

The Logic of Biomedicine in Rural Punjab

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A Thesis

In

The Department

Of

Sociology and Anthropology

Presented in Partial Fulfilment of the Requirements
for the Degree of Master of Arts (Social and Cultural Anthropology) at
Concordia University
Montreal, Quebec, Canada

August 2003

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ABSTRACT

The Logic of Biomedicine in Rural Punjab

Mandip Basi

This thesis explores the processes by which biomedicine and pharmaceuticals have entered the standard repertoire of treatment options in rural Punjab, India. The author conducted participant-observation and interviews with various medical practitioners and patients in Punjab for three months in Autumn 2001. It was found while biomedicine is a global phenomenon; many of its users approach it using their reality as agriculturalists as a starting point. More specifically, the Punjabis integrate their use of biomedical pharmaceuticals with their understanding of Green Revolution agrarian practices, constitution of the body, and diet. This thesis argues that their use of biomedicine allows them to maintain functional health and accommodate the compromising working and living conditions brought about from reliance upon chemically-based substances such as pesticides and cleansers which are customary in the everyday lives of rural Punjabis.

Acknowledgements

There are many people who have helped this thesis along its route. This research would not have been anything without the help of close and extended family both in Montreal and in Punjab who helped set me in the right direction and graciously offered me way into a world, that I as novice anthropologist, felt compelled to know about. I would like to acknowledge the village medical practitioners I interviewed for being so accommodating with their time. I would also like to thank some key informants in Punjab who made the effort to relate and share their experiences with me.

From Concordia University, I would like to thank my supervisor David Howes for his ideas and support. My fieldtrip was funded by the Culture and Consumption team and also from the Rector's Cabinet. I would like to acknowledge financial support from the Centre for Developing Area Studies at McGill University, which provided me with a research internship for the thesis writing stage. Last, but not least, I would like to thank my professors and peers in the Department for Sociology and Anthropology at Concordia for their empathy and encouragement over the past few years.

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CHAPTER 1: CONTEXTUALISING MY RESEARCH AND METHODOLOGY

Introduction: Why pursue the study of biomedicine?

This thesis is product of my research on biomedicine, consumption, and rural Punjab. I analyse the use of pharmaceuticals commonly used by Punjabis, namely pills and injections, and examine how the organisation of health care affects patients' choice of treatment. A number of historical, economic and environmental circumstances have resulted in Western medicine, or biomedicine, becoming the most widely used medical system in rural Punjab. My field site and data acquisition were influenced by my ethnic background (Punjabi), which gave me access to the region as I had the required language skills and family connections. I divided my time between two villages, one with a population of 5 000 and the other with a population of 350 and interviewed medical practitioners, pharmacists and locals who resided within and near these villages.

My study of the reception of the pharmaceuticals stems from an interest in the processes of cultural change, globalisation, and consumption as they are played out in India. I am concerned with how pharmaceuticals, a by-product of biomedicine and capitalism, are pushed by transnational corporations and received by local consumers. These drugs are necessary to Punjabis but are also a relatively new means to obtaining health.

The production and promotion of pharmaceuticals has received a great deal of attention by various types of researchers. However they have tended to focus on the dealings of marketers and distributors and neglected inquiry into the experience of those on the receiving end, that is, consumers. Yet anthropological inquiry into this domain

has yielded intriguing results. We learn that the Abron of the Ivory Coast save the packaging of medicines to familiarise themselves with their names and to self-medicate (Alland 1970 in Van der Geest 1989: p.348) while the Kanarese of South India attribute certain qualities to medicines according to their colour (Nichter 1996: p.223). The Punjabis I worked with were little concerned with such qualities of medicines and, instead, put their faith in the word of the medical practitioner. New phenomena are always invested with particular meanings emanating from local perspectives, which have implications for the use and consumption of a product. A study of the relationship between *local* and *global*, *traditional* and *modern* brings out the complexities and contradictions of being situated in an international medical marketplace. An analysis of pharmaceuticals from the perspective of their users reveals the tensions between modernity and well-being, and provides a valuable contribution to the study of globalisation, economy, and health.

I conducted library research on the localisation of transnational pharmaceuticals and biomedicine in colonial India, traditional medical systems in India, and health development in Punjab. I spent three months in rural Punjab (September - December 2001) and obtained data on quotidian ailments such as colds, fevers and bodily pains; indigenous treatment; the popularity of injections; agriculture; changing social and labour conditions; and health. All of these had an influence upon the use of pharmaceuticals.

I also articulate the influence of the development paradigm (including colonialism, international development, 'modernisation' and globalisation) on the establishment of biomedicine. The project of health development, since the beginning, has always been undertaken with negotiation between the proponents (i.e. British) and

recipients (i.e. Indians). Certainly, biomedicine has been invested with an authority that has facilitated its spread the world over; yet it has also been reshaped in order to establish itself in various locales.

With my research I attempt to integrate micro and macro perspectives to provide a more comprehensive study to the phenomena of biomedicine in rural India. These connections are important in illuminating the link between the “patient’s suffering [and] the global political economy” (Baer et al.1997: p.19).

The Framework of Pharmaceuticals and Anthropology

In this section, I discuss the place of pharmaceuticals in the international economy and the emergence of medical anthropology.

Worldwide Reception of Pharmaceuticals

The pharmaceutical industry has attracted a significant amount of attention the past few years as it encounters increased criticism from the public on issues such as the overpricing of AIDS drugs in Africa and aggressive marketing of products like Paxil – once promoted as an anti-depressant, but now broadened to account for generalised anxiety disorder¹.

Symptoms of common ailments are polyvalent sensations that may be interpreted as the sufferer sees fit; this open-ended aspect of illness is often capitalised upon by the marketer (Medawar 1979: p.93). To illustrate the manner in which marketers appeal to a

¹B. Mintzes, April 9/2003, Breast Cancer Action Montreal conference, Concordia University.

non-Western audience, I will use an advertisement for a migraine drug called Migril as an example; this chart outlines its recommended maximum dosage:

<u>Maximum weekly recommended dose</u>	<u>Where</u>
10 mg	U.S.A.
12 mg	U.K.
24 mg	Africa, Asia

(Medawar 1979: p.117)

Melrose (1982), who wrote *Bitter Pills: Medicines and the Third World Poor* and states that transnational corporations (TNCs) probably pushed for a high consumption of drugs because they felt uncertain footing in a Third World market and therefore tried to ensure themselves of an almost immediate profit through by promoting ‘over-consumption’ (p.27). My literature review (and field research revealed that non-Western consumers have and were more likely to expect and be attracted to pharmaceuticals that offered immediate and powerful effects. These two factors make for high consumption of drugs in the Third World.

