently in the two cluster projects showcased in this issue. Project C5 "Stress and stress-relief" includes anthropologists, historians of medicine, and public health specialists, and strengthens our longstanding cooperation with public health in the Heidelberg region. Project C3 "Mind and body" includes anthropologists, sociologists, historians of medicine, and psychologists, all working on issues of mental health in South Asia. We are particularly proud of our collaboration with Harish Naraindas from Jawaharlal Nehru University in Delhi, who has reversed the usual practice of ethnomedicine ("northerners" conducting research on "southerners") by conducting a study on how Germans understand and utilize Āyurveda.

The Cluster of Excellence has also supported a number of other doctoral students working on topics such performance and healing in Sri Lanka (Eva Ambos), new birth technologies (Sandra Baernreuther) organ transplantation (Sinjini Mukherji) and health tourism (Christoph Cyranski) in India, along with numerous postdoctoral fellows. In 2011 we will host a lecture series including Arthur Kleinman, Annemarie Mol, and others. (For more details on this lecture series, on our research, and on the Cluster of Excellence generally see our website: http://www.asia-europe.uni-heidelberg.de/en/home.html)

Ethnomedicine and Medical Anthropology

Topics like organ transplantation and new birth technologies are not normally the focus of ethnomedicine, and it may seem strange to include an article about type II diabetes in the pages of the Viennese Ethnomedicine Newsletter. Our reluctance to distinguish between ethnomedicine and medical anthropology derives from our conviction that they ought not be separated. It seems to us that in many if not most cases, the distinction rests on the idea that "modern medicine" is simply the applica-

tion of pure science, while those interested in the influence of culture on healing practices are better served by looking at "traditional healing". But this is a false dichotomy. Modern medical science and its various applications are as much embedded in "culture" as are traditional healing theories and practices. In short, it's all ethnomedicine!

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Ritual Healing and Modernity in Western Kenya

Ferdinand Okwaro

Introduction

In the foreword to their book "Magical interpretations, material realities", Moore and Sanders (2001) boldly assert that witchcraft is alive and kicking in Africa not only among the enchanted and downtrodden but also among the educated elite. This was an antithesis to the widespread idea that modernity would eventually efface the practice and influence of witchcraft. The assertion by Moore and Sanders is easily confirmed by a casual stroll in any urban centre in Kenya, where one sees advertisement boards for ritual healers replete with lists of illnesses and problems that they treat. Good (1987) reproduced one such advertisement that he encountered in Nairobi. At the beginning of my fieldwork in Western Kenya, a young man on the streets of Kakamega town gave me a flyer advertising the services of a ritual healer resident in Kakamega. On the 21st of May 2008, local and international press reported a bizarre incident from Western Kenya where members of one ethnic group (the Kisii) lynched eleven suspected witches and razed down over fifty of their houses in one single night.

Such examples suggest that simple models of "modernization" are inadequate. Modernization theorists in the 1950s and 60s borrowed heavily from enlightenment era philosophers, who propounded the idea of progress as a universal historical process leading to a single modernity. Modern societies would be guided primarily by scientific knowledge and attitudes that would lead to, among other things, the progressive eradication of traditional superstitions, prejudices and errors and to the gradual establishment of a republican form of government. In the healing arts, biomedicine was considered as based on scientific knowledge while ritual healing and witchcraft practices exemplified superstition which would be eradicated with the spread of science.

Why then does ritual healing in Western Kenya thrive despite apparent "modernization" and along with it the criticism of ritual healing by modernity's proponents? For Kenya, biomedicine, the state, and the Christian church have been both covertly and overtly opposed to ritual healing.

In Kenya, biomedicine is arguably the most powerful critique of ritual healing, which it characterizes as unscientific or based on non-scientific theories. Although the WHO has encouraged African governments to resort to traditional medicine, this exhortation does not include ritual healing. Kenya has held two workshops with stakeholders in the biomedical and traditional healing sectors to discuss the formulation of a Traditional Medicine Bill that would recognize and include traditional healers in official health care provision in the country. In these discussions held in 2001/2002, biomedical practitioners expressed their reservations regarding the "ethical basis" of ritual

healing, but still welcomed the bill as a way of regulating, controlling and monitoring traditional ritual healers. The biomedical fraternity is however more receptive to herbalists who, as Whyte (1989) observed, fit nicely with the pharmaceutical character of Western medicine and avoid the difficulties associated with practices involving supernatural powers.

Mainstream Christian churches in colonial and post-colonial Kenya characterized ritual healing as the work of the devil. Christians, who constitute over 70% of Kenya's population, were therefore expected to shun both witchcraft and ritual healing which were considered as forms of pagan worship. This position adopted by the mainstream Christian churches led, however, to the formation of many independent churches that were more accommodating, not only of African concepts of ritual healing, but also of other aspects of African culture.

The state also invoked a form of criticism of traditional healing through its various policies. Apart from advocating the policy of legal abstention, the colonial government formulated the Witchcraft Act that failed to distinguish the activities of a ritual healer from those of a witch and proscribed both. Through the policy of legal abstention, the colonial government acknowledged the existence of traditional medical specialists but exempted them from the requirement of formal certification and registration. This policy, according to Okoth-Owiro (1994) denied indigenous medicine the legal, administrative, and institutional resources that were needed for its proper development. Although the Witchcraft Act was formulated in 1925 by the colonial government, the post colonial government amended it in 1968 without changing its fundamental character. Section 4 of this Act outlaws witchcraft when is states: "Any person who of his pretended knowledge of so called witchcraft with the intent to injure, uses or assists to use or causes to be put into operations such means or processes as may be calculated to cause fear, annoyance or injury in mind, person or property or to any person shall be guilty of an offence and liable to the same punishment as is provided for in section 3". (www.kenyalaw.org)

Ritual healing is outlawed by section 6, which states "Any person who accuses or threatens to accuse any person with being a witch or with practicing witchcraft shall be guilty of an offence liable to a fine not exceeding five hundred shillings or to imprisonment for a term not exceeding five years." (www.kenyalaw.org)

My informants in Western Kenya distinguished a witch from a ritual healer. According to them, a witch is a person (male or female) who uses his/her supernatural powers to harm innocent people and property. A healer, on the other hand, was a specialist who uses his/her supernatural abilities to heal the harm caused by a witch. A critical aspect of this healing is the identification, neutralization and/or punishment of the witch. By outlawing the naming of a witch, section 6 of the Witchcraft Act in essence outlaws ritual healing. Most ritual healers thus operate in a zone of frail confidence with some of them occasionally facing litigation from charges of contravening this statute.

Against this background, I set three main questions for my doctoral research. The first one was why ritual healing persists in Western Kenya. This question does not imply that ritual healing should disappear with the advent of modernization. Rather it inquires into the needs that ritual healing meets for the people of Western Kenya. Scholars of ritual and modernity in the latter part of the 20th century were critical of modernization theory's explicitly teleological orientation exemplified by, among other things, the expectation that ritual healing would disappear with the advent of modernity. But it simply has not happened. Ferguson (1999) states that if we look closely at "modernity", we realize that the term is notoriously vague, analytically slippery and susceptible to multiple and sometimes contradictory sorts of invocation. Since it comes with no built in telos, "modernity" once unleashed exploded in different directions as different societies appear to be appropriating it more selectively and applying it in more customized fashion than traditional modernization theory would have expected. This gives rise to what scholars have referred to as multiple modernities. Comaroff and Comaroff (1999) have observed that if we conceptualize multiple modernities, the idea that "progress", "development" and modernity are multiplex, undecidable, and contextually specific, there is no reason to believe that the modernization process would cause the occult to vanish.

My second question was how ritual healing responded to the challenges posed by "modernity" – challenges which include but are not limited to the hegemonic tendencies of biomedicine, emerging needs posed by modernity, the altered economic and social matrix of potential clients, economic necessities etc. This question derived from the observation by scholars that rituals are dynamic and engaged creatively with modern processes. Systems of ritual healing are active; they adapt to scientific or biomedical hegemony, sometimes even "resist" it, and develop new ritual techniques. I therefore sought to find the ways in which ritual healers adapted their healing practices to processes of "modernization". I focused on "practices" rather than "systems" in order to avoid the anthropological temptation of attributing too much systematicity to a set of contingently related practices.

The third question was that of efficacy. From the outset, I took the view like Sax (2010) and Kirmayer (2004) that ritual healing persisted because it did that which it claimed to do; it healed. I therefore attempted to show the ways in which ritual achieved its objectives and how results were assessed by clients, healers and all those involved in the healing process.

To answer these questions, I spent 15 months of fieldwork in Western Kenya observing ritual healers and their clients. I initially visited several healers and obtained their permission to observe their rituals and interview their clients. However in view of the complex nature of the healers' practices I concentrated on only two of them: Francis Shisia and *Mtumishi* Patrick Barasa. This article will, however, mostly feature the activities of *Mtumishi* Patrick Barasa (MB in short).

Mtumishi Patrick Barasa

Mtumishi Patrick Barasa (MB) is a well-known ritual healer who conducts his practice in Kamukuywa location (an administrative term) in Western Kenya. His ritual theory, practice and paraphernalia exemplify a complex hybridization of traditional healing practices and cosmologies, incorporating Christian teachings as well as ritual use of the bible for healing purposes. His title, *Mtumishi*, is normally reserved for Christian preachers and translates as "servant". MB is a member of the Luyia ethnic group that inhabits Western Kenya. Although *Mtumishi* Barasa depends mostly on a traditional Luyia cosmological repertoire to explain illnesses and misfortunes faced by his clients, his healing practice is to a large extent based on Christian practices of prayer and exorcism. The Christian Bible is a central feature of his divining and healing practice, and ideas of disrupted relationships among humans, and between humans and the supernatural forces (including the Christian God) are central to his practice.

MB's ritual healing comprised a set of four complex but related procedures; divination, retrieval and destruction of charms, cleansing and ritual prophylaxis. The most critical part of his healing is the divination process known by the terms "X-ray" or the "courtroom". Every client visiting MB was subjected to "X-ray" session to determine the cause of his/her affliction. I will now briefly describe each of these sessions.

Court or X-ray Session

MB used the terms "X-ray" and "court" interchangeably to refer to his complex divination process. In African healing systems, divination is a critical diagnostic tool that healers employ to discover the hidden causes of their clients' afflictions. In the African etiological system, illnesses are caused by the dislocation of a person from his social, spiritual and natural contexts. To determine which of these contexts were breached requires consultations with a diviner. As diviners, healers are known to possess supernatural abilities that enable them to unravel the mysterious causes of a client's affliction. MB's divination ("X-ray" or "courtroom") sessions were guided by his preternatural abilities to disembody a person's soul and cause it to make confessions in his courtroom. The healing sessions were thus set in the form of a "courtroom" where MB and his clients accused, judged, and punished those they believed had afflicted them.

Prior to the "X-ray" sessions, clients visiting MB underwent a series of mandatory procedures to prepare them. These were: reception and registration by the secretary, payment of a registration fee, and attendance at a church

service before finally getting an appointment for a consultation with MB. In the initial consultation held in his living room, MB attempts to divine a client's affliction by reading images from his open bible and posing what he referred to as a series of 100 questions. He however informs the clients that his divination was temporary and that they would attend the "X-ray" sessions where the true picture of their affliction would unravel. After the initial divination, MB prays for the client(s) and invites them to the "X-ray" session that followed.

The "X-ray" is a public session attended by all clients visiting MB on any one day. It is often held in the afternoon. Clients assemble in the "courtroom" and sit on the benches. MB stands in front of the room facing the clients while the secretary sits on a small stool also facing the clients. The secretary then gives MB a copy of the New Testament whose covers he rips off and casually discards through the window. He then forms the bible into a cylindrical shape, prays over it and places it on a white piece of cloth on the floor. He then leads the congregation in a prayer beseeching and ordering all offenders to appear and confess their transgressions against the clients. Clients repeat the words of the prayers after MB twice, after which he retreats to his living room and the secretary conducts the rest of the proceedings. The secretary leads the congregation in a familiar Christian chorus for between 5 and 10 minutes until "disembodied voices" of people confessing to having committed evil acts against the clients emerge from the bible. The voices state their full names, identify a client in the room and explain what they had done to the client. Where the person afflicting the client acted together with others, they mention the names of their accomplices, whose disembodied voices would also be captured and made to confess. In this way, a complete list of transgressors and their offences is elicited and an appropriate punishment or ameliorative course of action agreed upon by the secretary, often in consultation with the clients. The court sessions were divided into four, the "mention", the "hearing", the "judgement," and finally, the "outcome". Each of these sessions was held on a separate day which meant that a client makes at least four return visits to MB for complete healing. So what happens in these sessions?

The "mention" session is the first stage in the court process. The Kenyan law system also uses the legal term "mention" to refer to the first appearance of accused persons in court where they only listen to accusations leveled against them by a prosecutor without taking a plea. In this session, MB prays over the bible and, as usual, leaves the secretary in charge of the proceedings. After the chorus, voices emerge from the bible and confess their evil acts against the clients or stating their positions regarding a client's afflictions. Clients only listen to the voices from the bible (VFB) as they confessed their transgressions. Witches, for example, confess their witchcraft, people owing money acknowledge their debts, runaway spouses and children state where they are, murderers confess their acts etc. The secretary arbitrates between the VFB and the clients. She also takes notes of the proceedings which she later shares with MB. After this session, clients get appointment dates for the "hearing" session, usually a week later.

In the "hearing" session, the same VFB that appeared in the "mention" appear and restate their transgressions. In this session, clients and the secretary interrogate the VFBs while the voices in turn interrogate the clients, attempting to justify their actions. The secretary remains neutral and interrogates both clients and the VFB. As a "fair" judge, she often castigated clients who in her opinion had acted unjustly. At the end of this session, clients get appointments for the third session known as the "judgment" in which all transgressors are punished for their offences. MB prescribed the following sentences for the different types of offenders: 1) witches and murderers were sentenced to death by ritual burning; 2) people who consulted and contracted witches to kill or hired killers were either made to go insane or were also sentenced to death by ritual burning; 3) those who contracted witches to cause afflictions other than death, e.g. illnesses, loss of jobs, accidents, infertility, etc. had their evil intentions ordered to return to them; 4) runaway children and spouses were ordered to go back to their homes immediately; 5) debtors were ordered to repay their debts to clients; 6) errant husbands and fathers were ordered to support their wives and children; and 7) co-wives were ordered to reconcile and/or desist from witchcraft. This set of rules was however

provisional and was adapted according to the wishes of the client. This made MB's healing very attractive as it empowered the clients to decide the fate of their transgressors. This session was conducted in the same way as the previous two and at its conclusion, the secretary poured kerosene on the bible and sets it on fire (Fig. 1). All clients whose cases had reached the "judgment" stage pay an extra fee for the purchase of a bible and kerosene. This action was expected to ritually transfer the punishment pronounced by the secretary and the congregation to the persons who confessed their transgressions in the courtroom. I found these sessions personally distressing since, while the accused screamed and begged to be forgiven and rescued from the fire, clients just laughed, and rebuked their transgressors in a show of triumph.

Fig. 1: Flaming bible at the conclusion of the "judgment" session

The final session in the "X-ray" process was known as the "outcome" and was held a month after the "judgment". MB expected the various judgments pronounced to take effect within a month. He invited his clients to report back to him at the expiry of one month. Those who had experienced positive outcomes informed MB about them. This was mostly in cases where monies owed had been paid, neighbors had been reconciled, runaway spouses or children returned home, or robbers had been apprehended. Where positive outcomes were unknown or unknowable, the case is re-opened in an "X-ray" session known as the "outcome" where the VFB are recalled to state their condition. In this session, VFB of witches and murderers appeared and stated that they were either dead or sick. Others claimed to be more powerful than MB and vowed to fight back. Where the desired effects had not taken place (witches had not died, wives had not returned, debts were not repaid) MB inaugurated a new round of "courtroom" sessions which culminated in "judgment". Complete healing thus sometimes took months to conclude, and during fieldwork I met clients who frequented MB's healing rituals for several months before their affliction could be fully resolved.

Charms retrieval, cleansing and ritual prophylaxis

The "X-ray" sessions were followed by three other rituals, depending on the affliction facing a client. The first of these was the retrieval and destruction of charms. Charms were objects that witches made using herbs and other "medicines" tied together with items collected from victims to cause illness. A witch may, for instance, collect hairs, clothes, monies, cash receipts, farm produce, soil, motor vehicle parts, etc. from a victim and tie them together with medicines. Once concocted, the charms were hidden at various locations and were believed to emit their poison in the air to injure or kill their victims. To counteract the effects of the charms, MB organized a ritual in the form of a church service where, through animated prayer and worship, he activated his powers to magically uproot the charms from their concealed locations and caused them to fall in his church compound. As many as 30 charms would be uprooted in this ritual. Clients then collect them and bring them to MB who identified and destroyed them by burning (Fig. 2). In

Fig. 2: Some of the charms retrieved in one such session

one of the cases I observed, MB unpacked a charm that contained a coin worth 20 Kenyan shillings, rotten clothes, decomposing examination test papers and soil, all bound together by equally decomposing green leaves. This charm was identified by MB as responsible for one of his client's ill health and business woes. The charm retrieval ritual was held once every month. Such clients paid an extra fee for a private session.