Considering that 70% of world drug production is based on the illnesses suffered by the Westerners (p.27)², it is not surprising that Migril was advertised in the international marketplace. Pharmaceutical TNCs may also market their product by appealing to the supposed idiosyncrasy of a person’s symptoms. Medawar (1979) observes that “needless product differential” has become a favoured marketing strategy with special aspirin-based preparations being used for menstrual cramps, while another similar one is used for “depressing headaches” and yet another one for “nagging headaches” – one ad goes to state “*Your special headache needs Powerin*” (1978: p. 42-

² Chetley (1990) states that less than 4% of drug research is oriented to diseases specific to the Third World (p.45).

43). Most pharmaceuticals are under patent protection laws³ that safeguards their formula for a set period, usually about 16-20 years. Within this time frame, it takes several years before a drug may be judged safe enough for public consumption leaving TNCs with little time to recover research expenses. As a result, most TNCs, rather than taking up innovative drug research, choose to make only minor adjustments, such as changing one molecule or combining one substance with another to their product so that more time and money can be divested towards marketing rather than research. This creates a scenario in which there is an overflow of drugs on the market, varying only slightly from each other (Chetley 1990: p.47; Tucker 1996: p.116-117) and creates excessive product differential.

In the case of pharmaceutical consumption, it has not been simply a matter of the TNCs 'brainwashing' target markets to arbitrarily consume pharmaceuticals. Such drugs may hold appeal because they occupy an already-known place in a culture's health model, Nichter (1989) maintains that, for Indians, the idea of taking medications to achieve health is not a novel phenomena, it is the *quantity* available today that is new (p.245).

While there is research that problematises the use of pharmaceuticals (Greenhalgh 1987; Medawar 1979; Melrose 1982; Silverman et al. 1982), its investigators frequently tend to focus on large-scale issues such as advertising in the media, government policies and pricing while the experience of those on the receiving end of these drugs is not yet fully explored. A consideration of the consumer's experience is invaluable in illustrating the implications that result from their understanding of a good. For instance, after

³ As a member of the World Trade Organization, India is expected to implement patent drug protection by 2005.

learning of how Punjabis categorised “medicines” and their expectations of them, I was better able to understand why they resorted to frequent visits to the doctor and requested many drugs (Chapter 4). Having the locals’ perspective is helpful if the anthropologist wishes to take up community development schemes to promote affordable and effective healthcare. For the most part, activists for such projects come from a medical background and may be involved in community health care, non-governmental organizations or academic research units; the cultural context of medical treatment is an important element in health care and, anthropologists with their fieldwork methodology can effectively articulate the significance of pharmaceuticals to its users.

The Origins of Medical Anthropology

The beginnings of medical anthropology first emerged from the study of subject matters such as belief systems (Van der Geest 1988: p.329) or “ ‘primitive’ religion and magic” which portrayed healers “routinely engaging in ceremonies and rituals to restore patients to states of spiritual, social, and psychological harmony” (Sussman 1988: p.199). Non-ritualistic treatment of ailments did not attract as much attention. Anthropologists have traditionally been interested in what makes a culture ‘different’, and for medical anthropologists this translated into an interest on ritualistic indigenous medical systems (p.199). These interests were heavily emphasised during the decolonisation period with high-profile anthropologists lending support towards “native liberation movements demanding self-determination” such as traditional medicine.

In order to situate the development of medical anthropology we must consider the modernist development paradigm, which provided the rationale for the establishment of biomedicine in the colonial era and allowed anthropologists to take up a specialised study of medicine in non-Western cultures within the framework of international development (Joralemon 1999: p.10-11), in the period after World War II. At that point, the United States, encouraged by the success of the Marshall Plan that helped rebuild war-torn Europe, undertook various projects ostensibly designed to eradicate poverty and disease in developing nations. Anthropologists, specialists in non-Western cultures, were called in as cultural brokers for the development agencies (p.11). As we can see, a close relationship existed between applied and medical anthropology.

While anthropologists may be accused of engaging in colonialisation given their involvement in development schemes, they have also put forth much criticism against the practice of international development. Quite often, they would return from field assignments with calls for more in-depth research rather than the hoped-for convenient quick fix solution; their input was seldom given serious consideration due to this type of results-based management (p.86). Dissonance between anthropologists and development organizations reached a climax in the 1960s when American policies towards the Vietnam war resulted in a great exodus of anthropologists from the field of development. Joralemon (1996) reminds us that this, however, was facilitated by the sudden number of positions available for anthropologists in the university setting.

The scenario changed in the 1970s after substantial cuts to education and the adoption of a more sympathetic agenda by development organisations which led anthropologists to take up applied anthropology. Groups such as the World Health

Organization (WHO) pursued policies that focused on community participation, public health, and sustainable development. Anthropologists also took up work with private non-profit organizations, such as Save the Children and CARE, which adopted similar mandates (Joralemon 1999: p.87-88). Today, applied anthropologists continue to work in a variety of development organizations in domestic and international contexts. In spite of this, they continue to occupy relatively marginal positions as consultants or mediators. Some argue that this undermines the potentially valuable contributions which could be made by anthropologists.

Scheper-Hughes (1990) has argued that clinically applied medical anthropology has not yet made any substantial “epistemic breaks with scientific medicine analogous to social anthropology’s eventual breaks with the colonial world and its hegemony”. It has rarely called into question the “perverse economic and power relations that inform and distort every medical encounter in post-industrialized and especially capitalist societies” (p.191-192). Van der Geest (1987) similarly argues that anthropologists have had little opportunity to undertake research on biomedicine because their questions about the construction and influence of medical systems have been stigmatised and trivialised as awkward annoyances that delay “real action” (p.275). This has led to them holding less influential and more marginal positions with large-scale international development organisations.