Cleansing was yet another ritual healing technique employed by MB used, where the "X-ray" indicated that a foreign object had been ritually lodged in a client's body to injure or even kill them. To heal such clients, MB uses the bible and lubrication oil to massage the affected part of the victim's body and extract the foreign object causing the affliction. The foreign objects appeared in the middle of the bible and were later discarded. One of the most striking cases, which I managed to capture on film in the course of my fieldwork, was that of Karama (not his real name). Karama appeared at MB's healing ritual with a distended abdomen, a condition he had suffered from for close to a year. He had previously been admitted in a biomedical health facility and diagnosed with intestinal obstruction. MB divined that he had been fed on a ritually treated seed, was known in the local language as *ekikata*. He massaged Karama's belly with the bible and extracted the *ekikata* which appeared in the middle of the bible in the form of clotted blood with small boluses of decomposing flesh. (Fig. 3)

Fig. 3: The *ekikata* gleaned from the abdomen in the middle of the bible

The final ritual by MB is known by the Kiswahili word *kufunika* which translated as "to cover". Here, MB used the bible, a white cloth and eight candles to pray over a client and offer him a lifelong prophylaxis against affliction. As part of the ritual, MB provided a client with a bible chapter as their secret weapon against affliction and a list of dos and don'ts that they were supposed to uphold for this protection to be effective. MB refered to this ritual act as providing a "reflector" that would ricochet afflictions to those who sent or wished them. This ritual was optional for clients who could afford to pay for it.

Ritual healing is a flourishing and prominent reconstructive strategy for the people of Western Kenya. Ritual healing clients' needs vary widely and if you think of the advertising boards for ritual healers as an indicator of demand, then the uses of ritual healing are bewilderingly complex. During my fieldwork, I saw that clients consulted healers for all kinds of illnesses for which they suspected preternatural manipulations, or where social and physical means of resolution had failed. Many clients suspected that they were victims of witchcraft or sorcery resulting in a myriad of physical maladies. There was, for instance, the case of Karama, as mentioned above. He suffered from what biomedical practitioners diagnosed as intestinal obstruction, but he also viewed his stomach abscess as caused by the ingestion of a ritually treated seed. He therefore sought treatment from a biomedical facility as well as from MB to identify the sorcerer and heal him of the ritual effects of the seed. Other clients consult MB to help them resolve problems for which physical means had failed. This includes help to win court cases, locate and recall runaway spouses and children, resolve murder cases, theft of property, arrest dwindling economic fortunes, assistance to recover debts, etc. Under conditions of modernity, law enforcement agencies (police and state justice system) are expected to resolve cases of murder, property theft, debt recovery, etc. Most Kenyans, however, view these modern institutions (including others such as education institutions, employment agencies and markets) as inefficient, corrupt and equally susceptible to ritual manipulation. Clients with ongoing court cases in the state law courts came to MB's rituals when they considered the judges to be compromised. MB's court and justice system are thus considered to be superior to the state system.

Evans Pritchard's (1937) observation that new conditions required new magic remains true for ritual healing in Western Kenya. Modernity has not effaced the need for ritual healing. Instead it has created new situations and conditions for which ritual healing is considered a pragmatic response in the face of adversity. Ritual healers such as MB enhance their prominence by resisting the Western capitalist ideology whose conception of man, illness and healing separates religion from healing, healing from social relations and justice. African healers and their clients, even in the context of thoroughgoing social change, locate an individual's affliction within a social, spiritual and natural environment. Afflictions are therefore explained as breaches in a person's, family's or community's relationship with these matrices.

In response to the criticisms by modernity and its allies, ritual healers adapt their techniques to the demands and conditions of their clients. A closer look at MB's ritual healing reveals his adaption of the Christian religion, biomedical terms and pseudo-biomedical procedures such as the use of appointment cards, separate rooms for different procedures, a business-like division of labour between him and his secretary, and an "objective" diagnostic technique to which everyone was subjected. MB claims that he depends on the notes taken by the secretary in the same way a surgeon depends on scans taken by the X-ray machines.

With modernity, ritual healers currently have to deal with the altered social matrices of their clients. Clients include people in formal sector employment who may not have time for protracted ritual ceremonies as well as clients from other ethnic groups who may not share the same cultural and social background with the healer. To deal with clients who had no time for protracted rituals, MB developed a fast tracking ritual technique where he conducted evening "X-ray" sessions in addition to his normal daily ones, so as to conclude them over one weekend. Such rituals attracted an extra fee and were well-suited to urban clients. Clients could also be represented by their relatives in some of the "X-ray" sessions in case they were unavailable.

The entry of a market economy as well as improvement in transport and communication has increased the accessibility of healers. This has however also increased the cultural, social and physical distance between clients and healers. As such, ritual healing and the obligation to pay are no longer viewed in moral terms but as services offered and paid for at market conditions. Ritual healers therefore devise a system of payments for each of their services. Each of the healing sessions by MB attracted a fee which had to be paid in full or in part before the commencement of the healing sessions. MB, however, downplays the importance of payment for his rituals, insisting that he treated all clients even those who could not pay for his services.

MB explained that the decision to embrace Christianity in his healing practice was to distance his healing from that of his maternal grandfather, a traditional healer from whom he inherited his healing powers. He refers to himself as a modern day Christian healer. This shift is, however, an ingenious one that enables him to appeal to a wider client base as well as to escape the attention of law enforcement agencies. Many ritual healers refer to their healing sessions as exorcism, prayers or cleansing and by so doing, consciously or unconsciously shielded their healing practices from accusations of practicing witchcraft.

The question of the efficacy of ritual is complex. Scholars such as Kirmayer (2004) have observed that the effectiveness of ritual can be judged against their ability to achieve goals that vary widely across different settings and traditions. Any account of efficacy therefore, ought to include an analysis not only of what, how and why things work, but of more basic or anterior questions of what it means for something "to work", what is supposed to be working on and toward what end. To address this question, I considered it necessary to conduct detailed observations of the clients and their healing process. An analysis of these ethnographies with their varied trajectories confirms that the efficacy of rituals is not only specific to each healing tradition but to each case presented to the healer. A client who wants the healer to assist in locating his lost daughter would have a different expectation from one who wished to be healed of his swollen stomach abscess. But how does the healer do that which he claims to do?

From my observations at MB's (which was to some extent true for the other healers) I realized that the key to his healing was his ability to create a narrative that captured the entire range of a client's affliction accompanied by a set of standard remedial measures for each of the afflictions. This he does by combining disparate systems of logic and practices all held together by his supernatural abilities. MB is cognizant of the fact that clients are skeptical of healers' manipulative abilities. He therefore developed the "X-ray" process where clients listened to the voices of their transgressors in his absence. MB valued the appearance of detail, objectivity and reliability. In the "X-ray" process, clients listened to the voices of their transgressors at least three times. Transcripts of these sessions revealed an extremely detailed and consistent narrative from the various voices throughout the sessions. Since naming was the first step in the healing process, MB allowed the clients' narrative to unravel from the "X-ray" process, and augmented it with detailed discussions with clients before devising an ameliorative strategy.

In the "X-ray" sessions MB empowered the clients to decide the fate of their transgressors. Even without the final outcome of the ritual, clients felt victorious when their transgressors were set on fire and as they screamed and begged for mercy while the bible was burned. Involving the congregation in the rituals and spreading them over a long duration gave the clients time to reflect and comfort each other, while at other times, allowed other forms of social control to resolve the clients' problems, e.g. police would arrest thieves and recover lost property, lost children would return home etc. MB informed his clients that their problems would not amplify as long as he had committed them to his ritual power. This freed the clients from their anxiety and this alone could lead to help with their healing process, and satisfy their desire for revenge.

In my follow up visits, clients always confirmed that their afflictions had indeed abated. I must however hasten to add that my perceived close contact with MB may have biased their assessment of their situation. I got one of the clearest testimonies of MB's healing from one of his clients who appeared at MB's with her daughter who had disappeared from her home. The client, a high school teacher, explained to me that MB had located her daughter from her hideout and used his powers to bring her back home. The case of Kirwa's murder was however complicated and took several months to resolve. I give a summary of it below.

Kirwa's Murder

MB was often consulted by clients who wanted to find out who was responsible for the death of their relatives. The case of Kirwa was one of them. Kirwa was a well known entrepreneur who had been violently murdered in the presence of his wife at his farm. His wife and children reported his murder to the police but judging from the lackadaisical manner in which the police investigated the case, they formed the opinion that they (police) were unwilling to resolve the case. They suspected that their father's killers had compromised the police to foil any investigations. They therefore turned to MB for assistance.

MB subjected them to his "X-ray". In the "mention" and "hearing" of their case, the people who killed their father confessed their crime and named those who hired them to perform this assignment. A narrative of Kirwa's murder unraveled from MB's "X-ray" sessions. Kirwa had been murdered by a gang of six people who were hired by persons with whom he had a dispute over the ownership of his farm. The voices of the gang members appeared in the "X-ray" session and provided gory details of their actions on the fateful night. They also named the people who hired them to kill Mr. Kirwa. Kirwa's son and daughter who attended several "X-ray" sessions stated that the details provided by the murderers in the "X-ray" sessions matched perfectly with their mother's account of what happened when the thugs invaded their compound on the fateful night.

In MB's healing rituals, all people who committed murder and those who hired them were condemned to death through ritual burning at the "judgment" session. Kirwa's murderers were set on fire and were expected to die a month after the performance of the ritual. Kirwa's children attended the "outcome" session of their "X-ray" where the six members of the gang that murdered their father stated

that they had died after being ritually burnt by MB. Kirwa's children stated that they heard of a neighbor who had died after fighting with his own father, but they were unaware that he was involved in killing their father until he made the confession at MB's "X-ray" session. However the alleged masterminds of their father's killing, who were well known to Kirwa's children since they had an affinal relationship with them, had not succumbed. They appeared in subsequent "outcome" sessions and claimed that they approached other healers to protect them from MB's fire. The remedy for such a case for MB was a new "hearing" and "judgment" session where the two would be set on fire together with their healers, followed by yet another "outcome" session. The case became protracted over several months in which MB set the masterminds on fire, and in subsequent outcome sessions, the enemies claimed to have approached new healers who protected them. In the last "outcome" sessions that I observed with Kirwa's children, the masterminds of their father's murder reported that they were fatally ill. I did not encounter Kirwa's children at MB's rituals again, but in subsequent discussions at their home, they concluded that MB had at least punished those who killed their father and it was just a matter of time before those who hired them also died. According to them MB's healing had addressed their concerns to their satisfaction.

Conclusion

Ritual healing is vibrant in Western Kenya and is neither a rejection of nor a resistance to modernity. In its comprehensive etiology, ritual healing accommodates and in some instances attempts to domesticate "modernity", as ritual healers and their clients grapple with the issues and problems occasioned by rapid societal transformation. This societal transformation in the name of modernization has solved many problems as well as creating new ones, and it has also resulted in new avenues for dealing with old problems. Ritual healing played an important role in solving some of the problems faced by the people, since as one of my clients reiterated regarding his consultations with MB, "We are dealing with African chemistry here".

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Asymmetrical Translations of Biomedicine in India: The Cases of Contemporary Āyurveda and Psychiatry

Ananda Samir Chopra, Johannes Quack

Introduction

The spread of modern Western biomedicine to all parts of the world in the past two centuries represents one of the most conspicuous examples of transcultural flows. This flow of biomedicine to different cultural and geographical contexts is informed by and again creates

asymmetries on different levels. By presenting two cases from India we endeavor to analyze the nature and effect of the transcultural flow of biomedicine and the asymmetries associated with it. Studying the practice of biomedical psychiatry in the context of a small Indian city, Johannes Quack examines the ways in which psychiatric concepts are made understandable to patients with a cultural background that is clearly different from the cultural background of biomedicine. Cultural and economic factors shape this process of translation as well as the practice of biomedical psychiatry. The theme of translation also looms large in Ananda Chopra's study of biomedicine's impact on contemporary Āyurveda. A scholarly medical tradition with a long literary history, Āyurveda reacts to biomedicine and its overwhelming claim to scientific truth in a complex way. On the institutional level the influence of biomedicine leads to a process of professionalization with the creation of āyurvedic institutions resembling biomedical ones. But on the conceptual level we find a complex process in the course of which Āyurveda incorporates biomedical knowledge in a peculiar way that is shaped by classical Indian notions of science.

The two projects presented here summarize the first findings of work in progress that is part of a larger research project called "Asymmetrical translations: Mind and body in European and Indian medicine" (C3) which investigates instances of "asymmetrical translations" in a trans-cultural perspective with respect to Indian systems of medicine in the West and Western systems of medicine in India. The central hypothesis is that flows of ideas and practices produced (and continue to produce) theoretical, practical, pedagogical, economic, aesthetic and other asymmetries within and amongst the European and South Asian healing systems. These asymmetries are exemplified as well as caused by practices of translation which we understand to include not only textual translation, but also pedagogics and therapeutics. In order to test, substantiate, qualify or correct this hypothesis the members of this project have been conducting research on transnational flows within and between the quartet of biomedicine, Āyurveda, psychology/psychiatry and vernacular healing, basing our investigation on learned and popular texts as well as on the ethnography of clinical and vernacular healing practices. The central research question for all research projects is how texts and institutions (hospitals, medical schools, textbooks, doctors' reports, clinics, spas) of indigenous South Asian healing systems adapt to the dominant biomedical paradigm and vice versa. Further research questions address the different aspects of translation, spanning from the "translation of systems" over the "translation of practices" to the "translation of concepts" and their respective interconnections with nosologies and therapies.

One of the major strengths of the project is its inter-cultural and inter-disciplinary nature, with inputs from medical anthropology, religious studies, philology, history, and history of medicine. Besides the two authors, there are two doctoral students (Hari Kumar Nair and Christoph Cyrianski) and three other core team members working on the project "Asymmetrical Translations". The project is coordinated by William S. Sax who is exploring the ways in which terms and ideas associated with "Western" psychology penetrate North Indian popular culture. Bhargavi Davar is conducting an archival study of the ideational and institutional histories of psychology and psychiatry in India during the late colonial period. Finally, Harish Naraindas is working on the status of Āyurveda in the context of "complementary and alternative medicine" in Germany (see www.asia-europe.uni-heidelberg.de).

Psychiatry in India

The massive worldwide export of "Western" psychiatry is a rather recent phenomenon. The health-related activities of international development agencies and especially national health ministries in developing countries have, for a long time, shown little interest in mental health issues. This was partially due to the fact that international health professionals have tended to exclude mental illness from standard assessments of global health (Desjarlais et al. 1996: 4). This situation, however, has begun to change recently. Increasingly, the WHO stresses that mental disorders make substantial contributions to the global burden of disease (GBD) while the proportion of those people with mental disorders who would need treatment but receive no or inadequate mental health care – the so-called "treatment gap" – is estimated at

around 80% for low and middle-income countries (www.who.int/mental_health). Global and national institutions are therefore currently investing massively in the export of "Western" psychiatric techniques.

Such developments have been reflected upon critically in historical (e. g. Bhugra 2001) and contemporary perspectives (e. g. Watters 2010). Although ideas of the universality of psychiatric models and therapies are extremely powerful, many anthropological studies have shown that behavioral and psychological disturbances in non-Western settings cannot be easily equated with the categories of Western psychopathology, and that seemingly appropriate categories often have a significantly different meaning in local contexts (Kleinman's classic "category fallacy" 1977). While such studies focus primarily on diagnostic categories, there are few comparable in-depth studies of how psychiatry is actually practiced in various local contexts outside the North-Atlantic world. Indeed, there are scientific, professional, institutional, economic and peer pressures on psychiatrists to emphasize the transculturally similar aspects of their practice and to downplay local differences. Even if psychiatrists the world over have (more or less) similar teaching curricula, use the same diagnostic manuals, and prescribe the same drugs, they differ in their actual treatment and the take-up of the treatment by patients varies greatly; the health benefits of (and the harm caused by) their various treatments are therefore not the same.

Quack's current research project engages with the recent export of "Western" psychiatry, and addresses problems related to the translation of concepts and practices from psychiatry into North Indian realities. This work is part of the author's long-term interest in issues of "mental health" in India. During his doctoral fieldwork on rationalist organizations and their criticism of "traditional" healing practices (Quack 2011) he focused especially on the criticism of religious healing sites. His work included short ethnographic field studies on "traditional" mental health-care at Balaji temple, Mehandipur, India and visits to "traditional" mental health-care sites such as the Vineyard Workers' Church (Pune), the "exorcist" Abid Kadiri (Ahmednagar), the Mirawali Durgah (Ahmednagar), the Mahanubhav Temple (Phaltan), Farshiwale Baba (Nasik), and Mira Dattar Durgah (Palanur). In addition, Quack conducted interviews with psychiatrists, mental health activists, various NGO representatives, and self-help groups in Maharashtra and Delhi.