The Reception of Pharmaceuticals

India's involvement with biomedicine has spanned the last four centuries⁴ and it has become the dominant medical recourse for the inhabitants of Punjab. For Punjabis, as we will see, healthcare equals medicine which equals pharmaceuticals. This has been encouraged in part, by neo-liberal economic policies in the mid-1980s which opened the market to private enterprises. While in 1980, about 3 500 pharmaceutical companies existed in India, the figure jumped to 9 000 in 1986 and 16 000 in 1988 (Nichter 1996: p.268). For comparative purposes, while in 1986, the UK had 15 000 medical formulations, USA had 45 000 and India had 60 000, which has jumped to 80 000 in 1996. As the Indian government withdraws from the public sector, "the premise that one can buy back health and well being with rising wages and greater access to medicines is popularized" (Nichter 1996: p.266). To contextualise the reception of pharmaceuticals in India, I will provide some theoretical paradigms which are concerned with globalisation, consumption and biomedicine.

Analysing the Reception of Goods

Nichter (1989) comments that pharmaceuticals no longer have to be pushed upon the Indian consumer, s/he demands them because they are

part of a much larger phenomenon represented by other fixes and fantasy escapes such as alcohol, movies, romance magazines and television...The need for magic in an uncertain world is fodder for pharmaceutical companies who sell medicines

⁴ See Arnold 1993 for a comprehensive study of biomedicine in colonial India.

to both consumers off the street (through chemist shops) and to practitioners who require some amount of mystification to survive in a competitive medical marketplace (p.238).

The study of pharmaceuticals can allow for a generalisation about the reception of foreign goods, whose presence has become more pronounced in light of worldwide reforms bringing forth economic liberalisation. By and large, the reception of goods amongst Third World nations may be understood in two main ways: homogenisation and creolisation. The homogenisation paradigm argues that mass-produced Western goods encroach upon local realities rendering them uniform regardless of context while the creolisation paradigm, taken up by some pharmaceutical anthropologists (Afdhal & Welsch 1988; Bledsoe & Goubaud 1988; Burghart 1988; MacCormack & Draper 1988; Ferguson 1988; Nichter 1996; Sussman 1988; Whyte 1988; Van der Geest 1988; Van der Geest, Whyte & Hardon 1996), claims that consumers are creative agents with the potential to interpret and utilise goods differently from what the creators intended (Howes 1996: p.3).

The creolization paradigm sensitizes one to all the ruptures and deflections, rejections and subversions that can take place at each point in the economic cycle of production-exchange-consumption....(p.6).

In the field, I found that the two models overlapped and intertwined with one another. For instance, while resorting to ‘a pill for every ill’ type of behavior may reflect the medicalisation of illness, a preference for pills of a certain taste, which invoke indigenous treatment suggests that creolisation is taking place. While studying the reception of goods is an invaluable method with which to approach the patient’s

perspective on medicine and study the situation “on the ground”, it still requires the investigator to consider the politics of mass consumption, the ethics of health development, and the power relations which have invested biomedicine with such authority. Indeed, as much as people are making choices and interpreting introduced goods, they are still making choice within constraint.

Pharmaceuticals, due to their small size and necessity, are highly-charged commodities which have been able to make their presence felt worldwide as people seek health (Van der Geest & Whyte 1988: p. 350). They also allow for the study of the encounter between global and the local:

Pharmaceuticals constitute a perfect opportunity for the study of relation between symbols and political economy. On one hand, they are a part of the international flow of capital and commerce. On the other, they are symbols of hope and healing and of the promise of advanced technology. They are more desperately sought than Coca-Cola and videos. They allow individuals and peripheral communities to exercise more autonomy in health care but also create dependence on distant markets (Van der Geest et al. 1996: p.170).

An analysis of a people’s encounter with medications provides a suitable basis from which to problematise the local-global dichotomy.

Biomedicine is one of the best examples of globalization. It is truly cosmopolitan – not Western - medicine. Biomedical technology in diverse social settings provides a particularly appropriate empirical base for addressing newer theoretical issues concerning cultural globalization (p.156).

To be sure, this system, although pervasive, has never managed to completely monopolise a given local setting. Indeed, Arnold (1993) dedicates his monograph to the intricate negotiations between the British and Indians that framed the acceptance of biomedicine in colonial South Asia.

Western medicine was forced to recognize that, if it were to have any tenure in India beyond the immediate constituency of the Europeans themselves, it had to be more than a mere carbon copy of medicine in Europe...Disease *was* different in India - though there were various preferences and fashions as to how that difference could be defined - and medicine and the attempts to control or suppress disease had to recognize that cultural and political fact (p.293).

Critical Medical Anthropology

Within medical anthropology, there is a great divide between the *microanalytic*, *symbolic*, *phenomenological* and the *macroanalytic*, *historical*, *Marxist* perspective (Morgan 1987; Scheper-Hughes 1990; Tucker 1997). Pursuing a critical analysis of health and healing is invaluable as it leads the inquiry in the direction of exploring the “relations among biology, knowledge production, and cultural context” (Lindenbaum and Lock 1993: xiv). Tucker (1997) argues that while anthropology excels in creating works that are highly descriptive, it frequently lacks the macro-level analysis necessary to understand global issues and forces such as pharmaceutical transnationals or infant formula distributors. He suggests that ethnographical approach be applied to the study of such global institutions through fieldwork that not only focuses on doctor-patient relationships, but also expands its perspective to consider the doctor’s interaction with pharmaceutical sales representatives. The culture of corporations needs to be put under the anthropological gaze. Rather than limiting the field of inquiry to a certain ethnographic, research should be broadened to include global processes “which impinge upon the study site” (Tucker 1997: p.122-123). Tucker states, “it becomes essential to devise perspectives and methodologies which take into account both localized belief systems and meanings and also the social construction of larger systems at national and

international level. *We must not fall into the trap of equating the cultural with the local*” (p. 122-123, italics mine).

An examination of political economy is required to rethink the borders of the field site. Navarro (1976), in his *Medicine Under Capitalism* discusses Illich’s notion of *iatrogenesis*, “the extensive damage done by the industrialization of medicine” (p.108). of which there are three types: *clinical*, *social* and *structural*. *Clinical iatrogenesis* refers to

when pain, sickness, and death result from the provision of medical care; it is *social*, when health policies reinforce an industrial organization which generates dependency and ill health; and it is *structural*, when medically sponsored behaviour and delusions restrict the vital autonomy of people by undermining their competence in growing up, caring for each other and aging (qtd. from Illich in Navarro 1976:p.107)

Navarro’s main critique of Illich’s treatment of *iatrogenesis* has to do with how Illich confuses the *administrators* of the medicine as being the *controllers* (p.112-113). According to Navarro, Illich reduces political problems to managerial ones; instead, what is required is an analysis of the behavior of the socioeconomic system (as determined by the ruling class), not individuals who work within it (p.118). For Navarro, medical practice is part and parcel of the cultural context in which it is located. This is the point of view which forms the basis for critical medical anthropology.

Critical medical anthropology is a subfield which developed in the late 1970s with inspiration from Soheir Morsy’s piece entitled, “The Missing Link in Medical Anthropology: The Political Economy of Health” along with the work of Vicente Navarro (1976) and articles in the *International Journal of Health Services* which led to Baer writing up on this aforementioned literature. A few years later these proponents

became involved in various anthropological conferences and edited special issues of journals on critical medical anthropology (Baer, Singer & Susser 1978: p.26). Critical medical anthropology is concerned with issues such as:

- 1) Who has power over the agencies of biomedicine?
- 2) How and in what forms is this power delegated?
- 3) How is this power expressed in the social relations of the various groups and actors that comprise the health care system?
- 4) What are the principle contradictions of biomedicine and associated arena of struggle and resistance that affect the character and functioning of the medical system and people's experience of it? (p.27).

Critical medical anthropology works with the premise that the “development and expansion of a global economic system represents the most significant, transcending social process in the contemporary historic epoch” (p.27). While other social scientists (i.e. economists, political scientists) may also be sympathetic to such a viewpoint, they also have a tendency to follow a strictly macroanalytic approach and disregard the impact of local actors and explain all phenomena by referring to industrial capitalist relations (Scheper-Hughes 1990: p.189). Anthropologists, through their techniques of research, can use a macro and micro perspective to provide a new perspective by articulating the process of cultural change as experienced by locals in their daily lives (Tucker 1997: p. 123; Van der Geest & Whyte 1988). Studying the conditions that facilitate the consumption of pharmaceuticals allows for a comprehensive framework which acknowledges both local and global processes. For this, the proponents of pharmaceutical anthropology must consider the sociocultural dimension of pharmaceuticals (Van der Geest & Whyte 1988; Nichter 1996).

Pharmaceutical Anthropology

The concerns of pharmaceutical anthropology may be quite obvious - this field of study revolves around the examination of a substance that many have taken for granted: biomedical medications. Van der Geest (1988), the main representative of this field, writes, “until very recently the delusion that biomedicine was ‘beyond culture’ still hovered around its therapeutic substances” (p.330). This field is “concerned with co-existence of Western and indigenous medicines and ... how each affects the perception and use of the other”. Pharmaceutical anthropologists focus on two main subject matters: *transaction* which situates drugs in their political, social and economical context, and *meaning* to analyse how drugs are understood by those involved in transaction (p. 330). Van der Geest encourages research into pharmaceutical anthropology by tracing the “biography” of the drug through consideration of these five themes: production and marketing; prescription; distribution; use; and efficacy (p.331).

Production and marketing is the most heavily researched aspect of pharmaceuticals and centres around issues such as transnational pharmaceutical corporations; advertising; dumping; and drug promotion just to name a few. Van der Geest argues that this inquiry is incomplete in that it cannot address questions of power relations that allow pharmaceutical TNCs to continue with practices that prioritise profit over human lives. He proposes that investigators bring questions such as: what is it about TNCs that allow them to maintain a strong influence in government policies and insurance companies? Tucker (1997), for example, brings up how Sri Lanka and Bangladesh initially attempted to limit the “proliferation of drugs, tackle overpricing and

set up a national drugs industry” until American, British and German pharmaceutical TNCs informed them that they would mobilise their respective governments to suppress financial aid to these countries if such preventative measures were carried out (p.117). This is nothing less than a form of “drug colonialisation” (p.118). To understand the logic behind such scenarios, an emic perspective which analyses the “culture” of pharmaceutical corporations through consideration of the native’s (i.e. sales representatives) point of view (Van der Geest 1988: p.331-332).

Going back to the biography of drugs, Van der Geest states that a study of *prescriptions* can be utilised to reveal the social dynamics which inform this practice. While some doctors write prescriptions as a token of their concern for the patient (i.e. to acknowledge the seriousness of their health problem), others may be forced to prescribe certain drugs due to the demands of the patients. The way in which the economic interest of the doctors can influence their prescription practices is also an important topic of inquiry (p.334-335).

Distribution of pharmaceuticals in Third World countries is highly unregulated with an overabundance of superfluous (yet high-profit) drugs such as vitamins and a shortage of essential ones. Quite often one finds legal and illegal or prescription and non-prescription drugs treated the same way. For instance, in Punjab, patients may consult either pharmacists or doctors to obtain a diagnosis and drugs for their ailment. These practitioners may hand out anything from aspirin (or *Dispirin*, in India) to a malaria pill. Patients themselves may ask for what they need – I recall one instance in which I was casually told to go see a pharmacist in order to obtain my weekly malaria pill as I did not have my personal supply on me at that point. There were no issues of obtaining a

prescription – as long as you knew what you needed, you could get it. The role of drug vendors, which may include pharmacists, who have not received any formal training can be studied under the rubric of distribution (p.337-338).

The *use* of medicines warrants analysis through a “patient-centred approach” to consider the “context of drug use” which may be done through an examination of “kinship, religion, medical pluralism and the integration of new ideas or practices with more traditional ones” (p.339). The conceptualisation or significance of pharmaceuticals, which varies across cultures, also needs to be considered; the reception of pharmaceuticals by non-Westerners is a topic discussed in many of the pharmaceutical anthropology readings (Haak 1988; Nichter 1996; Van der Geest & Whyte 1988; Van der Geest, Whyte & Hardon 1988).

To illustrate how certain medical substances may be re-interpreted so that they evoke both indigenous and foreign qualities, I will review an article from *The Context of Medicines in Developing Countries: Studies in Pharmaceutical Anthropology* (1988) written by Burghart entitled , “Penicillin: an Ancient Ayurvedic Medicine”. This piece discusses how penicillin was credited with a significant amount of healing properties by Biharian Indians of the north-east. Burghart initially studied under an Ayurvedic practitioner, Vaidya Ji, who included only two pharmaceuticals in his repertoire: penicillin, and coramine for those allergic to the former. Penicillin was thought to alleviate many ailments with its ability to “heat and dry the body” which is particularly helpful for “asthma, eosiniphilia, tuberculosis and bronchitis” (p.291). This drug was also known as the “barah lakhwala” (twelve hundred thousand) medicine after the number of international units written on the label. It is a salient colloquial term due to

the fact that penicillin is reputed to cure everything from syphilis to broken bones. Reading these numbers assures the Biharians that they are, indeed, getting the correct medicine (p. 296-297).