Against this background, Quack's current research aims can be divided into two parts. The first part is an ethnographic study of a psychiatric wing of an urban hospital in the state of Uttarakhand in North India, based on long-term fieldwork conducted there in 2010. It contributes to the small group of researchers working on the actual practice of "Western" psychiatry in India (e. g. Addlakha 2008; Jain and Jadhav 2008, 2009) and other non-Western countries (e. g. Higginbotham 1984; Gaines 1992).

The psychiatric system adopted from the West is practiced in a specific way in India. The most important difference is the lack of institutionalized mental health care infrastructure, i. e. psychiatrists, psychologists, additional therapeutic care and social workers. The two most significant implications of this shortage of health professionals are the very short consultation times the therapists can dedicate to each patient, and the great distances that many patients must travel to reach the doctor, when and if one is available and affordable. Further problems of infrastructure are that not only mental health professionals but also some of the medicines are not available to or affordable for the patients. The mental health care situation in Uttarakhand was summarized by a WHO report from 2006 in the following words: "Uttarkhand is a new state and it lacks in sufficient infrastructure, manpower, and facilities. The state has neither a mental hospital nor a community mental health facility. There is no specific mental health related information system in the state […]. Only 3.22 percent of the total planned budget for the year 2005-06 has been earmarked for health of which only 1.2 percent (INR 106.61 lakh ["lakh" is a unit in the Indian numbering system equal to one hundred thousand]) has been allocated for establishment of a Mental Health Authority and the construction of a mental hospital. The state does not have a mental health outpatient facility in the public sector." (WHO 2006: iv-v)

In general, this assessment still held true in

2010. The major difference from 2006 is that the state has a new Mental Hospital, in Selaqui near Dehradun. It was not offering full service when Quack last visited in October 2010, but had begun to treat the first few inpatients. Beside this, the only mental health outpatient and day treatment facility is available at the Himalayan Institute Trust Hospital near Dehradun. The dimension of the described lack of trained staff becomes most visible if compared to a Western country of the same size and roughly the same amount of inhabitants such as Switzerland.

per 10,000 population	**World**	**S-E Asia**	**India**	**Uttarkhand**	**Switzerland**
Total Psychiatric Beds	1.69	0.33	0.25	Nil	13.2
Psychiatric beds in mental hospitals	0.33	0.03	0.05	Nil	13.2
per 100,000 population	**World**	**S-E Asia**	**India**	**Uttarkhand**	**Switzerland**
Number of psychiatrists	1.2	0.2	0.2	0.08	23
Number of neurosurgeons	0.2	0.03	0.06	Nil	0.8
Number of psychiatric nurses	2.0	0.1	0.05	Nil	46
Number of neurologists	0.3	0.05	0.05	Nil	3.4
Number of psychologists	0.6	0.03	0.03	0.01	40.8
Number of social workers	0.4	0.04	0.03	Nil	106

Table. 1: Psychiatric Beds and Professionals in Mental Health (Sources: for Uttarkhand WHO 2006: 6, for Switzerland WHO 2005: 449)

Thus, in the years 2005/06 there were 287.5 times more psychiatrists in Switzerland than in Uttarakhand, and 4080 times more psychologists, not to speak of the trained social workers of which Switzerland has more than one per 1000 inhabitants while Uttarakhand has none for more than 8,5 million inhabitants. Despite the fact that Switzerland is a comparatively rich Western country, it does not take much imagination to see that there is an enormous mismatch between the infrastructure within which psychiatric medicines and the respective therapeutic interventions are planned, tested and implemented in other parts of the world, such as India, where they are transplanted into a completely different infrastructure. The lack of infrastructure and time are two of the most important reasons for the psychiatrists' almost exclusive use of prescription drugs for the treatment of the "mentally ill" in places like Uttarakhand. Other aspects of mental healthcare such as psychotherapy, social work, or self-help groups were non-existent in Uttarakhand in 2010. Studies on the quantities and ways in which psychotropic drugs are prescribed in India have been conducted, for example, by Baby et al. (2009), Ecks and Basu (2009) and Jain and Jadhav (2009). The question as to why psychiatrists rely almost exclusively on pharmaceutical or somatic interventions in psychiatric settings has been addressed head-on by Nunley (1996) and Jain and Jadhav (2009). In addition to the lack of infrastructure they highlight the importance of mental health planning and policy-making.

A further important observation is that patients in India do not take drugs as prescribed. An extensive review of the literature on compliance (e. g. Cohen, Ross et al. 2004; Cramer et al. 2008; Elliott et al. 2008) leads to several observations. Firstly, a whole series of problems are often lumped together under the rubric of "compliance". These include issues such as the patient "health literacy", the available health care alternatives, the multilayered realm of doctor-patient relationship and the debates around drug side effects. Secondly, this set of problems results in forgone health benefits, new health problems and increasing productivity costs. A number of patients, for example, discontinue antipsychotics after some time because they do not feel relief from symptoms like hallucinations or delusions and, additionally, the medications can be quite expensive. The underlying problem is that the antipsychotic medicines they got only show efficacy after two to eight weeks of continuous and correct intake. The Indian patients, some of whom have a generalized perspective on biomedicine as being "fast" and "aggressive" (see also Halliburton 2009: 14, 116, 190-195), are therefore unlikely to spend a considerable amount of money on medicines that appear ineffective to them.

Although the set of problems generally summa-

rized under the rubric "compliance" is enormous the world over there are two reasons why this issue has to be highlighted especially in the present case. Firstly, psychotropic medications represent the mainstay of treatment in India. Kumar and Sedgwick (2001: 280) argue that this is the case in countries with emerging and developing economies in general. Secondly, there are many reasons why patients do not follow the treatment regime as proposed by the doctor, i. e. why "non-compliance" is particularly high in settings such as this one. Therefore it is crucial to investigate the larger phenomenon of "compliance" (or "adherence"), particularly with a focus on the patients' perspectives. The research in India by Quack further suggests that a significant factor is counseling by health professionals, including the adequacy of their communication and gained trust (see also Chue 2004; Eley et al. 2006). Of central importance is the fact that the patients' perspectives on the origins, central aspects and probable ways of addressing their problems are more or less ignored by psychiatrists. These and related observations are supported by Baby et al. (2009) who argue that the majority of noncompliant patients in India are less educated, and live in rural areas. The follow-up counseling for these patients is limited in scope as the psychiatrists are typically overburdened with heavy patient load. Family members and patients are reluctant to ask questions about their medication and treatment and most of their doubts remain unaddressed. The majority of the psychiatrists interviewed in Uttarakhand attributed non-compliance to the patients' lack of mental health "awareness". They described how some patients have generalized prejudices about psychotropics such as the idea that bio-medicine is fast and aggressive and hence the patients stop medication if there is no immediate effect. The psychiatrists hardly reflected on the question whether the differences in education and habitus were also a hindrance to their treatment approach. Such observations should not be taken as criticism of the psychiatrists given the time pressure under which they have to work and the fact that they are trained in natural and not social sciences. The challenges they face every day are considerable. For example, the doctors do not only have to translate from medical terminology to everyday speech, from English to Hindi and further – often via a third person – to Garhwali (the language spoken by most of the people living in the northern Garhwal Division of Uttarakhand). But they generally also have to translate from the logic of the Western textbooks to the local realities of the patients. The "Western" psychiatric system only works if the patients are able to understand and follow the underlying therapeutic logic. This is often not the case in Uttarakhand, not only because patients are at times not able to read and write, but, more importantly, because the approach of the Western-educated urban middle-class doctor clashes with the "habitus" of the patients. Addlakha, whose research produced similar findings as those presented here, concluded: "For Indian practitioners, medical training is a double socialization, that is, into psychiatric nosologies and treatment regimes, and into the culture of biomedicine. […] The challenge to indigenous professional practitioners, trained in a system that has developed in the context of an alien society and culture, but applying it to their own societies, is to negotiate their own commonsensical understanding with the so-called objective and universals discourse of the biomedical model." (2006: 265-266)

This is much less true when one looks at the traditional healing sector in India. In this respect the statement about the lack of mental health infrastructure has to be qualified. The facts and figures about the number of psychiatrists, hospitals, beds, etc. in India take into account only some aspects of mental health care. Mental health authorities and public health research nearly always ignore the significance of therapeutic alternatives for the mainstream medical system. The former head of the Psychiatry Department at the All-India Institute of Medical Sciences, New Delhi, and WHO consultant Jaswant Singh Neki estimated in 1973 that around 80% of the Indian population approaches "folk" practitioners and "traditional" healing centers for treatment of mental health problems (see Pakaslahti 1998: 129). This figure has been subsequently confirmed by various other studies (see Kapur 1975, 2004; Campion and Bhugra 1997: 215; Shah 1984: 737; De Sousa and De Sousa 1984: 6). India has a network of health practitioners operating outside the institutionalized healthcare system, often outside the purview of health professionals (see Pakaslahti 1998: 129). This

"traditional" healing system provides the bulk of care and support for those who suffer from mental health and substance-dependence problems. On the question of the relationship between the "traditional" alternatives favoured by psychiatric patients in India, there are several good anthropological studies (see for similar findings Basu 2009a,b, 2010a,b; Bibeau and Corin 2009, 2010). The first comparative approach addressing this question is provided by Incayawar et al. (2009).

Practically all Indian psychiatrists that Quack spoke to were partially aware of the observations listed above. On the other hand, this partial awareness had no bearing on their professional practice. Despite the fact that in interviews and every-day conversations most psychiatrists questioned the exclusive prescription of drugs, complained that far too many patients failed to take medicine as prescribed, and confirmed the importance of engaging with the patients' and healers' explanatory models, religious beliefs and practices, these "insights" had few if any further consequences. Why does the everyday knowledge of psychiatrists not influence their professional practice? Our hypothesis, to be developed in future publications, is that they are faced with a dilemma: on the one hand, psychiatrists want to stay true to their professional training while on the other hand this stance sometimes conflicts with the local realities. The cultural psychiatrist Fabrega summarizes his as well as the findings of the anthropologist Nunley (1996) with the following words: "To act like a doctor in India is to take an epidemic view, deal rapidly with a heavy patient load, quickly make provisional disease diagnoses, and prescribe drugs. To handle problems that are brought to them in any other way would make psychiatrists less like other doctors and more like gurus, spiritual counselors, or faith healers, which are not what psychiatrists in India want to be." (Fabrega 2009: 614)

The fact that the therapists generally tend to privilege abstract, professional knowledge over knowledge gathered in their every-day lives (lebensweltliches Wissen) is well recognized. This can reach such extent that the professionals become structurally blind to or "misrecognize" (in Bourdieuian terms) problems that appear to be clearly visible from an outsider's perspective. It was observed, for example, that psychiatrists often prescribe medicines that they (should) know the patients cannot afford. They also often condemn religious beliefs and practices they themselves adhere to in their private lives. Furthermore, when asked about the relevance of issues related to "culture" in their practice, the "culture-bound syndromes" as listed in the international manuals come to their mind, but not the many ways in which these manuals do not fit their therapeutic realities. Grundmann et al. (2008) convincingly argue that this discrepancy is the more pronounced the higher the perceived asymmetry between professional and every-day knowledge. With respect to India, it is important to note that "Western" psychiatry is one of many colonial relics that unfolds with specific dynamics in the post-colonial context (Ananth 1981; Bhugra 2001; Bhugra and Littlewood 2001; Jadhav 2004; Fabrega 2009). "Western medicine" or "English medicine" (as it is also called in India) continues to carry high prestige and is often opposed to "superstition" and "backwardness".

Such factors help to explain why the psychiatrists studied in India do not engage with those experiences and understandings of their patients which feature non-biomedical interpretations of their problems such as social circumstances, relationship problems, broken taboos, or further religious explanations. Accordingly, many patients turn to the therapies of traditional healers who engage with such issues.

The second part of Quack's project attempts to compare the ethnography of psychiatric practices in North India with similar studies in different cultural contexts. We lack comparative studies of the many ways in which psychiatry is practiced in different local settings. Such studies would help us to identify commonalities and differences between local psychiatries, especially in non-Western countries, and this could represent the basis for improving mental health services. Quack plans to research the ways in which his observations on the practice of psychiatry in India can be compared to similar studies in other countries in 2012 when he will become a research fellow at the Division of Social and Transcultural Psychiatry, McGill University, Montreal. The aim of the project is to contribute to a more comprehensive understanding of how different cultural contexts

shape, transform, or even corrupt psychiatric practices by engaging with ethnographies of psychiatry that take into account the psychiatrists', patients' and care-givers' experiences and perspectives. A "radically empirical" (ethnographic) approach is crucial, since the descriptive language prevalent in standard "Neo-Kraepelinian" (Gone and Kirmayer 2010) depictions of psychiatric practices tends to hide cultural differences while projecting apparently universal features.

Contemporary Āyurvedic Nosology and the Influence of Biomedicine

The spread of biomedicine to India in the 19th and 20th century did not fail to have an impact on the indigenous scholarly medical tradition of Āyurveda. Chopra's project on the nosology of contemporary Āyurveda aims to analyze the complex processes brought about by this transcultural flow. Nosology has been chosen as the object of research because this is the part of medicine where practice is intimately related to the theory of the relevant "medical system". When the physicians assess signs and symptoms of the patient and classify them so as to name one or more disease(s), they apply the categories of their medical system to the realities of diseased patients and at the same time the medical system is confronted with the realities of disease. Therefore, one can assume that changing medical realities have an impact first and most clearly on a medical system's nosology. The study of nosology may thus also offer insights into patterns of change within a particular medical system. To research these processes, Chopra combined field-work in Āyurvedic clinics in India with a study of contemporary scientific literature of Āyurveda; in addition, results of historical-philological research, at least on the major historical works of the Āyurvedic tradition, had to be surveyed, because Āyurveda is typically defined as a traditional science and physicians as well as learned authors constantly refer to traditional literature (Zimmermann 1978).

A most conspicuous effect of the influence of biomedicine on Āyurveda is the process termed "professionalization" (Leslie 1998 ?1976?), which in the course of the last century has resulted in the institutionalization of Āyurveda along the lines of biomedicine. Thus, Āyurveda is presently taught in colleges according to a centrally sanctioned curriculum and Āyurvedic physicians obtain their own registration and form their own professional associations, to name just the most visible effects. These developments in the institutional representation of Āyurveda clearly reflect an asymmetry with biomedicine as the dominant partner. However, when we go beyond these external representations and ask if and how biomedical concepts have influenced the practice and the scholarly aspect of Āyurveda, the picture becomes more complex. As medical systems in general can be considered practical sciences, research should at best include practice as well as scholarly theory in order to do justice to a learned medical system like Āyurveda.

Two short periods of field-study in two very different Āyurvedic clinics in India reveal that there is noticeable diversity in the practice of Āyurveda in India. The first such study was conducted over five months at a reputed modern academic institution of Āyurveda in north India, which to a large extent is typical of contemporary "professionalized" Āyurveda, while the second field-study took place for about three months in the clinic of a highly respected traditional Āyurvedic physician in south-west India.

The presence of biomedicine is clearly felt in both institutions, thus in both institutions reports of biomedical (laboratory) tests are routinely taken into consideration when diagnosing a patient and they are sometimes even specifically asked for. In the clinic of the academic institution even external elements of the clinical encounter resemble those of biomedical institutions, so that the physicians, for example, often wear white coats and carry a stethoscope. In the traditional clinic, on the other hand, the consultation takes place in more family-like circumstances and the physician, who happens to be a high-caste Brahmin, wears his traditional attire and his main diagnostic techniques are looking at the patient and questioning him, while he rarely palpates e. g. the abdomen of a patient in the case of abdominal swellings or liver-enlargement.

Documentation in the professionalized institution routinely takes place in English, even though the conversation with the patient is usu-

ally in Hindi. In many cases, though not always, even the diagnostic category noted down is drawn from the biomedical nomenclature. Although there is a dispensary of Āyurvedic medicines produced in the university itself, where patients could procure medicines, the doctors show a clear predilection for prescribing the so-called "proprietary" Āyurvedic medicines, pharmaceuticals produced by companies on the basis of traditional Āyurvedic recipes, which are modified to a greater or lesser extent and thus become the "property" of the company. This process of prescription and subsequent procurement of industrially produced medicines from an (Āyurvedic) pharmacy might also be seen as an emulation of biomedical patterns. During the Chopra's own field-research in this institution of professionalized Āyurveda, the prescription of biomedical drugs by physicians trained in the institutionalized Āyurveda, described as a frequent practice in the literature, was witnessed only very rarely.

With respect to these practices the difference between the clinic of the professionalized Āyurvedic institution and the traditional physician seems to be most pronounced. In the traditional physician's clinic the diagnosis is routinely noted down as an Āyurvedic disease-name (Sanskrit in Malayalam script), with the English biomedical disease name sometimes noted in addition. Interesting to note is that at times this practice implies a translation which is tacitly performed. Thus, when asked about his problem, a young male patient replies that he has been diagnosed with ulcerative colitis, employing the English disease name in the course of a conversation taking place in Malayalam. The physician's assistant notes down the Āyurvedic disease name grahaṇī without any discussion. However, such acceptance of a biomedical diagnostic category, and its translation into an Āyurvedic one, is not a common practice in this clinic. In most cases the physician insists on making his own, Āyurvedic diagnosis on the basis of his own diagnostic means, even if the patient presents him with a biomedical disease name. On the basis of this diagnosis the physician then dictates his prescription, usually consisting of numerous herbal preparations of different kinds (decoctions, powders, oils, pastes etc.) and their combination, all of which is noted down by the assistant. While dictating the prescription the physician very often recites Sanskrit verses from classical texts (most often from the Aṣṭāṅgahṛdayasaṃhitā, but also from the Aṣṭāṅgasaṃgraha, the Sahasrayogam, the Cikitsāmañjari and others), describing the formulation and the indications of the respective preparation. Almost all of the preparations that he prescribes are found in the classical texts, the rest consisting of variations of classical formulations created by the physician himself. While prescribing these classical herbal remedies, the physician commonly combines or mixes the preparations so as to suit the needs of the individual patient. To make the clinical encounter complete, a factory for these herbal preparations also belongs to the estate of this traditional physician. Therefore, the patients usually take the prescription to the physician's own dispensary where the remedies and their specific combinations are prepared for them. These freshly combined individual preparations are then taken home by the patient, together with a couple of typed pages containing information on how to take the medicines and including dietetic advice, too.

As these short sketches of two different instances of Āyurvedic consultations show, there is a marked diversity in the actual clinical practice of Āyurveda. However, when it comes to the question of the impact of biomedicine on Āyurveda and specifically to the question of how biomedicine influences Āyurvedic nosology, one finds that the differences between different contemporary practitioners of Āyurveda are not as great as suggested by the observation of practice. Taking a close look at the way diseases are presently named and conceptualized, we may roughly distinguish three patterns.

The first pattern is represented by the rare instance where a modern biomedical disease is accepted as being a separate disease, not regularly found in the traditional Āyurvedic literature. A case in point may be hypertension ("high blood-pressure"), which is mostly accepted as a separate disease and then even translated into Āyurvedic parlance by being accorded a "new" Sanskrit name. (Although there is diversity here, too, see Chopra n.d.)

The second pattern is seen at the other extreme, that is, the Āyurvedic disease-entities continue to exist in their own identity. An example of this from the practice of the traditional Āyurvedic

physician in south-west India is the disease-entity usually called *raktavāta* by him (in the literature it is more often known as *vātarakta*); this comprises symptoms such as lower back pain and pain in the knee-joints. In these cases the physician ostentatiously refused to look at biomedical diagnostic reports (e. g. CT-scans, MRI-scans, X-ray-films) even if the patients brought them along. Instead, he examined the knees and the skin of the legs in accordance with the description of this disease-entity in the classical texts: needless to say, the therapy, too, followed the classical Āyurvedic lines. As is to be expected, this pattern of a classical Āyurvedic disease-entity retaining its own identity is more frequently seen in the traditional Āyurvedic practice than in the practice of professionalized Āyurveda.

However, the third and by far the most common pattern in both types of contemporary Āyurvedic practice is characterized by a complex process of translation on the basis of correspondences between modern biomedical diseases and classical Āyurvedic disease-entities. Although this process has clearly perceptible bearings on everyday practice, one might perhaps get a clearer idea of this kind of process by taking a look at textbooks and other literature produced by contemporary Āyurvedic scholars. Studying the ways in which diseases are defined, classified and described in typical contemporary text-books of Āyurveda, one notices a translation-process on different levels: firstly, there is translation in the popular sense of the word, meaning linguistic translation; secondly, and more importantly, there is translation based on disease-symptoms; and thirdly, we find attempts at translating physiological concepts. As an example the disease named *prameha* may be cited, a disease name well known from the Āyurvedic tradition, starting with the earliest extant texts (for a critical historical discussion of this disease-entity see Müller 1932). A number of disease-conditions characterized by excessive discharge of urine and/or abnormalities of urine are subsumed under this term (the classical theory mostly knows of twenty different types of *prameha*) which can be translated literally as "excessive urination". Nowadays this term has become almost synonymous for the biomedical disease-entity of diabetes mellitus and is very often defined by the biomedical parameters that define that disease. Thus the traditional physician in south-west India routinely asks his patients if they suffer from *prameha*, using this Sanskrit term in his (Malayalam) conversation and if the answer is affirmative, he asks for the result of the latest blood sugar test (referring to the result of a biomedical laboratory test). Clearly to him as well as his patients the term *prameha* is synonymous with the disease that is defined by an abnormally elevated level of blood sugar. This identification of *prameha* with diabetes mellitus is partly enforced by the fact that the Greek term diabetes like the Sanskrit term *prameha* means "excessive urination"; in addition, at least one of the varieties of *prameha* described in classical Āyurvedic texts is characterized by an excessive discharge of sweet urine, usually referred to as *madhumeha*, the meaning of which corresponds to the biomedical term diabetes mellitus, viz., "excessive discharge of honey-sweet urine". (One might note in passing that in this case the biomedical disease name reflects a historically older stage in the history of modern biomedicine.) Thus, this translation based on the similarity of symptoms coincides with a semantic similarity of disease terms from different medical cultures. By narrowing down the meaning of *prameha* to signify what in traditional scholarship is only one of its numerous varieties, namely the condition of discharging sweet urine, the term becomes synonymous with diabetes mellitus. This process of translation creates wider repercussions in the nosological system: *prameha* in this new understanding is the Āyurvedic term for diabetes mellitus, but this particular form of *prameha* is not counted among the diseases of the urinary tract any more, where it would be placed according to classical Āyurvedic ideas of the disease-process. Rather, it becomes a metabolic disease and is treated as such, albeit with Āyurvedic means.

This example shows that biomedical concepts have at times a formative influence on the formulation of contemporary Āyurvedic theory and thus this seems like a clear instance of asymmetrical translation demonstrating the dominance of biomedicine. However, if we take a closer look at the process of translation that is carried out here and ask ourselves why such great pains are taken to effect a translation in the first place (would it not be easier to just take over biomedicine wholesale as it is and not

bother about translations?) this clear-cut judgment becomes fuzzy. In general, the process of translation presupposes that the target language is, at least broadly, as capable of expressing facts as the source language is. Or, to apply this commonplace notion to the case at hand, the presupposition here is that the science of Āyurveda and its idiom are as capable of conceptualizing diseases as modern biomedicine is. Taking this idea further, we cannot avoid asking how the contemporary proponents of Āyurveda view the status of their own science vis-à-vis biomedicine. Considering the fact that biomedicine with its close relationship to the modern natural sciences has a strong if not exclusive claim to being based on and representing scientific truth, the question arises what the ontological status of Āyurveda and its own epistemological foundation would be in relation to biomedicine. Surveying the writings of contemporary proponents of Āyurveda (mainly text-books written by learned authors in modern Indian languages like Simha 1994-2001, Shukla 1997) and discussing this question with Āyurvedic doctors personally, one comes to notice a rather unexpected kind of asymmetry, according to which it is the science of Āyurveda as embodied in the tradition which is actually representing true and complete knowledge. Or, as a highly respected retired professor of Āyurveda pointedly formulated it, "Āyurveda is a developed science while modern medicine is a developing science" (Ram Harsh Singh, Varanasi, personal communication, March 2010). This idea is based on a classical notion of science, which is deeply rooted in Indian culture (and has been described by Pollock [1985] in a seminal article). According to this classical notion, a *śāstra*, a "traditional science" is true and complete; it is "primordial" as it is typically said to have been revealed by the creator himself. This concept is often combined with a narrative of parts of the science having become lost in the course of history; any kind of scientific progress is in this context understood to be only a rediscovery of lost parts of the *śāstra*. This narrative is not limited to the traditional sciences of the Indian culture but is also reflected in a general historical discourse which forms part of the so called renaissance of Indian culture in the 19th and 20th century (cf. Leslie 1992 and 1998). A recurring motif in this discourse is the notion of an ancient golden era of the Indian culture, the achievements of which were lost or even suppressed during the intervening era of foreign dominance (first by Muslims, then Europeans, to put it simply). So if contemporary proponents of Āyurveda identify the modern biomedical disease-entities with classical Āyurvedic diseases, they are re-constituting lost knowledge and at the same time taking part in the larger cultural project of reclaiming an alleged golden era of Indian culture.

Thus, we see that in addition to the apparent dominance of biomedicine there is a different kind of asymmetry, one that is perhaps not as easily perceptible as the first one, in which Āyurveda happens to be the dominant partner. Āyurveda thus incorporates biomedical ideas by translating them into its own system without giving up fundamental Āyurvedic notions. Seen from a more traditional perspective the processes sketched above would be described as an incorporation of biomedical ideas into the – true and complete – science of Āyurveda and not as an example of biomedical influences on it. For the status of Āyurveda and its contemporary proponents this means that they strongly assert the validity of their own medical tradition in this age when biomedicine is dominant. The fact that the arguments for this proposition coincide with and are enforced by a larger discourse in contemporary Indian society reminds us that even developments in the seemingly autonomous field of medicine cannot be viewed in isolation from the social and political context. In this context one should not forget that biomedicine and Āyurveda in contemporary India not only compete for scientific validity, but also for political influence and finances. Presently, it is biomedical institutions that receive by far the largest share of public finances.

Conclusion

In the two projects presented here the complexity of the translation processes involved in the transcultural flow of biomedicine is clearly evident. These processes of translation are informed by the scientific concepts of biomedicine as much as by concepts of the respective other medical system, be it lay-concepts of psychic disease as in the case of psychiatry in rural north India or scholarly concepts of Āyurveda. Cultural and social circumstances might enforce certain aspects of these translations as well as

economic factors, such as the allocation of public spending on health. In the long term these translation processes might even change the face of biomedicine and result in very local manifestations of an allegedly global scientific medical system.

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Stress and Modern Work: Ethnographic Perspectives from Industries in Bangladesh

Christian Strümpell, Hasan Ashraf

Introduction

Less than a century ago Western medical science developed the concept "stress" which, after the Second World War, was rapidly taken up and disseminated by the mass media and since then permeates everyday discourse (Young 1980: 133). In Western Europe and North America, stress is *the* dominant trope on the predicament of modern fast-paced and success-oriented societies, especially in the context of modern work. About one out of four European workers reports having to work at very high speed all or almost all the time, and in the USA one out of four workers complains about being frequently burned out or stressed by his or her job (European Foundation for the Improvement of Living and Working Conditions 2006).

Correspondingly, it is occupational psychology that provides some of the dominant academic models on stress, the "job-demand-control"-model (Karasek and Theorell 1990) and the "effort-reward-imbalance"-model (Siegrist et. al. 2004), both of which emphasize that social factors are crucial for "buffering" the "stressful" work regimes workers and employees face today.

With (neoliberal) globalization, success-oriented Western work regimes and life-styles, accompanied by stress, are allegedly spreading across the globe, especially into the Asian growth economies. Nevertheless, though social factors occupy a prominent position in analyses of stress, anthropological engagements with the concept itself as well as the discourses and practices surrounding it are almost non-existent. Among the rare exceptions is Allan Young, who critically enquires into the discourse on stress. He claims that the contemporary pervasiveness of stress rests on the "congruence between the ideological content of the stress literature and […] the beliefs most middle class Americans hold about man's social nature" (Young 1980: 133). It is this congruence that renders the stress concept commonsensical, i.e. a concept "mirroring the real conditions of existence" (ibid), describing them without distorting them. By pointing to this ideological dimension of stress Young explicitly aims neither to challenge the scientific facts stress research has produced, nor to deny the reality of the suffering experienced by "stressed" individuals (ibid). Instead, his aim is to reveal how the production in discourse and practice of a concept such as "stress" opens up at a socio-culturally and historically contingent moment certain possibilities of "being in the world" and at the same time forecloses others (cf. Hacking 1999, 2002).

In the same vein, we aim to establish in our respective research projects how "stress" is discursively and practically produced in Bangladesh. We aim to trace how "stress" relates to local, Bangla concepts for strains, felt imbalances between efforts and rewards, or a felt lack of control over external demands, how it augments or replaces them, and how it shapes subjectivities. For obvious reasons we chose industrial workers in the "sweatshops" producing for multinational companies or in other factories as focus of our respective research projects. Since our research projects are still ongoing, our aims in this article are more modest. We will confine ourselves to mapping what Robin Root (2008) has called in a different ethnographic setting "risk assemblages", i.e. the plural array of concepts, narratives and practices that constitute the lens through which occupational hazards are viewed (cf. Cross 2010). We will map risk assemblages as we encountered them in our respective research sites: garment factories and rolling mills in Bangladesh's industrial, economic and political capital Dhaka.

The Garment Industry

Background

Bangladesh's economic transformation from a rural subsistence to an urban, private-sector-led export-oriented industry started with the advent of the global ready-made garment (RMG) industries since the late 1970s. The first boom in the RMG sector took place in mid-1980s and thereafter the rapid expansion of the sector drew ever more people from rural areas into urban factories. Currently, Bangladesh is the 3rd largest RMG exporter in the world, a "success" that is based on low production costs including cheapest labor in the apparel sector. This multi-billion industry constitutes the main export earnings of Bangladesh (78% in 2010 and counted US $15.56 billion) and employs more than 3.6 million workers, of whom nearly 80% are women. Employing women as garment factory workers was "an ingenious innovation of the nascent Bangladeshi industrialist" (Ahmed 2004:38), but fits well into the global process of the feminization of the labor force in so-called Third World countries since the 1970s (Pearson 1992).

The media and successive Bangladesh governments portray the country's garment workers as the "pride" of the nation and female workers as the "golden girls", an image that also serves as an indicator of Bangladeshi women's emancipation in popular national and global discourses. These powerful images of industrial success and social change obscure the daily reality of the garment workers in and beyond the factories, which are as much produced by a factory regime based on a high level of job insecurity,

tremendous time pressure, violence, and sexual harassment of women workers, as by aspirations of upward mobility.

The central focus of Ashraf's research and this section of the article are the perceptions of Dhaka's garment workers on the factory regime they are subjugated to and their understanding of the "stress" they experience, as well as other health hazards and risk factors this entails. To gain an anthropological understanding of these perceptions and the ways they are shaped by, or shape, factory regimes, Ashraf visited various factories and worked in a typical medium-sized non-compliance RMG factory[1] (located in the North-West part of Dhaka) as a line quality checker from August 2010 to November 2010.

The Local Garment Factory Regime

Single RMG factories or the conglomerates making up "export processing zones" operate as economic enclaves of global production chains, they exhibit characteristics of regimented production systems. In general, entry and exit to and from the factory are highly restricted. Full-time professional sentries monitor the entry and exit of workers around the clock, management staff, input goods and finished products thus exemplifying the level of distrust with which management views their staff. The main monitoring exercise is the body checking of workers and mid-level management staff at the factory gate when entering and especially when leaving the factory. Without a special permission of the production manager it is almost impossible to leave the factory building during working hours and also within the factory or even between assembly lines the mobility of the workers is closely monitored by the management. This constant restriction on their mobility is experienced by workers as a massive strain and they often say that the factory is nothing but a prison.

The organization of the workers on the shop floor involves gender-based control, as most of the line supervisors and quality controllers are men while machine operators and helpers are mostly women. The use of highly abusive words is practiced to control the workers, and sexual harassment is commonplace. The "line layout" or arrangement of the machines is designed depending on the type of work-order with the goal of obtaining the maximum production output within the shortest possible time. The target thereby is to reduce the production time and cost as much as possible. The model of assembly line production system followed in the garment factories in Dhaka contains a self-control labor mechanism derived from the conflicting goals of maintaining quality and simultaneously increasing the quantity of production. Both are tied to the daily production target, which is mandatory for the workers. The Floor Quality Controller and his team members control the overall quality of products and the Production Manager (PM) and the line supervisors are assigned to keep the production pace up.

Fig. 1: Women working at the sewing machines

At each sewing machine, while the operator aims for a higher production output per hour, the helper's role is to check alterations and the quality of the product (Fig. 1). Helpers are repeatedly instructed by the line supervisors and line quality controllers not to pass sewed fabric with any defect to the next machine in the line. On the other hand, operators continually put pressure on the helpers to hand over the sewed bundle to the next machine, so that the operators can fulfill the hourly target. A mistake in one machine slows down the production of the whole line, thus endangering the production target. This is the reason why workers exert pressure on their workmates to keep up the production pace, while the PM or line supervisors keep insisting on a faster speed of production. The tension between quality and quantity increase leads to an internal conflict amongst the workers themselves, as well as between the workers and the management staff. The conformity and conflicts among workers are another source of stress. This also hinders

the emergence of workers' solidarity in claiming rights or negotiating with the authorities. For faster production, workers are highly discouraged from any movement in the line and from leaving the machines. The management keeps the workers "aligned" with the machines. This creates a very intimate relationship between the workers and machines.