Vaidya Yi has invested penicillin with such extreme disease-eradicating properties that he uses it to clean his syringe and needle rather than immersing them in boiling water for required fifteen minutes (p.291). Burghart observes that in this context penicillin has acquired an anti-septic function similar to that of alcohol, or to the Ganges river – not only is it pure but it is capable of “purifying all other waters, without itself becoming impure” (p.292).

Vaidya Ji sometimes had clients who would buy their own vials of penicillin and ask him to inject one each day in order to “dry out” their asthma. Possibly, they would know for which illnesses penicillin was most effective through instruction booklets available in village bookstalls such as *The Modern Allopathic Injection Book* aimed at a rural Hindi-speaking audience (p.295).

Despite the popularity of penicillin (and perhaps because Vaidya Ji is not content merely being a dispenser of medications) he is not convinced that allopathic treatment is the most effective. He argues that one of its main weakness is that it only addresses the symptoms and overlooks the underlying causes (p.293). It should be noted that the patients often demanded injections and the practitioner usually had no choice but to appease his clients if he wished to maintain his practice. Practitioners, particularly those in rural areas, know that “local autonomy from biomedicine” is equated with bankruptcy (p.293).

As appealing as such re-interpretations are, Van der Geest (1988) warns that anthropologists may be so caught up in looking for a cultural construction of drugs, that they may sometimes create them,

Anthropologists sometimes expect clear-cut, articulate, ideas where their informants may be inarticulate and vague. They are trained not to be satisfied with the answer 'I don't know', but to press further until the informant tells what he 'knows' (p.342).

I must admit, I went to rural Punjab with the hope that I would come across many instances of people re-interpreting pharmaceuticals with their own ideas of the significance of certain drugs which may have been related to its taste, colour, physiological effects and origin of manufacture. Thus, I asked questions concerning the types of pharmaceuticals people took, where they were manufactured (to see if Western-produced ones were held in higher esteem), if they kept medications at home and other questions related to their personal treatment of medicines. I thought that perhaps people would elaborate and describe how they preferred such and such brand because of its efficacy or how they kept some pills at home to be used for a certain illness because of its side effects. Apart from the phenomena of injecting oneself with allergy medicine for a mental and physical body effect, *nishan* (mental or bodily stimulation), amongst young men in their twenties, I did not come across many instances in which people took pharmaceuticals and created novel uses for them. It seemed that knowledge of the workings of medicine was something that was out of reach for commoners and the exclusive domain of medical practitioners, sometimes I would ask questions regarding the origin or names of certain medications and my informants would simply shrug and reply, "What do we know?". Granted, this may not be very different from the average

North Americaner patient, but it stands in contrast to other Third World consumers such as the Nyole of East Africa who were drawn to medicines coming from exotic locations such as “Zandu” medicine made in Bombay (Whyte 1988: p.225).

Efficacy goes past the pharmacological effects of the drugs to take into account the effect of the physical properties of the substance (such as its shape, colour, texture and taste); the attributes of the patient (gender, social class, education); the medical practitioner (status, personality); and the setting (clinic, hospital) in which the medical encounter takes place (p.344). This perspective seeks to learn how the meaning given to drugs relates to the patient’s healing. One way in which this has been studied has been the placebo effect (p.344-345). Researchers need to go beyond this and articulate the significance of health and healing in a given population and the influence this has upon health-seeking behaviour.

With my research, I hope to contribute towards a more comprehensive understanding of pharmaceuticals by providing an ethnographic description of the conditions facilitating the practice of biomedicine in rural Punjab. The next chapter examines medical practices found in this state, the significance of village medical practitioners to patients, and expectations patients have towards healthcare. Chapter Three portrays the widespread use of injections, both medical and illicit, and examines the reasoning behind it. The following chapter looks at health care and development and its impact upon health treatment options. The final chapter considers the Punjabi’s conceptualisation of medicine and its assimilation into their worldview in light of agricultural production dependent upon pesticides and fertilisers creating a “chemical

society”. As a starting point, I will provide a description of Punjab and situate myself as a native anthropologist.

The Anthropologist in India

Profile of Punjab

India, which may be more appropriately understood as a subcontinent than nation, is home to about one billion inhabitants who differ from one another in terms of caste, religion, language and geographical location. Most North Indians are descendents of the Aryans who invaded the region in 1600 B.C. and developed the Vedic civilization with its pronounced caste divisions. The southern part of India remains populated principally by Dravidians who existed in India before the Aryans. While Hindi is the main national language, there are 18 other official languages spoken. Hinduism is the most widespread religion (83%), followed by Moslems (11%) and Sikhs (2.5%) (World Guide 1999: p.301-302).

Punjab, meaning “five rivers”, is a plains region located in the northwest, known as the ‘breadbasket of the nation’ due to the amount of cereal (wheat and corn) grown in this area and populated by Sikhs. The partitioning of half of Punjab into Pakistan during Independence resulted in a displacement of Sikhs in the Indian half of Punjab and Moslems in the Pakistani half. Thus, in today’s Punjab, Sikhs form the main ethnic group who make up about 2% of the national population, speak Punjabi (a Sanskrit language related to Hindi), and follow the religious tenets of Sikhism. Sikhs can be divided into four castes from upper to lower: Jats, Ramgharias, Chamars and Chures, the latter of whom who labour as leatherworkers and sweepers in India (Krause 1989: 565).

The Jat Sikhs are the land-owning agriculturalists of the Punjab region. As I personally am of Jat Sikh background, I had easiest access to others of the same caste.

Punjabis enjoy a good standard of living with the highest per capita income in India, which can be attributed to two factors. One is the Green Revolution agriculture practices of the late 1960s which encouraged the growth of select cash crops with High Yield Variety seeds and various pesticides and fertilisers. This mechanised and specialised agriculture which led to higher productivity and increased wages. The scenery of this state, characterised with large acreages of a few basic crops, machinery, and migrant workers from northeast India, stands testament to its modern agricultural practices. Seventy percent of the Punjabi population resides in the rural areas and work as commercial farmers (Gill & Ghuman 2000: p.4474); they have also been able to supplement their income by keeping cattle and selling dairy to neighbours and cooperatives. Another significant factor that has allowed Punjabis to create and maintain a high standard of living have been the remittances of the diaspora as family members immigrate to Western Europe and North America.