The average daily working hours in the factory range from eleven to thirteen hours a day, six days a week, apart from night shifts. Work end-time is not the same for all assembly lines or output tables. It mainly depends on the production target for the day, and the line supervisors keep a few operators and helpers to finish the daily target of production or to do alterations on items returned to the line from the output table. In many instances the weekly day off was cancelled in order to meet the shipping deadline.

After going through all these processes of the production systems, the payment of wages and overtime often has no fixed date. Delayed payment makes workers' lives harder as it delays the timely payment of the house or room rent or credit in the neighborhood shops. Crossing out overtime hours as a form of punishment leaves deep scars on the minds of workers since they remain without pay for the labor they have given to the factory. Above all, jobs in the garment factories are unstable. Firing workers on the spot and threats of doing so are very frequent. This job insecurity gives the workers a feeling of mental vulnerability.

Risk Assemblages Around the RMG Sector

Commenting on her situation, Nilofar, Ashraf's co-worker, recited the Bangla proverb *bol bol nijer bol; jol jol nodir jol* ("Your own labor resembles the water of a river"). She thereby expressed the workers' shared notion that labor is the only way to make a living, as the river can only exist as long as the water is there. Nilofar concluded by saying that the day would come when her body would not be able to work at the demanding pace of the factory, and that would be the end of her job. Like most of her co-workers, she was convinced that work in a garment factory would soon wear her out. The term "stress" that permeates Western everyday discourse on demanding jobs is not used by the garment workers to describe their working environment, but the strain is omnipresent. The whole working day one hears sighs of deep grief. Workers say "I can't do any more" or "This is beyond my limits" or that *tension* and *chaap* ("pressure") are overburdening[2].

In addition to the tension and pressure, workers complain about specific health problems caused by the particular tasks to which they are assigned. According to workers' understandings, different types of sewing machines cause different types of bodily distress, resulting in particular physical problems or syndromes. Each machine requires a specific seating position and bodily technique to run it. Different types of stitches require a different pace of the motor for stop-start-pause of the sewing machines, and all of them require the workers' full concentration to avoid mistakes. RMG production is thus based upon a very intimate man-machine unit. Human bodies are perceived as an associated and integral part of the machines. Working monotonously on specific machines causes different kinds of bodily discomfort i.e. headache, neck pain, back pain, shoulder pain, pain and burning of the eyes, aching joints and pulled muscles. In the long run these problems may become chronic. The maintenance of the machines is also a crucial task for the workers to keep up a smooth production. Furthermore, the electric sewing machines are connected to an overhead power strip placed above each production line and alongside a row of bright white fluorescent lights that generate a heat that dries out the body when the factory – as is generally the case – does not maintain exhaust-fans. The feelings of fatigue and general weakness are often related to the electricity that "sucks out the blood and body energy". In addition to the tension and pressure caused by the pace of work, the pains deriving from long periods of sitting bent over machines, and the suffocating heat, everybody in the factory, even the director and the PMs, was convinced that the workers' exposure to dust and fibers cause, amongst other diseases, tuberculosis. After a couple of hours of work when heads, machines and hands are covered with fabric dust and the hair has become white, one can often hear jokes such as "it's snowing" or "we all have aged". Workers are provided with facial masks allegedly to protect themselves from dust and fibers, but

they are rarely worn. Wearing these masks makes it almost impossible for workers to communicate with each other, and their rejection is an attempt to retain some minimal agency.

The mutually contradictory demands of time pressure and production target are the key to a higher rate of production for the factory and a great source of stress for the workers. On average, most of the workers spend more time in the factory than at home. The hostile working environment makes them hate their job. On the shop floor Ashraf also frequently heard remarks such as "Working in the garment factory means you agree to reduce your lifetime". For the workers themselves being a "garment worker" means being exploited and betrayed by factory owners, by political leaders and the government, and by the global clothing firms. This sense of betrayal also corresponds to the dominant image of the garment workers in public discourse as a social group with loose morals, which is due in part to the perception that "garment girls" are more independent than most other women as they are working in public space with male strangers, beyond the "proper" control of their family. It is this alleged "loose morality" which makes it difficult for "garment girls" (*garments-er meye*) to have a good marriage back in the villages or in the town, as Ashraf was often told. For male garment workers, it is a continuous grievance that "You cannot get married with the money that you get from this job because it is not enough to maintain a wife". The threat this poses to their masculinity often results in depression or in aggressive behavior towards management as well as towards their – especially female – co-workers. A common statement workers gave is: "If one had not committed a crime or sinned in life one would not join the garment factory". Taken together all this creates a low status of garment worker in the society as a whole and their consequent struggle for dignity is a constant source of stress, though they do not express it in such terms.

However, when managers and factory owners speak about the RMG business they often say that it is mere "stress", thus using the English term itself. The range of issues threatening the smooth running of the RMG business is indeed very broad and includes the work-order negotiations with Western buyers on the production quality and the adherence to delivery within the agreed so-called "lead-time", it includes concerns about energy and power cuts, massive labor riots, local political unrest, about a volatile international cotton market, and about competition with other RMG producing countries. Aside material gain, factory owners and senior management often told that these high risks and uncertainties involved in the industry make them suffer from sleep related problems, loss of appetite, repeated headaches, continuous anxiety, mental outburst, cardiovascular or heart related diseases and diabetes. As Ashraf was told by the factory director, "responsibility" of running the whole factory is a job of extreme tension and certainly unhealthy. Of course, "stressed" managers get much higher rewards for the "stress" they suffer from and most of the threats to the profitability of their business they successfully pass down to the workers they manage. However, what we do want to emphasize is that a discourse of "stress" exists around Dhaka's RMG industries, but that it remains confined to the middle and upper classes.

Moral Politics

All actors involved in the RMG sector share the hope that the industry keeps growing at its rapid pace. Industrialists and managers thrive for better market shares and profits and workers hope for "living wages" and other labor rights. Also the government has a vital interest in the continuous growth of the RMG business and lately introduced an "industrial police force" to protect especially the RMG sector from political turmoil. On all these different levels, actors underpin their claims with particular notions of morality to strengthen their own positions and interests.

On the factory floor, management frequently tries by various means to morally oblige the workers to work more. For instance, managers often tell workers it is the company that provides the money that enables the workers to eat, pay rent, and buy other things, and that the latter should therefore feel obliged to justify their wage, to make the money *halal*, or religiously-morally justified. Workers of course know (and experience frequently) that they are treated by management as just a commodity that is hired and fired at will without any moral

entitlements. They therefore reject the moral claims management makes on them when the latter is under pressure from Western buyers to deliver on time and therefore depends on the workers' overtime work. As the workers put it, "We are not married to the owner or to the company so why should we do unpaid overtime?!?".

Workers face the moral claims, not only of management, but also of the national and state governments in their struggle against their insecurity, exploitation, and the health risks that come along with it, but also governments and state administration. After some massive labor riots in July 2010 leaving several factories vandalized, major political leaders claimed that a "true worker" would never destroy his machine or factory because it provides him with his bread. Furthermore, factory owners as well as political leaders regularly invoke the moral dimension of nationalism. Thus, the current president of the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), Shafiul Islam Mohiuddin (former second vice president in 2010), claimed in an international apparel and textile exposition in Dhaka in 2010 that the "RMG sector is no longer an individual property now. It has become a "national asset" and it is our noble duty to support this industry wholeheartedly. The vision of economic freedom is no more a myth. 'Made in Bangladesh' has become the ambassador of our identity in the developed world" (BGMEA 2010:16). The president, other RMG industrialists and politicians of the major political parties do not tire to emphasize that all activities that go against a smooth running of the RMG sector also go against the interest of the nation at large and they allege that labor riots are instigated by foreign governments keen to grab Bangladesh's position as the global garment factory.

We suggest, very tentatively, that the labor riots might be relevant from a different vantage point. According to Young (1980: 133), the stress discourse prevailing in the West "banishes the arena of conflicting class and group interests from the real conditions of existence" and thus de-politicizes them. We hope to have shown that in Bangladesh this discourse has so far not gained any hegemony over the labor force. How this shapes workers' subjectivities and how these inform conflicting class interests around the garment factories still needs to be investigated.

The "Iron World"

Away from the ready-made garment factories, at the southern end of the old town of Dhaka and on the banks of the river Buriganga lies the industrial estate of Postagola. The river connects the industrial estate with the world's major dumping yard for deep-sea vessels, the ship-breaking yards in Bangladesh's southern province Chittagong which function as the country's major source of steel (Rousmaniere, Raj 2007) and from where Postagola's traders obtain the plates they resell to other businessmen running the local rolling mills. The rolling mills produce iron rods, angles, and bars for the construction industry that booms alongside Dhaka's skyrocketing real estate market, and traders claim that profits are extremely high.

During his first visit, Strümpell was told that Postagola is an "iron world", a *lohar jogot*, an expression any visitor is bound to instantly consider rather apt. Already when approaching Postagola the air fills with the noise of truck motors, welders, gas-cutters, and above all a continuous noise of iron battering on iron. Three-hundred traders maintain small one-room shops along the two twenty-meter broad muddy roads passing through the estate. Half of the roads are covered by piles of steel plates still wearing several layers of marine paint, by groups of workers hammering and gas-cutting these plates into even and smaller ones, and by sheds for shearing machines where other workers cut these plates into slim strips of steel. These are fed into the ovens gathering under the corrugated iron roof of the rolling mill, a huge shed towering over the industrial estate.

Inside the 50 meter wide and 300 meter long mill where Strümpell worked for five weeks during his field research in August and September 2010, the motors running the train of rolls add to the overall noise. Each train of rolls stands next to one of the dozen ovens (*bati*) arranged in two rows alongside the axis of the mill and each pair of oven and rolling train is run by another businessman who leases it from the actual owner of the mill complex, a powerful local politician. Every morning Strümpell joined the group of twenty men

engaging in "packing", that is, folding four- to eight-meter long steel bars into bundles of half that length, weighing them and stacking them on a pile towards the middle of the mill nearby the gates from where they are dispatched to customers. The gang of packers works for around two hours four times a day, whenever the re-heated charge of steel strips of four ovens has been rolled out and left to cool down somewhere between the train of rolls and the factory walls. One among the packers acts as their leader, calls others to work and receives payments from the businessman and distributes them among his group, but he does the same kinds of work as anybody else in his group.

While working with the packers, Strümpell could directly observe the gang of ten to fifteen workers operating the oven and the rolls just five meters away under the supervision of a handful of *engineers* as the workers call them, or *foremen* as the businessmen do. Among the operators the *engineer* or *foreman* is the most powerful figure. He is a worker who has gathered over a period of twenty years or so an intricate knowledge (*gomor*) of the production process, the rolling trains and the ovens, a knowledge that enables him to organize the work, check the heat of the metal in the ovens, the position of the rolls and the size of the iron bars, angles or rods that are going to be rolled. He is responsible for the production, but himself works only every alternate break to regulate the position of the rolls and also has to repair the rolling train whenever one of the rolls breaks, which happens nearly every day. There are always three *engineers* or *foremen* around and their number is required because though they sit on a rusty steel chair right at the entrance gate or on the tool box opposite the rolling trains for the better part of their working day, their maintenance-and-repair work is quite physically demanding, largely because it has to be done as quickly as possible in order to avoid production losses.

On the side of the rolling train the oven has three bays, two of which are always covered by a heavy iron plate while at the third, open bay stands the *hookwala*, barely protected from the heat by his worn-out full-pants, full-sleeve cotton T-Shirt, gloves, discarded military boots, sunglasses, and around his head a cotton towel

Fig. 2: The hookwala, barely protected from the heat

(Fig. 2). With a two-meter long iron hook, the *hookwala* pulls the red hot stripes of iron out of the oven onto the floor where they are picked up with long tongs by his assistant in similar dress who drags them behind the *polishwala*, the most senior, experienced and skilled among the operators. The *polishwala* also wears old military boots, sunglasses, and a towel around his head and inserts the red hot iron bar into the slot between first pair of roll with shorter tongs. The sheared iron rods are always still bent when they come out of the oven and are thus more difficult to handle before they get continuously rolled out into evenly shaped flat bars. On the other side of the rolling train another *polishwala* receives the rod and pushes it through the next pair of rolls where it is taken up by a worker pushing it back onto the other side and so on until they come out of the eighth pair of rolls, rolled into the desired shape, two centimeters wide and around four to eight meters long. Here they are taken up by the most junior worker, normally a boy of not more than twelve to fourteen years of age, who uses a short pair of tongs to swing the rolled-out rods in an almost elegant move to the side on a pile where they are left to cool down.

The work stations at the oven and the rolls are assigned to particular workers according to their respective age and skill, reflecting in their respective pay. Among the operators, the two *polishwalas* are elder than the others, have worked for more years in the trade, and earn per six-hour-shift 120 *taka* (1 Euro equaling roughly 90 *taka*), the two operators next to them at the next pairs of rolls 80, the following two earn 70 and their neighbors 60, while the boy piling up the rolled-out rods gets merely 50 *taka*.

The operators work in a focused way without talking to each other, and in any case it is too loud for conversation when the rolling trains are running. They push, and often try to throw, the hot rods through the rolls one after the other, continuously for three-quarters of an hour. However, the work rhythm is not as monotonous as the grind of assembly line production in Dhaka's garment industries. At the rolling trains in Postagola, a worker need not attend to each rod as the rolls disgorge them, but might well take the time to pick a cigarette from his pocket, lighting it on one of the four or five rods that lie at his feet, and take a few drags before quickly pushing the rods through the next pair of rolls to his side, all the time with his cigarette in his mouth. Strümpell never heard any worker complaining about a stressful time regime, and in fact rolling mill workers do not seem to suffer one.

Furthermore, breaks are frequent: Whenever the *engineers* regulate or repair the rolling train the large motor driving it is switched off and the noise that normally forces everybody to either yell or keep quiet is suddenly stilled. The roller operators quickly gather in front of the large ventilators standing on three corners of the rolling train with the more senior among them standing closer to them so that they have a better share of the cool, almost alpine air the ventilators churn out. Workers also take such a break for drinking water, urinating, smoking a cigarette, or having tea at the stall outside the mill's premises. When a roll cracks such a break can last for an hour or two, and that's the reason why the workers celebrate every breakdown with great zest. Even when no roll cracks or nothing has to be adjusted, the foremen call for fifteen to twenty minutes' break every three-quarters of an hour.

The frequency of breaks is regarded as the necessary minimum to make the operators sustain the enormous heat to which they are exposed. The heat in the ovens is around 1200° Celsius, the foremen guess, but there is no device to measure it. The heat from the ovens and from the yellow-red glowing rods is so intense that even at the last station where the boy picks up the rolled-out rods one feels that it is too hot to sweat there and that it dries even up one's tears. Hossain, the most senior among the *engineers* or *foremen*, told me that though the work looks tough, it is in fact much more arduous than it appears and that the operators have to engage in a constant "war with the fire". The fire, the operators themselves said, goes on to burn within their bodies, even at night when they sleep. The exposure to this heat consumes their energy (*shakti*), causes them lack of appetite, fever, and a general feeling of exhaustion (*birokto* or *klanti*). The packers among whom Strümpell worked were similarly convinced of the health hazards the operators face. "Look at them," they never tired of saying, "they might earn more money than us, but of what use is it? They are all feeble and suffer all the time from headaches and fever."

When the foremen were asked how they could sustain themselves for all the years they work in the rolling mills, they answered that what counts is the right way of life and consumption of the right food. To clean the throat from the factory dirt it is important to eat bananas, and in order to cool down the body after working at ovens and rolls, one simply has to eat sufficient other fruits such as apples, oranges, grapes. This is how a rolling mill worker should behave and this is what enabled them to stay in the business for all these years and to become foremen, as the latter themselves claimed. However, the problem is that the young workers operating ovens and rolls do not follow their example, but instead purchase useless things such as mobiles and fancy clothes, and therefore do not have enough money left to eat properly. Even worse, the foremen lamented, many of these workers regularly spend their money on *ganja* (marijuana), or other drugs, or on prostitutes. To the foremen, it is their life-style that put the workers' health at risk, strains their energy, and frequently strikes them with fever.