Punjab's intense economic development following the Green Revolution gave way to a high rate of urbanisation (Gill & Ghuman 2000: p.4476). While in 1951, 21.7% of the population lived in urban areas, in 1998 this increased to 31%. This has had a negative environmental and health impact upon rural areas due to the fact that urban areas are dumping sewage and waste in the surrounding environs (p.4476). It has also meant that an increasing number of health facilities are being established in urban settings while rural areas are being disregarded.

Situating the Native Anthropologist

In this section, I wish to elaborate upon my position as a native anthropologist with an interest in healthcare and medicine in rural Punjab and the influence of my research topic and status upon field data.

I started my Master's degree with an interest in learning about the health trajectories of Indians all the while wanting to comment on the effect of the capitalist economy upon access to healthcare. After a few months in the graduate program, I was invited to join the Culture and Consumption research team at Concordia headed by Professor David Howes who required a fieldworker to visit India and collect data on consumer practices. I thought that a study of the consumption of pharmaceuticals would be the best way of contributing to the project and to my personal research interests.

My plans to visit Punjab for the first time for three months, all by myself, to conduct fieldwork were met with great worry amongst my family members. They remarked upon the demanding village life conditions: I would have to live with high temperatures, unreliable electricity, language problems and if I became sick, the unqualified medical practitioners. The nature of my research made the last concern the most prominent. When I would announce my fieldwork plans to various Canadian relatives, they would bring up all sorts of stories depicting the dismal state of health care in India. I would hear stories about delivery boys that would bring the wrong medicine because they could not read, dirty injection needles, and uncaring doctors. When I arrived in India, the Punjabi villagers would remark that these "small doctors" were not best health care providers. Yet, these were the patients' main mode of recourse because

they ones primarily available for them. Doctors with more education would often leave the village to work for more money.

Once my family accepted that I was indeed going to India (this required much persuasion), I was set up with relatives in my mother's village and my father's village in Punjab. My family in Canada became *gatekeepers* (Hamersly & Atkinson 1995: 134-136) to my family in India who then became the subsequent *gatekeepers* and channeled me into *their* networks. I divided my time between two villages. One was a small village, Nimbu Balara, with a population of 350 and the other, Malladah⁵, with a population of 5 000. Nimbu Balara was a small farming village, however, it was not completely isolated because there was a major village, which had a range of facilities such as medical clinics and assorted shops selling fabrics and food, a five-minute scooter-ride away. Malladah was an industrial village which had an automobile parts factory, Khalsa Auto drawing in workers from nearby villages. There was still a significant amount of agriculturalists who tended to fields of crops while a new factory was being constructed on the edges and the roads in between fields became increasingly congested with traffic. To avoid boredom and to maintain some variety, I took back and forth trips between the two, all the time having to assure my hosts that they did not offend or mistreat me and having to make up excuses to leave (such as, "My malaria pills are in Nimbu Balara").

It was fieldwork for this thesis that led to my visiting India for the first time. I arrived in rural Punjab, after a few days delay following the September 11th tragedy, for a period of three months from September 2001 to December 2001. I interviewed 10 doctors, 3 pharmacists and 10 laypeople. I met my informants through a network of

⁵ Both the villages I refer to are alias names.

family members who knew them as patients, relatives, or neighbours. I was able to communicate easily as I have basic command of Punjabi and general understanding of the Punjabi way of life as I was raised in a Punjabi environment. Almost all my interviews were conducted in Punjabi and I was usually accompanied by a relative who would bring me to the medical clinic or pharmacy and sometimes help with comprehension (my accent, my ideas needed to be “translated” sometimes) for the interview.

Convincing my gatekeepers that I required contacts and interviews formed the most stressful part of my stay. My accompaniments had to negotiate time for me from their daily farm-based schedule, they also had to find out when doctors were available to speak with me. Besides, I felt bad impinging upon their time and constantly requesting another interview or reminding them of promised interviews, but going to visit doctors by myself, as a young female visitor, was out of the question.

At the same time, having immediate access to the lives of these gatekeepers provided much “informal” data in the way of participant-observation and spontaneous conversation about health. While going for a walk with a cousin, I would see her call out to an eight-year-old boy who had returned from receiving an injection from a doctor’s office. Other times, I would be called upon to wrap up a selection of ground pills for an elderly lady before she went out for the day. I was able to witness the life-cycle of illness as household members discussed symptoms, contemplated treatment and then visited medical practitioners.

There exist many assumptions about the native anthropologist. Some argue that she has an advantage with field research because she has more familiarity with the

language and may be able to pick up on subtle social cues governing the behaviour of a given culture, which will give her a head-start at adapting (Altorki and El-Solh 1988: p.16). However, at the same time, familiarity has its own shortcomings: “language and cultural differences cease to constitute ‘safety barriers’”. Also, the native anthropologist may not be able to take a step back and recognize modes of behaviour that she has been socialised to follow (p.8).

In my case, my data collection was influenced by the fact that I, as a young visitor - daughter of *so-and-so*, granddaughter of *so-and-so*, niece of *so-and-so* - incurred obligations from my fieldwork community. As family members, my relatives were expected to feed me, house me, and make sure my fieldwork went well. I was to accept this hospitality with no qualms. However, it was quite difficult for me and my hosts to understand each other’s needs. My relatives found my fieldwork plans to be bizarre – they wondered why I cared so much about people’s medical habits if I was not going to be a doctor and why I came to India to *learn* when much better educational facilities existed in Canada.

My Indian relatives understood learning as an activity that occurred only in schools and did not relate to the concept of learning through more informal means such as interviews. At the beginning of my stay, relatives were fixated on taking me on tours of schools as an attempt to help me ‘study’ India. They assumed that since I was here doing schoolwork, it would be most appropriate for me to visit schools and interview teachers. When I had complained that I was getting nothing done and wanted to start fieldwork, my uncle took me on a tour of a local public girls’ school. It was actually quite embarrassing. I was lauded as the foreigner who came to learn about India and was

forced to enter classrooms while the students stood up and greeted me in unison, while all I could do was to respond by smiling awkwardly. We met the principal and my uncle coaxed me to ask her a few interview questions. “What questions?” I asked full of nervousness because I had never done an interview in Punjab and “acted” like an anthropologist. He replied, “Anything. Just do an interview and ask her a few things. We didn’t come here for nothing”. And so I had to quickly improvise some questions on a subject matter I had little interest in (schooling). I was taken on school tours in both villages with more to come until I declared my lack of interest in them. My relatives had never encountered anyone that had come to India to study, but they were more familiar with Indians raised abroad who visited Punjab on their holidays. For them, this was a more salient reason for coming to India. Visitors and distant relatives would ask, “How much longer is your vacation?” while I would be thinking in panic, “It is not a vacation! I need to do interviews! I need data!”

While obtaining contacts was relatively easy with my hosts acquiring medical practitioners for me by getting in touch with their doctors and relatives who were involved in the medical profession, getting interviews was a little more difficult for a number of reasons. While my relatives found the idea of doing interviews and participant-observation as odd or amusing, some of the doctors and pharmacists I wanted to interview felt quite threatened by my methods. People in Punjab understood interviewing as being an instrument used by the police, government workers, and reporters to expose a person’s wrongdoings and incriminate them⁶. Various family

⁶ Indeed, the one time I witnessed an interview that was not done by me was in a case where two government officials were speaking to my aunt and trying to obtain information about a forged passport that some villager was suspected of possessing.

members told me that these doctors were probably concerned about me interviewing as most of them were not fully qualified practitioners⁷ or engaged in questionable practices such as overpricing medications. Thus, the slight suspicions I had acquired towards village medical practitioners from my Indo-Canadian relatives were intensified from such comments. Thus, it was easy to interpret their reservations towards me as having to do with their clinical practice even though it was probably based on intimidation of me as the anthropologist from the West.

The task of actually going to the clinic and doing an interview was also an issue in itself, as young unmarried females⁸ (particularly foreign ones) are not granted mobility in the public sphere because they are considered to be very vulnerable. In rural Punjab, females require constant protection from the world outside the household and are rarely left at home alone or seldom go to the village if they do not have to. Quite frequently, young women hardly went anywhere by themselves and some of them refused to go to schools located in the cities because they were intimidated by taking the bus and being 'out there' alone. I knew of some girls who lived only a few blocks away from each other, but would go months without seeing each other because they were constrained by school and household responsibilities and could not negotiate enough free time and willpower (asking for permission, justifying themselves) to socialise. When I was in the field, seldom was I able to venture anywhere alone. I did not feel comfortable doing it because it did not seem normal and I was not sure if any danger really existed out there or not, so I played it safe. I recall being alone in a public environment two times – once

⁷ The most educated doctors were generally found in large Indian cities or have immigrated to the West.

⁸ Typically married women only went out with their hair covered, which signified their married status.

was to pick up a pair of pants I had tailored and the other time was in a high-end shopping district in New Delhi. Not being able to venture for too long or for too far on my own made it difficult to fulfill my research needs for I would have liked to do more interviews as there was really nothing else to do in a Punjabi village, but I did not want to impinge upon my relatives who had to make time for me in between their daily responsibilities of farm work, buffalo milkings, town meetings, wage work and so on. One senior relative, who liked to keep to himself, had reservations about approaching doctors on behalf of me, the strange native anthropologist, which did not help my case at all. I had to state my needs repeatedly and put up a good deal of fussing to get him to come with me for interviews. It was difficult to engage in informal conversation with some of the doctors because I felt like I was being observed and unintentionally rushed by my accompaniments. Thus, I might have missed out on opportunities to relate to them on a more friendly level. Then again, this might not have occurred because such interaction could be inappropriate considering the pattern of gender relations in Punjab⁹. Or maybe I had to invest more of myself for medical practitioners to open up to me. After all, what do they have to gain from talking to someone who will be leaving the village after a short while with research that conducted for academia rather than community development?

Thus, for all interviews, I was accompanied by someone (except one which was done at a clinic 3 minutes away from my household). Having someone with me, such as my (male) uncle or cousin probably made for an easier interview for both the medical practitioners and myself. Their presence could have neutralised my foreignness and

⁹ Males and females tend to lead more separate lives and interact with each other predominantly as family members – it is quite rare for men and women to be “friends” with each other.

made the interviewees feel 'safe' and I felt better being accompanied - like I was less of a threat. The interviewees were also compelled to comply with my relative's demands who were their long-time clients or friends.

Although I went through some bouts of frustration, in the end I concluded that my relatives did their best to satisfy my various needs. Before I went to India, I had asked my parents if I should buy my relatives presents before leaving as a thank you gift, but my mother said that they would not accept them from me because I was still considered a child. To the very end, I was kept on the receiving end of their hospitality. My aunt even tried to convince me to let her buy me some gold earrings to take back to Canada as a parting gift. I felt uncomfortable with this idea since I do not wear gold and I did not want to impose yet another expense, but my aunt argued that since they would be not be able to contribute to my wedding¹⁰, providing me gold was one way of making up for it. In the end, I still did not accept.

Doing Interviews

The first doctor who I attempted to interview was a general practitioner (GP) in a public or government hospital. Two neighbours (a husband and wife, middle-aged) accompanied me and introduced me as a family member who had come from Canada to study in India. The doctor was initially curious about me but my foreign status (accentuated by my accented Punjabi) and strange requests (I asked if I could do some participant-observation of the activity in the hospital and interview some patients – if

¹⁰ It is assumed that every woman would get married at some point. When she did get married, family from her mother's side, the *nankay* were obliged to provide the bride with certain gifts, in particular, a gold jewellery set.

they were willing) set him on guard, which made him ask a barrage of questions. He asked what I was doing here, what I wanted to do, if I had done any interviews, if I had formal permission or an official letter¹¹ and so on. He asked if I was training to be a doctor - to which I responded no. He was not comfortable with the idea of a non-doctor being in his office and approaching patients for interviews. I tried to explain why I was required to engage in field research such as participant-observation and interviewing. He passed me to another doctor, the osteopath, who was quite amenable to me doing participant-observation in his office (once he was assured that I understood Punjabi, for some reason). I described to him my problem with the previous doctor. He suggested that I write the goals of my field research and interview questions to give it him. I wrote the required information, in English, and added the fact that my research would be “confidential and anonymous”¹². We both returned to the GP and he deliberated over my written paper for quite some time asking for clarification of words and repeatedly asked for the exact meaning of “confidential” and “anonymous”. He then stated that if I wanted to do research at the hospital, I would have to go the head office in the nearby city of Jullunder and obtain permission. I left the hospital feeling physically and emotionally distraught with my first full-blown fieldwork rejection and decided that I had no interest in working in him at that hospital as he was clearly hostile to me. Besides, the Indian bureaucratic system being the way it is, it would take months to receive permission.