When discussing occupational risks, the operators themselves always elaborated at length on the threat of accidents, of getting hit by one of the red hot rods, getting caught and crushed by the heavy and fast-rotating rolls, or by the large motor driving the rolls. Given the lack of protective wear and security devices, the risks posed by machines and hot steel were obvious and indeed most operators carry minor burns or scars, though none of the workers had ever seen and also rarely heard about serious injuries. Of course, we do not aim to suggest

that their worries are beside the point, but only to highlight the diverse risk perceptions co-existing around the rolling mills. We suggest that the different assessments of health risks on the shop floor both relate to the workers' gendered social identity. The operators were also anxious about their exposure to the heat, but talked about it only in a much more muted and less heroic tone. To cope with the heat they take *ganja*, which is thought to cool them down, and they were anxious to regularly consume energy drinks to regain their male energy, exhausted by the heat. Thus, their emphasis on the danger of the machines they handle is to assert their masculinity which the constant exposure to the heat is felt to threaten.

Conclusion and Outlook

Our ethnographies of Dhaka's garment factories and rolling mills reveal that workers in both sites both perceive their work as very hazardous, but for different reasons. However, "stress" does not figure among the risks workers perceive to threaten their health and well-being. This holds true, even though the imbalance between the effort workers are obliged to put into their jobs and the material and social rewards they accrue – an imbalance that is treated as one of the major causes of stress in public health literature (see introduction above) – is rampant among workers in Dhaka, especially among garment workers. This holds at least true for the shop floors where we have so far conducted our research. In order to determine how the assessments of risks, especially those that in the West are currently referred to as "stress", shape the subjectivities of workers in Bangladesh we need to broaden our canvas and take into account several other sites where these subjectivities constitute themselves, such as the urban neighborhood, the biomedical institutions the state and NGOs maintain, and the media.

As we have shown, a "stress" discourse exists in Dhaka, but around the factories it flourishes exclusively among high-level managers. Furthermore, in Bangladesh generally, "stress" is also part of university curricula and a topic of public health research, and it makes frequent appearances in middle-class newspapers, in promotions of biomedical or ayurvedic "anti-stress" medicines, allegedly healthy tonic drinks, advertised "anti-stress" teas, and the various energy drinks that promise to "quickly boost" one's work energy. The latter are widely consumed by the workers in both garment factories and rolling mills to recover from physical and mental weakness, *tension*, pressure (*chap*) or exhaustion (*birokto* and *klanti*), though the concept "stress" has not (yet) entered the assemblages of risks workers invoke. Following Young (1980), this might have profound consequences for the workers' possibilities of "being in the world" and, accordingly, for their political struggles, but this remains to be investigated.

Notes

[1] A "compliance factory" receives direct orders from Western buyers and complies with a so-called buyer's code of conduct including certain "labor standards". Therefore workers in "compliance factories" are thought to be better off than workers in "non-compliance factories".

[2] The word "tension" originating in English, is now very widely used in South Asia. The Bangla word *chaap* means – put pressure upon; insistence or importunities or forcing; a load; a burden; be pressed (Ali et al. 2007: 195).

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Experiencing a Natural Disaster in a Tibetan Refugee Camp. Who is Present When Life is in Danger?

Nike-Ann Schröder

"When the flood was coming in the night, my father shouted my name and 'The flood is coming! The flood is coming!' […] We went outside dressed only in our underwear and chappals […] and I tried to close the door and my younger brother also helped me, it was difficult pushing against the water. At that time, the mud was coming outside, and our nearby restaurant (…) I didn't see it because it was so dark, but I could hear the sound: 'Dadadada', within few seconds it was destroyed – finished. I said: 'Tenzin, you go and help father and mother and I will just support that door. But then few minutes later, I thought that it would be better to run. (…) We all managed to go inside here, [in this room], at that time we had only one torch. It was very dark. And this sound was so loud: 'Tadataada'. And also there was this very big thunder. We all stayed here and my father was praying for the Dalai Lama, Palden Lhamo and all the protectors, you know? So we prayed and my mother also shouted [prayers] and also Tsering Dolma, my eldest sister. My father said, 'We have no choice: we are all going to die.' Just like that, he said. Yes. My father said that now we are going to die and that we haven't a chance.
So I think that the old man, the father is the head…. and the father said: 'We are all going to die.' I thought: 'Why?' Also I was praying to Lord Buddha, then me and my brother went again outside. Next to this wall here [points]. And the water was coming with such force! All the water came here, to this side. 'Buarrorroro', such was the sound. The flood was coming, and everything was full of water. It was coming right into this room."
Sonam, 37 years, Choglamsar

Introduction

This paper is concerned with an unpredictable and extremely stressful situation – a natural disaster – or to be more precise: its appraisal and reactions to by different Tibetans in the Tibetan Refugee Settlement (TRS) Choglamsar in Ladakh, India (see photo on the title page). After a short introduction I will give an account of the disaster as a particular situation, described from the perspectives of different Tibetan families, to locate similarities and differences in experience, interpretations and coping strategies.

This topic is a small part of research for my dissertation project and came into being only because the disaster happened during my field-work stay in India: I have conducted research on living conditions in a Tibetan Refugee Settlement in India, along with the application of the Tibetan Buddhist tantric meditation and ritual healing method of *gcod* ("cutting"), and its transcultural transfer from Asia to Europe. This project is being carried out as part of Project C5 "Stress and Stress Relief", an inter-disciplinary project combining anthropology, history of medicine, and public health in the "Cluster of Excellence Asia and Europe in a global context: Shifting asymmetries in transcultural flows". Our group investigates situations and life circumstances which are presumed to create stress, along with applied methods for stress relief, with the aim of analyzing how people understand and deal with stressful situations.

In Western discourse, "stress" often is considered a phenomena related to "modernity" and is applied to conditions arising from changes in working procedures, new types of

media and communication networks, and networks of globalization with a rising need of mobility in the field of education and work procedures, which have led to a multiplication of demands on individuals including an increase of the amount of information that must be processed in daily life. In scientific discourse, there are many different ways to conceptualize "stress": it can denote environmental conditions, reactions to them, or a certain psychophysical state. Following Ian Hacking's (1999: 100) and Bruno Latour's (1993: 15ff.) perspectives on the creation of illness categories and scientific "knowledge" or "objects", "stress" can be also analyzed as a social construction which evolved in a specific time in a particular paradigm. In a transcultural perspective we have to be aware that many issues enclosed in the "stress and coping" paradigm can be conceptualized differently, be located in different emic fields, and lead to conclusions others than those of Western stress researchers (Schröder forthcoming). It must be remembered, however, that the suffering of people undergoing "stress" is very real.

In this paper, two perspectives from the corpus of "stress" theories are employed: the first is a classification of stressful conditions into different categories such as natural disasters, major life events, general or daily hassles, and assumed or anticipated threats which create stress. These categories are problematic (Lazarus and Folkman 1984: 12 ff., 306 ff.), but they can serve to identify probable stressors. A generalizing parameter-oriented stress research has been criticized by various researchers (a.o. Lazarus 1999: 49f; Chun et al. 2006: 29) for objectifying and quantifying people's environment, and either denying the impact of cultural differences (Chun et al. 2006: 29) or overemphasizing cultural differences while similarities across cultural groups are often not regarded as significant and thus find no entrance in cross-cultural research reports (Lazarus 1999: 65). Considering these critiques in stress research, I will look at one particular stressful situation and present highly contextual accounts to locate the subjective experiences and behaviors of different people exposed to the situation.

Secondly, I will give an account of appraisals which form the experience and determine reactions to it. This approach follows the "transactional" perspective on stress introduced by Richard Lazarus who defines psychological stress as "particular relationship between the person and the environment that is appraised by a person as taxing or exceeding her resources and endangering his or her well-being" (Lazarus and Folkman 1984: 19). His model emphasizes the importance of cognitive appraisal and coping as two crucial processes that mediate the person-environment relationship. Whether or not a person appraises a situation as stressful depends according to Lazarus on situational properties as well as personal factors. The degree of stress differs depending on whether the situation is appraised as "challenge", "threat", or "harm/loss". The appraisal is highly determined by a simultaneous evaluation of coping resources (Lazarus, Folkman 1984: 53). For transcultural stress research this approach is promising since it provides research parameters to locate cultural and personal similarities as well as differences in appraisal and coping strategies.

The descriptions start with a personal account of the incident as experienced by my Tibetan host family and me to give an introduction into the general situation. This is followed by three case studies of Tibetan families: by describing the disaster situation as experienced by the different families, personal circumstances prior to the flood, coping strategies and coping resources, and the outcomes of coping strategies, the interrelations of these fields shall be located as well as similarities and differences between the cases.

The Initial Situation: The Natural Disaster in Ladakh

In the night of the 5th to the 6th August 2010, cloudbursts and flash floods followed by enormous mudslides caused death and destruction in Ladakh on a massive scale, and filled the Indus River with huge amounts of water, thus contributing to the disaster in Pakistan which happened at the same time. According to the Ladakh Buddhist Association 200 people died in Ladakh, between 600 and 800 were reported as missing, and 500 people were severely injured. Around 1000 buildings were destroyed or severely damaged; fifteen schools, the governmental hospital in the capital Leh, the radio station and telephone exchange as well as five

major bridges and twenty village bridges had been destroyed or completely damaged. Many farmers lost cattle and crops, and lots of people lost all kinds of properties. It was the worst natural disaster Ladakhi people and Tibetan refugees could remember.

A Personal Account

In the night of the disaster, I and the Tibetan family I lived with woke up and found the nearby road in our normally desert-like area had turned into a fast-flowing river while an unusual monsoon-like rain was accompanied by thunder. It was dark night outside and inside, with no power for lights, and we quickly woke up all family members. After some minutes, seven children, grandma, grandpa, aunties and uncles all squashed into the brother's jeep with the most necessary things to take: jackets, the statue of the Buddhist deity Guru Rinpoche, torches and some blankets. Then we tried to get another small road and went to one auntie's house which is built of stones and is located at a higher elevation. When we arrived there, the nearby irrigation channel was already filled with mud. We went inside the house and tried to get all children to sleep, meanwhile all younger men went out to find out what had happened.

Yonten came back only in the early morning, covered with mud all over and with bleeding feet. He told us that he had gone to the part of the camp which was most affected and that there had been another flash flood and consequent mudslide, covering lots of houses and bringing rocks of enormous size. Together with some others, he had stood in a former irrigation channel now full of mud and had tried to find people in there by reaching in with his hands. The mud was dangerous, swallowing everyone stepping on it with no chance to come out without help. He and the helpers had worked with big sticks, testing the ground before making a step and they had thrown away their shoes since it was dangerous to wear them. This small group rescued five people, but also pulled seven dead bodies out of the muck. The army was also there to rescue people, and dead bodies were lying everywhere.

The next day black clouds were hanging low and everybody feared that more cloudbursts and flashfloods would follow. We walked upwards through the settlement and asked a family owning a house next to a hill, whether they could give us a room for shelter. They agreed and we all moved to the place which offered the possibility to climb a nearby hill in case of emergency. The Guru Rinpoche statue was placed carefully on the window-sill which was the highest place to put an item since the room had no furniture.

We climbed the nearby hill, trying to get an overview of the situation and locate which areas might still be in danger. The hill was already full of cars and tents. On top of the hill, there is a new temple that is still a building site. Inside, hundreds of people were crowded into the small building, everyone having lost or left homes for fearing another flood.

When we went to the part of the Tibetan Refugee Settlement which was affected worst, mud and destruction was everywhere. What we saw made us cry. We used long sticks to avoid getting into deep mud, and the main road was not recognizable. There were huge rocks everywhere, piles of cars, windows and mud, and hundreds of soldiers who had blocked the areas which had been hit worst, looking for survivors and dead bodies. Many people asked us whether we had seen a particular person. Some houses of friends just didn't exist anymore, a discovery which let us fear the worst.

We also had a look at our home, found it in danger of being flooded by water, but not destroyed. We built a provisional wall of stones and sand to protect the house, and then took some pots and dishes and grandma opened her shop to fetch groceries for cooking. Finally we went back to our asylum, where some family members cooked dinner for all. We ate together and went to sleep while the men of the family took turns in staying awake and on guard during the night. All family members worked together with clear cut role allocations which helped to solve practical problems effectively and contributed to a feeling of some safety: the situation was extreme but being in a group of fourteen people facing the situation together made it a lot more bearable. This counted not only for staying and organizing daily life together: since neither TV or radio, nor telephone lines worked, we depended on gathering

information heard by all ears and seen by all eyes of the group to get a little idea of what had happened and what could happen later.

My Tibetan host family on the 2nd day after the flood

At the same time the experience of the disaster was long-lasting: while living in a state of waiting in insecurity many people developed the habit of looking up at the sky every few minutes to check whether clouds would come and bring another cloudburst. During nights, we were "on guard" and unable to sleep. This state was experienced by some people for days, others for weeks and still others – for example those who had experienced being trapped in mud and water in their own sleeping rooms unable to leave without help from outside – for months.

The Family of Gawa Dorje

Like most flood victims, the family of Gawa Dorje was caught in the flood while sleeping. I began this article with his son's account of the night of the flood. The whole family managed to escape from the water and mud which not only destroyed their nearby shop and restaurant almost completely, but also flooded their house in which they had been sleeping. They gathered in a small meeting hall nearby, but also this place was not safe.

While his parents and his sister were praying, Sonam and his brother went outside to find a way for the whole family to get out of the affected area. Being outside in the dark with the water everywhere around them, they suddenly heard a Ladakhi woman calling for help while being dragged away by the water. They saved her and together went back to the meeting hall, where the father advised: "Go, go! Now we go! We will go outside and Buddha will show us a good way where to go."

They found a safe way out. The whole family had thought they would die, but had also relied on protection through Buddha, various deities and the Dalai Lama. When after some days the information about victims and destruction through the disaster became more clear, it appeared that not a single Tibetan victim living in the TRS had died – which was almost unbelievable in view of the destruction and the huge amounts of giant stones, mud and water which had come down on the camp, and the many dead bodies of Ladakhi villagers found on the area of Choglamsar, taken down there by the water – and that the palace of the Dalai Lama had not been destroyed by the flood although it is located next to the Indus river. All Tibetans attributed this outcome to the spiritual protection by the Dalai Lama.

The biography of Gawa Dorje provides additional information about the antecedents possibly influencing appraisals of "stress" and strategies for coping with it: he came to India after fighting in the Tibetan resistance against the Chinese occupation of Tibet. When he arrived in Ladakh in 1961, there had been no help for the refugees since all aid structures were only established later after the settlement was founded in 1963-65. Relying on the family's own resources, he bought a piece of land and built a house. First he had joined the Indian army but due to an injury through an accident at parachute jumping, he had to resign and had to look for another source of income. The family decided to build a second house for a restaurant and a shop. They rely on many resources: family and other social networks, deep faith in the Dalai Lama and Buddhist deities and their spiritual protection and last but not least confidence and trust into own practical problem-solving abilities. Since his son-in-law died in a car accident when his grandson was only few months old, Gawa Dorje carries the baby on his back the whole day when his daughter and mother of the baby goes to work as teacher in school. He comments: "One should not just sit down and cry, but do what is necessary."

After the disaster the family stayed in tents provided by the army in a flood relief camp with 200-300 other Tibetans whose houses had been destroyed or flooded. When later with the help of NGOs we could organize support for emergency repairs of damaged houses and additionally offered 1000 mud bricks per family who would start to rebuild their destroyed house, the family of Gawa Dorje took this offer as one of the first and faced the challenge of mobilizing family and friends for repair and rebuilding their houses, while many other families preferred to stay in the flood relief camp and wait for the government to provide new houses. (This was a futile hope: the government did provide compensation money later, but only just before the winter began, and it did not provide new houses in Choglamsar). Just before the winter season terminated all building activities and the flood relief camp was dissolved, the family of Gawa Dorje moved back into their house and even rented out their newly rebuilt shop in order to gain an income.

Tenzin and Dolkar

Two days after the flood which had destroyed parts of the Tibetan Refugee Settlement (TRS) other parts of the camp, though not affected by the water, were virtually abandoned by most of its inhabitants. Fearing that the water and mudslides would come back and destroy more houses, most of them had hastily packed some things and fled to areas located higher than the settlement. They camped on top of hills in the area, which were white from the numerous tents pitched there. Only some old people had stayed back in one camp of the settlement; two of these were Tenzin and his wife Dolkar, an old couple with no children. When I went to see them, I found them in a state of acute distress, and they told me: "We can wait here and die [in case the flood comes here], it doesn't matter anyway." These words cut into my heart and while drinking tea in their small kitchen and looking at this Tibetan couple, I could see the whole desperate situation of older people without family support. They had simply surrendered to the situation: although, like their neighbors, they feared the threat of the water returning and destroy their camp, they had on the other hand no resources to take any action and just remained where they were in a kind of paralyzed state. While appraising the situation as being exposed to a life-threatening situation, they had anticipated the worst outcome and accepted the probable loss of their lives with despair.

Before the disaster they were already in a difficult situation. After settling down in the TRS, Dolkar had opened a small shop at the road to Leh and sold groceries, while her husband first worked for the Indian army and after retirement had sold small jewelry items to tourists in one of the Tibetan refugee antique-markets in the center of Leh. Dolkar had been ill for several years and finally had to give up her small business since she was bedridden. The situation got worse when a year before their only son, who had just married and was father of a small child, died in a car accident in Manali. Following that tragedy, Dolkar suffered from a depression and was unable to stay alone. Her husband Tenzin was torn between the need to take care of his wife, and the need to go to Leh to earn money. Additionally, he suffered from a sore foot which caused him pain when walking. So the old couple would spend whole days just lying on their beds in their small kitchen and living room, their only joy being a small garden with colorful flowers that they could see through the open door. The only luxury they had was to spend some money on water for those flowers. They waited for visits of their daughter-in-law with their grandson, but she would only come rarely since her own family did not like her to go. Dolkar wept when telling me about her grandson and how she was longing to see him since the little one was the only what remained from her late son.

The outcome of appraising the natural disaster as a threat which could take their lives, and their surrender to that loss, is explainable when considering that the greatest loss possible had already happened one year before. With the death of their son, their future had died in a twofold way: their son and heir was dead, the only person who could care for them when they became too old and sick to help themselves. Through the bad relation between the two families, also their contact to the grandson was very limited. Deprived of all resources, they had given up.

Some weeks later, I attended the ritual they had organized for the anniversary of their son's

death. Not only had many neighbors come, but also their daughter-in-law and their grandson were there. Some days after that meeting, Tenzin made his way to his daughter-in-law's family of Gawa Dorje and helped them to rebuild the shop and restaurant that had been destroyed by the flood. Dolkar meanwhile went to the temple and prayed, so slowly both of them made small steps to regain the lives that they had surrendered to the flood, even the water had not even touched their home.

Pema Wangchuk and Tashi Dolma

Pema Wangchuk and Tashi Dolma are another elderly couple in their seventies who live in the neighborhood of Tenzin and Dolkar, and they, too, remained in their home when almost all other inhabitants decamped to the mountains in the days following the catastrophe. Like the couple described above, they have no children who could help them in this situation: Tashi Dolma's son is a monk who lives in a monastery far away, and Pema Wangchuk has no children since he was sterilized while imprisoned by the Chinese army in Tibet. Although their general situation regarding the resources available for coping at first glance seemed to be similar with those of the couple described in the previous section, their appraisal of the situation and their reasons for staying in the camp differed greatly. When I met them they were happy and relaxed, and laughed a lot while sharing the obligatory tea during my visit. "Why should I run to the mountains and camp in a tent, when my house is much more comfortable?" Pema Wangchuk said, explaining: "I made a *mo* [divination] and it told me that the water will not come here".

The background of these two is complex: they have lived as a couple for more than ten years; they met after both of them were widowed. Tashi Dolma takes care of the household while Pema Wangchuk used to work at the airport for thirty years, a job he had to quit four years earlier due to knee problems. Before his escape to India from Tibet, he witnessed the Chinese army killing his father, after which he joined the armed resistance movement. After being arrested, he was imprisoned for about eight years and experienced torture and other hardships before he could escape to India. After his arrival in exile, he became a Buddhist tantric practitioner and ritual specialist. Both Tashi Dolma and Pema Wangchuk are devout Tibetan Buddhists who spend much time in prayer and rituals, and rely on protection through the Dalai Lama, Buddhist deities and the mythical King Gesar of gLing who is seen as both, warrior and deity. Not only is their faith strong, having helped them to overcome many difficulties; as a tantric ritual specialist Pema Wangchuk is also able to undertake ritual action in case of any problem. Therefore his neighbors approach him when they face problems which are not solvable by other means, and he is accustomed to acting in such situations. When talking about the disaster he repeatedly tells his eye witness account of an incident in a former flood when a tantric practitioner used blessed wheat corns to turn the flow of the water, thus preventing damage to some houses. Pema Wangchuk is confident that he has the same means at his disposal.

As an outcome of their strategies, for Pema Wangchuk and Tashi Dolma there was no reason to worry, since in their eyes there was no threat, not even a stressful situation. Their appraisal was based on divination, and even had the divination been more threatening, they would have had an appropriate action fitting with the threat of coming water. They would have faced it with ritual means, thus rather expecting a challenge instead of a threat. Their coping resources include faith, tantric means and Pema Wangchuk's experience of surviving life-threatening situations before. These resources seem in their case to buffer against distress which for many other people was created by the fear of further cloud bursts.

Conclusion

When a natural disaster occurs, it has the potential to create a highly stressful situation. In the beginning, there is an immediate threat and people usually act to save themselves. This threat varies in its intensity: the family of Gawa Dorje faced a direct threat to life since their house was destroyed, while I and my host family experienced the threat of the house being flooded. In the other two cases, the families experienced a potential threat, not being sure whether the disaster would strike their settlement or not. Such potential threat was prominent for all people following the disaster,

since they did not know if the rains would come again. Waiting in insecurity and the flood victims staying in the new environment of the relief camps while being uncertain about the future created another stressful situation. Additionally, many victims were exposed to an ongoing stress created by their traumatic experiences, in which the initial dangerous situation has been kept actual for a long time.

The various appraisals of the situation were different and underwent changes in some cases. The directly affected family of Gawa Dorje first appraised the situation as desperate, and then, following the initiative of his two sons to search for a way out, faced the challenge and escaped from the dangerous situation. Their loss of the house was mediated into the challenge of rebuilding and repairing the damages to it. The family I lived with was exposed to a potentially dangerous situation; we appraised it as threat and immediately took all efforts to save the whole family. The potential threat later changed into a challenge to help the flood victims. Tenzin and Dolkar who were exposed to a potential threat surrendered their lives, appraising loss, and only found their way back to a normal life after a long time. On the contrary, their neighbors Pema Wangchuk and Tashi Dolma did not appraise their situation in a potential threat as stressful, since by means of divination they were sure that there was no danger.

Coping strategies and resources for coping included practical problem-solving strategies in the cases of Gawa Dorje and our family who both could rely on practical coping resources. Tenzin and Dolkar remained paralyzed, unable to react since there were no resources available for them. All people who had family networks relied on these and other social networks. Faith and related strategies and means were employed by Pema Wangchuk who relied on protection through Buddhist deities and divination, by Gawa Dorje's family who prayed in the situation of despair and felt to be guided during their way out of the water; and by my host family who took the Guru Rinpoche statue as one of the most necessary things when escaping the flood. In that way, faith and religious means served to structure experience and provide protection.

Biographies including former experiences obviously have a great impact on the appraisal of the actual experience and the assumed availability of resources. With the death of their only son, Tenzin and Dolkar had already lost everything even before the disaster struck, and they lacked family networks. This explains their inability to deal effectively with the situation. Gawa Dorje and his family had established their livelihood in exile without any help after coming to India. After the disaster they relied on their family networks and were ready to rebuild their house when offered initial support. Pema Wangchuk had experienced incidents much worse before and easily dealt with the situation, relying on faith and ritual means.

In this way, former and general circumstances and biographical incidents contribute to an individual vulnerability or resilience to stressful situations, and determine the ability and period of time required to overcome a stressful event. In the refugee community, many members have faced great difficulties and developed equally great abilities for dealing with difficult situations. On the other hand, many refugees have a hard general struggle and do not manage to establish a stable existence under these difficult circumstances. The poverty of many refugees, individual tragedies and daily hassles, along with the difficult political situation, limit available resources and create a particular vulnerability when exposed to an extreme situation.

In summary, appraisal and reactions by my Tibetan host family and me were not very different, while the other cases presented show great variation in appraisals and ways of coping among the Tibetan families. Surely the presented cases are too few to give a representative picture, but it became evident that transcultural stress and coping research has not only to pay attention to similarities and differences in appraisal and coping between socio-cultural groups, but also to the variance within a particular setting. Qualitative and highly contextual research can provide explanations for varying appraisals and coping strategies by tracing former experiences, support networks and coping resources available in the stressful situation. Furthermore, specific socio-cultural interpretations and relief techniques such as

faith-related strategies and ritual healing can be located and researched embedded in the combined perspective of qualitative stress, coping research and anthropology.

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Lifestyle Diseases in India – the Management of Type 2 Diabetes Mellitus (T2DM) in Kerala

Constanze Weigl

Introduction

The prevalence of diabetes is rapidly rising all over the globe. Over the past 30 years, the status of diabetes has changed from being considered a mild disorder of the elderly to one of the major causes of morbidity and mortality affecting the youth and middle-aged people. Diabetes is a widespread disease, even called a "public health emergency in slow motion" (IDF 2009). In higher-income countries, diabetes impinges disproportionately on the lower socioeconomic and minority groups, whereas in low- and middle-income countries such as India the complete society is increasingly affected by the disease. Consequently, diabetes is far from being a disease of the higher income countries or the better-off socioeconomic strata of society (IDF 2009). Today, India has the largest number of people with diabetes in the world. The World Health Organization (WHO) reports show that 32 million people in India had diabetes in the year 2000 (Mohan et al. 2007: 217f.). In 2006, the number of people with diabetes in India was estimated to be around 40.9 million and is expected to rise by the year 2025 to 69.9 million (Sicree et al. 2006).

The aim of this article is to describe Indians' practices and therapeutic measures to manage the chronic illness diabetes from an anthropological perspective. Emphasis is given to the patient's perspective. Since successful management of diabetes requires the understanding of lifestyle, attitudes and practices of patients, their perspective on diabetes needs to be taken into consideration. Particular attention will therefore be paid to the ways patients practice diabetes control such as medication and diet. As diabetes therapy is managed by the patient and experienced in everyday life, it is a fascinating research object for medical anthropologists. All data is based on medical anthropological and biomedical articles.

Diabetes is a chronic and largely invisible illness yet severely life-threatening and requiring daily management (WHO 1999). It is a group of diseases characterized by high levels of glucose (blood sugar) and can be described as a metabolic illness as it affects the metabolism. Diabetes has been recognized for millennia (Schadewaldt 1989). Referring to Indian medical knowledge, early records of "honey urine" (Sanskrit *madhu meha*) have been mentioned in the ancient Indian textbooks of Sushruta, Caraka and Vagbhatta (probably written between 300 B.C. and 600 A.D.) (Müller 1989: 182). These ancient Indian medical texts mentioned diabetic symptoms quite comprehensively, and already contained accounts of diabetic coma (Schadewaldt 1989: 52).

As diabetes is a group of disorders, different forms of diabetes mellitus are classified (WHO 1999). In the following explanations I will focus on the basic forms of diabetes only:

type 1 and type 2. Type 1 diabetes is an auto-immune disorder that typically develops at an early age (childhood or teenage years) and requires insulin therapy (but also strict lifestyle management) for survival. This type refers to the situation in which diabetes is due to the destruction of the cells that produce insulin; in other words people with type 1 diabetes do not produce enough insulin. The disease can affect people of any age, but usually occurs in children or young adults (IDF 2009). Type 2 diabetes mellitus refers to the situation in which the pancreas still produces insulin but the body cannot use it effectively. Most people with type 2 diabetes are insulin resistant, which means that the cells where insulin acts, such as those of the muscle and liver, respond poorly to insulin. Diabetes develops when the pancreas is no longer able to produce enough insulin to overcome the insulin resistance. Insulin resistance is particularly associated with physical inactivity and obesity. The diagnosis of type 2 diabetes usually occurs after the age of 40. It could also occur earlier and there are increasing reports of children developing type 2 diabetes (IDF 2009).

Although there is a worldwide increase in the prevalence of type 1 diabetes, type 2 diabetes is nowadays the most common form of diabetes and accounts for more than 90 per cent of all diabetes cases depending on the population (Mohan et al. 2007: 217f.). The main reason for the increased prevalence of type 2 diabetes mellitus is related to life style changes including changes in diet patterns, decreased physical activity due to improved transportation and possibly, increased levels of stress. Weight gain contributes further to the spreading of the chronic disease. Besides environmental risk factors, there are also genetic factors in diabetic risk, which are responsible for the high prevalence of T2DM. The central aim of diabetes therapy is to keep blood glucose levels down to a level that minimizes the risk of diabetes complications. The basic tools to manage T2DM are a healthy diet combined with regular physical exercise and blood glucose testing, although those with the disease also require oral medication and occasionally, insulin (Chacko 2003: 1088).

Some population groups are more vulnerable to diabetes than others: for example urban populations are at much higher risk of diabetes than rural population groups (WHO 1999). In India, changes in lifestyle as consequence of increasing urbanization are responsible for the high prevalence of T2DM (Ramachandran 2004). The first national study (1972-1975) conducted by the Indian Council of Medical Research showed that the prevalence of T2DM was higher in the urban than in the rural population in India (Ahuja 1979). The Chennai study of 1988 reported a prevalence of 8.2 % in the urban and 2.4 % in the rural areas of Tamil Nadu, South India (Ramachandran et al. 1997: 232-7). Further studies confirmed that there are disparities in the prevalence of T2DM in urban and rural populations in India (see for example Ramachandran et al. 2008; Ebrahim et al. 2010), despite evidence to suggest that the prevalence of T2DM is increasing in rural areas as well (Kapur 2007: 473).

Several studies showed a rising trend in the prevalence of type 2 diabetes in particular in South India (Beegom et al. 1995; Ramachandran et al. 2001; Kutty et al. 1999). For example, the National Urban Diabetes Survey (NUDS), a population-based study conducted in 2001 in six urban centers across India examining 11.216 persons aged 20 years and above and representing all socio-economic strata, revealed that the prevalence of T2DM in the urban centers of South India is higher than in North India. The prevalence of type 2 diabetes was 13.5 % in Chennai and 12.4 % in Bangalore; compared to 11.7% in Kolkatta, 11.6% in New Delhi and 9.3 % in Mumbai (Ramachandran et al. 2001). The Amrita Diabetes and Endocrine Population Survey (ADEPS), a community-based survey done in urban areas of Ernakulam district in Kerala has revealed a very high diabetes prevalence of 19.5% (Menon et al. 2006).

Research Topic and Methodology

Diabetes ethnographies are scarce (Ferzacca 2000) and social science perspectives on lifestyle diseases such as T2DM among the Indian population have been thus far rather limited. Only in Kerala (South India), where the prevalence of T2DM is higher than in North India (see for example Kutty et al. 1999; Ramachandran et al. 2001), three studies were done: Wilson (2010b) who provides an overview on the massive

expansion of the private health care system in Kerala and concentrates on the prevalence and treatment of lifestyle diseases; Wilson (2010a), who has conducted research on food consumption and cardiovascular diseases; Chacko (2003), who examines the use of Ayurveda in managing diabetes in South India and writes on complementary treatment strategies of T2DM in urban Kerala. These articles are the anthropological base of my paper.
In order to gain an understanding of the biological facts as well as the epidemiology of T2DM in India, I did a literature review including research on biomedicine, health education and epidemiology. The most of the various researches has been conducted by epidemiologists and focuses on large-scale studies combining data on bodily measurements with questionnaires of individual lifestyle behaviors.

My aim is to explore South Indians' health-seeking behavior and their attempts to control the chronic disease. I will therefore focus on the components of diabetes therapy such as medication and diet, and will examine how patients adapt those to their everyday lives. In addition, structural factors that hinder a successful management of T2DM in India will be analyzed, e.g. patients' socio-economic constraints, their limited access to medical care and an insufficient health care system.

Structural Problems of Diabetes Management – the Indian Scenario

There is still no cure for diabetes and many people underestimate its severity. Diabetes can for example lead to stroke, kidney failure, blindness, limb amputation and early death (IDF 2009). Such severe health problems can be avoided or at least postponed with good diabetes management. For a successful treatment of the disease, diabetes self-management is important. But diabetes self-management becomes an impossible task without adequate knowledge of how to do it. Therefore, diabetes education is important as it provides the context where patients can learn how to self-mange their diabetes (Guell 2009: 27).

However, many low- and middle-income countries such as India are unable to provide their population an effective health care system, one that adequately addresses chronic diseases such as diabetes. The money that is spent on healthcare primarily goes to prevent communicable diseases such as TB and malaria, and chronic disease prevention and management is not a top priority (Huizinga, Rothman 2006: 483). Consequently, the public health sector is also incapable of offering diabetes education or informing patients of the associated long-term risks and complications of diabetes. One Indian colleague, whose father suffers from diabetes, told me: "Diabetes is regarded as a slow killer in India. Most of the people here are not even aware of the fact that they have diabetes until very late. They are also unaware of the life threatening consequences of the disease and even more, most remain unaware that it is mostly lifestyle related."

Given the limited resources and infrastructure in the public health sector for chronic diseases such as diabetes, the quality of diabetes care suffers. The private sector may offer better care for chronic diseases, but people have to pay out of their own pocket as there are limited or no reimbursements (Kapur 2007: 474). In India, there is practically no financial protection for most people against medical expenditures. A recent study by the Harvard School of Public Health found out that in India more than three-quarters of health spending is being paid privately. Out-of-pocket health bills are pushing 39 million Indians each year into poverty (Balarajan et al. 2011). Suffering from a chronic disease such as diabetes in India means that a patient is forced, year after year, to bear the costs of his medical treatment and management completely alone, thereby risking a financial emergency.

However, not everybody is able to spend money on health expenditures or to use the private health sector for chronic health problems such as diabetes. Poverty has an impact especially on the complications of diabetes. Poor people suffer more on the complications as they are often not able to pay the doctor. In consequence, they receive the diagnosis of diabetes in majority of cases much too late – when they are already suffering from serious complications such as stroke, blindness or kidney failure. After the diagnosis, they may be financially unable to control the disease, meaning for example that they cannot afford to eat vegetables and fruits on a daily basis in order

to maintain a healthy diet, which is a core element in diabetes management. Poverty is a large problem in the prevention of the complications of diabetes (Kapur 2007: 474-475).

Diabetes Management in Kerala

Health-Seeking Behavior and Medication

According to the National Family Health Survey NFHS (2005-2006), Kerala has one of the highest literature rates (94.6%) and life expectancy rates (73 years) among all Indian states. Based on the wealth index (comprised of housing characteristics and availability of electricity), Kerala is the wealthiest state of India. Infant mortality rate (15 per 1,000 live births) is the lowest of any state in the country. This statistical information puts Kerala at the top of the list among all Indian states regarding its population's health status and socio-economic condition.

However, Kerala is also experiencing the health effects of changed lifestyles that accompany affluence and urbanization. According to the NFHS (2005-2006), 30 per cent of women and 24 per cent of men in Kerala are obese. Diabetes, but also obesity, high blood pressure and cholesterol have become common for men and women, who are in the late twenties or early thirties (Wilson 2010a: 262). In comparison to other Indian states, Kerala has a particularly high rate for Type 2 Diabetes Mellitus (16.3%) (Kutty et al. 1999).

As diabetes has become one of the most significant health problems in Kerala, it has led to high levels of dependency on doctors. In medical consultations doctors often raise concerns about patients' poorly controlled diabetes. Its conditions and complications are often barely understood by patients as chronic conditions, which generally become of concern when patients are already experiencing symptoms or complications (Wilson 2010b: 267). This is partly caused by the form of medical consultations, which in India are characterized by a hierarchical doctor-patient relationship. During medical consultations it is unusual for doctors to explain or educate patients regarding their health status; patients generally expect doctors to be able to care for their health. So without the necessary knowledge on how to do diabetes self-management, it becomes an impossible task. And when diabetes education is not provided, patients face problems controlling the disease.

However the situation is slowly changing. Nowadays, medical consultations are becoming more dialogic, especially in private hospitals. Doctors, for example, do no longer talk down to patients from lower- and middle-class backgrounds, and they explain more about chronic diseases such as Type II diabetes. They provide the context where patients can learn how to self-mange their diabetes and where their concerns are addressed – according to the tenet of biomedical diabetes care to empower patients and to encourage them to self management. Accordingly, today the awareness of diabetes is much higher in Kerala than a decade ago, given the transformed form of medical consultations. In addition, the rapid expansion of private hospitals and diagnostic laboratories over the last 20 years has also increased awareness and the diagnosis of risk factors amongst the general public. More people are diagnosed with diabetes compared to other parts of India. There even exist private specialty clinics in Kerala concentrating solely on the treatment of diabetes (Wilson 2010a: 263). Kerala is further characterized by a high density of public health care facilities such as public hospitals, clinics and dispensaries, which offer diabetes treatment. The Indian Institute of Diabetes has been established in the vicinity of the capital Trivandrum.

Nowadays patients from all classes regard it as a norm to seek advice from a doctor for type 2 diabetes (Wilson 2010b: 56). The treatment of diabetes forms today a significant part of health care in Kerala's biomedical sector. This signals a new era in medicine compared to older generations of physicians, who spent their working lives treating diseases of under-nutrition and poverty (ibid.: 139f.).

Patients not only seek advice from biomedical institutions, but also use Ayurvedic medicine to manage T2DM. Many of the patients who opted for Ayurvedic medicines did so because they believed that Ayurveda has fewer disadvantages and side effects than conventional biomedicine. While treatment by well-known Ayurvedic physicians is reported to have drastically lowered blood glucose levels in the patients, the

unaffordable cost did not allow for long-term use (Chacko 2003: 1095). There exist many Ayurvedic health care institutions in Kerala as the state has continued to expand facilities including medical colleges in Ayurveda (108 hospitals and 587 dispensaries) (Wilson 2010b: 120). In 1999, government-administered as well as privately owned pharmaceutical companies produced and sold more than 400 Ayurvedic drugs (Chacko 2003: 1090). Ayurveda has also expanded in the private sector in the last years. Luxurious centers have been established in exclusive hotels, resorts and smaller homestay facilities offering retreats and treatments of lifestyle diseases to affluent patients across the state (Wilson 2010b: 121).

Other medical approaches to manage diabetes include the use of locally available medical herbs, vegetables and plants (e.g. Neem, Bitter gourd, Indian gooseberry etc.). Non-biomedical drugs were used by patients most frequently and exclusively in the early stages of diabetes, while in the later stages, they were used to supplement biomedicine. Patients hoped to delay dependence on biomedical drugs through the use of more "natural" medicines such as herbs. In addition, most patients used herbal remedies as supplement to biomedical treatments. "Medicines" were prepared at home from the more powerful herbs by boiling the leaves, seeds or the entire plant to form a decoction; or an infusion was made by grinding the leaf and mixing it with milk or water. Extractions and mixtures were ingested on an empty stomach in the morning, a practice that was believed to maximize their effectiveness (Chacko 2003: 1091f.).

The practice of yoga has been also mentioned as a way to manage diabetes. However, varying success has been observed in its treatment and only a few studies have reported reductions in blood sugar. There exist hardly any studies on yoga and T2DM and available information in the literature is very meager (Kumar 1983: 251ff.).

Diet

Besides medication, diabetes management places heavy emphasis on control of food consumption and a balanced diet, as the rise of diabetes can be in particular attributed to the increase of obesity. People living with diabetes must learn the complex and varied workings of food on their metabolism. Consequently, food becomes a highly complex issue for diabetics once they learn more about nutrition (Guell 2009: 22). However, the extent to which individuals are able to adhere to such dietary advice varies. In the following I will explore to which extent patients in Kerala (can) control food habits by examining the local socio-cultural context of food and the sociality of food practices. This will be contrasted with a description of patients' awareness on the complications of diabetes and how they negotiate their diets as well as implement health recommendations into their diets.

Especially in the Indian society food intake plays an important role as demonstrated below. A good appetite indicates emotional and physical wellbeing whereas not eating food enhances perceptions of sickness and bodily weakness (Wilson 2010a: 270). If people's appetite is less during illness, relatives often force people to eat even when they don't want to. Mothers insist children to eat normal amounts, when they are sick. When feeling acute symptoms from diabetes, elderly people often complain of a poor appetite, however, they bring themselves to eat despite their discomfort in order to maintain emotional wellbeing. (Wilson 2010a: 264).

Besides viewing food as a source of health and well-being, it is seen as central to nurture good social relationships. Food is the social glue and vehicle between friends, neighbors, a "community" or group (Guell 2009: 149). As Nichter (2001) notes, food continually renews social bonds, essential for collective mental and physical health, strength and vitality, producing a visceral sense of embodied satisfaction.

Food is also seen as central to social events as they are marked with certain foods and food practices. Feasts, festivals, and social occasions are very common in India. They are socio-culturally important, and centre on eating sweet and rich food (Chowdhury et al. 2000: 213). In her article on T2DM in Kerala, Wilson describes that in the last years not only the number of social events has increased (as for example wedding functions continue to grow in size and decadence), but also the amount of food being served during these special occasions. For

example, in a typical household for Eid celebrations (Muslim festival that ends the fast of Ramadan) 20 years ago, one chicken was shared between eight people, whereas now three chicken are purchased (Wilson 2010a: 267). However, this tendency is marked by concerns, as the incidence of heart attacks and diabetes increases. Mr. Bhakar, a middle-aged trader, explains: "There are so many huge functions for weddings – tinum, tinum – people are eating. Eating, eating is always there. Eating without exercise and money worries and tension to get daughter's married – so much stress is there" (ibid.: 269).

In recent years, food habits have changed generally regarding the amount of food as the volume of rice, eggs, meat and fish has increased. The consumption of fried food and meat has increased primarily from eating outside the home. Across the capital of Kerala (Trivandrum), new bakery stores, fast food outlets and juice bars have mushroomed, which are popular among families. Traditional tea stalls and small local hotels are busy day and night serving deep fried snacks, tea, snacks and curries. Nalini's (a social worker in her early 40s) account illustrates that people are eating more nowadays as eating three meals per day and at least two snacks is common, leaving the body little time to digest food: "For tea there will be a snack, so people buy bakery items now. They buy food prepared with ghee (…). We are no longer systematic in food – morning we used to take rice and all. But now people are eating food between periods. So if we eat before lunch at one o'clock there is no hunger, then we'll eat food again at 2 o'clock, then straight afterward tea at five then at night supper, so we are not giving chance for the food to digest, so sugar increases. So there is starch in the rise and we need to exercise" (Wilson 2010a: 267).

However, food habits have changed not only among the higher and middle class, but also among the poorer households in Kerala. This is caused by the industrialization of meat and dairy production in India and reduced relative prices for those products (Shetty 2002: 175). Previous "luxury" items such as meat, eggs, sugar and oil are now reconstituted as affordable food for daily consumption among many low-income households. As fruit and vegetables remain relatively expensive, they are consumed less often. As income of the low income-households increases, spending is prioritized on food, reflecting the transition from a diet limited by socio-economic circumstances to a more plentiful consumption. Wilson describes further that among poor households the diagnosis of diabetes was initially perceived as a sign of affluence and associated with upper castes; indicating one could afford now a diet rich in fats and sugars (Wilson 2010a: 262). As poorer households experience more and more the complications of T2DM, their attitude towards the chronic disease is changing.

In addition, the following statements illustrate that today many people are aware of the ill-effects of eating too many oily meals and too much meat, and some have changed their diet accordingly. Padmini, a retired physical education teacher in her early 60s with a cardiovascular disease, attributes ill-health to eating habits: "People eat so much rice and less vegetable curries (…). Disease is high because people like fast food and all meat is cooked in oil. People are not doing anything strenuous. The young generation doesn't like vegetables. [Her friend chips in 'they all like chicken']" (ibid: 266).

Another female informant mentions in her statement vegetables and fruits, which are recommended for a healthy diet to control diabetes: "(…) When we starve for two days it lessens the work of our organs, they get rest – heart, kidney, blood vessels, intestines – we are giving them an opportunity to get pure. We are eating more fish, meat and oil. We should eat more vegetables and fruits but we are not doing that. Brahmins have comparably less diseases – vegetarian only" (ibid: 266). Abid, a film producer in his thirties, who prefers to reduce and control food, explains: "I look after my health very well, exercise – not eating too much and controlling the amount of oil. I won't eat fatty food. Biriyani only once a week – I tell my wife and mother like that" (ibid: 269).

On the one hand many people in Kerala are aware of the negative impacts of excessive food consumption on long-term health and chronic illness and try to change their diet accordingly, on the other hand their concerns are often overridden by the sociality of food practices

and the meaning of food (as for example the association between appetite and health).

Conclusion

As India is globally one of the countries with the highest prevalence rates of T2DM (IDF 2009), there is an urgent need to manage diabetes and to prevent and treat its complications. In this article I have examined how South Indian patients try to deal with the public (health care system) and the private (home) level to manage diabetes and its complications. As the prevalence of T2DM is much higher in the urban than in the rural population, with Southern India having the sharpest increase, I focused on the south-western state of Kerala. In Kerala, nowadays patients from all classes are aware on diabetes and regard it as a norm to seek advice from a doctor for T2DM. To manage diabetes, patients did not only rely on biomedicine, but frequently used Ayurvedic medicine, herbal remedies and yoga. Another way to keep the blood glucose level in control is through a well-balanced diet. Research has shown that there is on the one hand a growing awareness of the association between eating large amounts of fatty foods and meat and the development of diabetes; on the other hand dietary advice is neglected due to common food practices and the association between appetite and health.

As diabetes ethnographies are scarce and social science perspectives on lifestyle diseases such as T2DM in India have been thus far rather limited, it becomes clear that much more anthropological research is necessary to fill the gaps on how patients in India engage in diabetes care and their practices of diabetes control.

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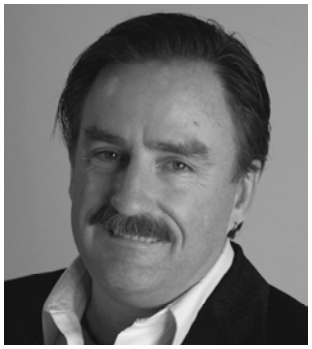

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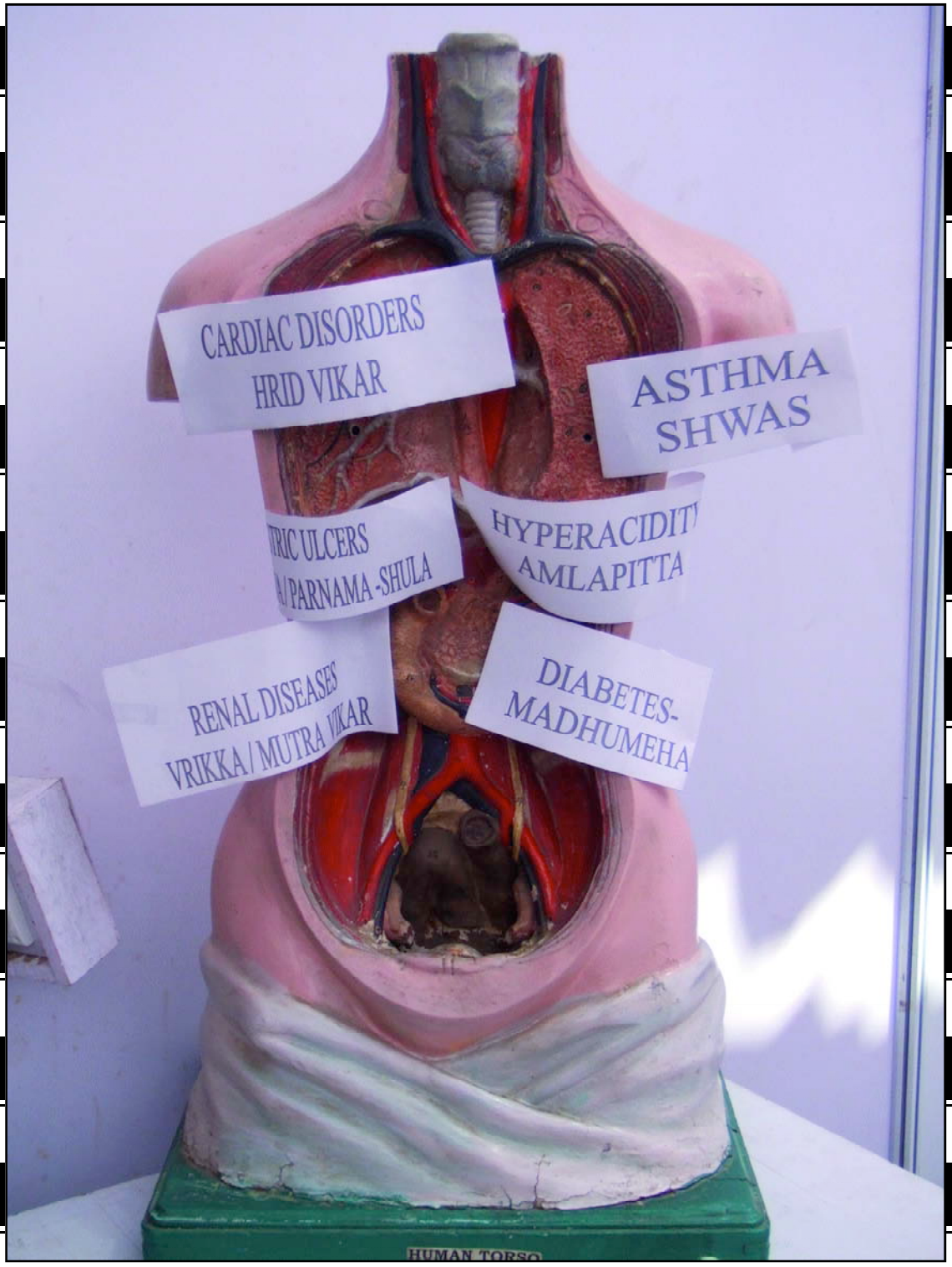
Photograph last page

A biomedical model of a human torso with labels giving biomedical and Āyurvedic disease names. (photograph: Chopra at the National Institute of Ayurveda, Jaipur; see article this issue)



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