If doctors were wary of me, then I would have to do something to create myself as being a more legitimate interviewer. I decided to request a letter describing my research

¹¹ After this encounter, I requested an official letter of explanation from Prof. David Howes and presented it to medical practitioners before interviews.

¹² I cannot write nor read in Punjabi.

and how the data would be used from David Howes, my supervisor at Concordia University. The letter felt like a gamble to me. It might intimidate doctors or it might justify my presence. All in all, the letter was not always required, but I always presented it and the medical practitioners would read it over and no longer have a problem with my research¹³.

I did not encounter any another doctor as defensive as the GP, but I had also changed my strategy. Instead of interviewing patients entering or exiting the clinic and conducting participant-observation of doctor-patient relations, I worked with the assumption that the medical practitioners would probably feel cautious of my presence and decided that interviewing them would be best because they could theoretically, control the information they wanted to divulge¹⁴. In hopes of putting them at ease, I emphasised that this research was going to be written up in Canada and started off with very general (or non-threatening) questions regarding yearly patterns of illness. Thus, in the practitioner's clinic, all I requested was their interview rather than participant observation of their activities and did not use the "snowballing effect" to obtain contacts with their patients for they might have concerns and feel responsible for their patients¹⁵. Patients, I would have to seek on my own; what I did was just get in contact with neighbours and friends and family of my relatives.

Once I started asking questions, they cooperated and felt able to respond. I think their wariness came more from confusion about what I was going to do rather than what I actually did. I took handwritten notes throughout the interview. This did not seem to

¹³ Most of the medical practitioners had a basic reading knowledge of English.

¹⁴ I had brought a mini tape recorder, but did not feel good about using it. I took notes in a fieldbook instead.

¹⁵ I wanted to do this so that I could be more of an independent anthropologist who would not have to rely upon her relatives for contacts. In the end, I had make use of what I had and use my relatives.

hamper the interview process. After the interview session, I would go home and expand upon the notes.

All of the medical practitioners I interviewed were trained in biomedicine (*allopathy*, in Indian-English terms) with a few who practiced some variant of indigenous medicine, such as Ayurveda or diet advice, depending on the patient's physical, emotional and financial condition. Most of these practitioners had their own clinics some of which adjoined the house and others that were located in commercial areas. I interviewed one doctor who worked at a private hospital and another who worked at a public hospital in the city of Nawanshar (near Nimbu Balara). I would usually go into their clinic late in the morning or before the evening rush when there were not many patients requiring the doctor's time. Aside from one doctor, Bala, I interviewed each of these doctors once. Interview lasted about an hour. Sometimes patients would come and I would use that encounter as an opportunity to conduct participant-observation. I conducted formal interviews once every few days. I kept two notebooks, one was for the data accrued through participant – observation and interviews and the other was more like a journal in which I recorded the joys and frustrations of being a native anthropologist in Punjab.

I enjoyed interviewing “patients” or laypeople the best as I was closer to them and they had more interesting things to say. Some of them, at first, would wonder why I was asking *them* for information on health and medicines as they were not even doctors. After I had convinced them that I needed to know how locals such as themselves dealt

with illness, they would cooperate. In these instances, I was sometimes unaccompanied or sometimes with a teenage female friend¹⁶.

One of the unquestioned advantages of being a “native” was the rich participant-observation opportunities it offered as I had easy access to people’s domestic spaces and casual conversations. The Punjabis were accustomed to seeing non-residential Indians (NRIs) from the United Kingdom, Canada and the United States. Thus, visitors and relatives alike would acknowledge me and then go on to discuss more pressing matters with other adults ranging from the latest harvest to the health of a household member. I would be able to witness the cycle of illnesses as household members discussed the onset of symptoms, contemplated treatment, and then took up various methods to become healthy.

¹⁶ Young unmarried women (i.e. teenagers or those in their early 20s) formed my main peer group.

CHAPTER 2

MEDICAL SYSTEMS AND MEDICAL PRACTITIONERS IN INDIA AND PUNJAB: INTERACTIONS AND OVERLAPS

This chapter's main focus is to elaborate upon the manner in which biomedicine has become assimilated into the daily lives of its users. I discuss the context of pharmaceutical use in rural Punjab through an overview of indigenous medical traditions of Punjab and the emergence of biomedicine. These systems are not necessarily conceptualised as discrete units by its user, there is some overlap, but more than not, biomedicine is held as a central point of reference for patients as they negotiate health. The chapter ends with a discussion of the village medical practitioners and elaborates upon their role as medicine dispensers.

The Medical Systems of India

Although my topic is concerned with the study of biomedicine in India, a consideration of indigenous medical systems is required as this forms the basis from which people approach foreign medical systems. India is host to a plurality of medical traditions, which overlap one another as patients make use of available resources in pursuit of health. This nation has had a long history of trade and exchange *within* and *without* its nation borders; thus a mixing and matching of goods, services and ideas has become a customary practice, and medical systems are no such exception. As Arnold (1993) points out, biomedicine did not simply arrive and spread over, it had to carve out a niche for itself in colonial India in the context of other medical systems. Even Ayurveda,

reputed as India's traditional medical system *par excellence*, is interpreted and practiced differently over the subcontinent by doctors and patients alike.

Biomedicine occupies a complex status as a privileged medical option all the while being incorporated into indigenous practice in various idiosyncratic ways as patients negotiate health. I have an example from the field to illustrate how biomedical remedy may be negotiated amongst other forms of indigenous treatment. I recall one incident in which Gurmit, a teenaged female friend of mine who also became a close informant, was making deep-fried vegetable nuggets (*pakoras*), and burnt her hand from the hot vegetable oil that accidentally splattered when she was cooking. She was in a great deal of pain and various neighbours and family members made suggestions. I recommended that she put her hand under cold running water. An elderly aunt suggested, "Put some oil on it, why did you put it under running water – this will make it worse", while I vehemently argued against the oil. Curiously, I heard, a few times "put some Colgate¹⁷ on it as soon as possible". "Colgate?" I thought to myself, "Because of its' cooling sensation?". Gurmit became more and more distressed until her father went to the clinic for her and returned with a few pills while she remained home – she was reluctant to visit doctors because she feared injections. Knowing my interest in such matters, her father told me what was given. Bala, the neighbourhood doctor, had given her a painkiller, a sleeping pill and a vitamin pill. He also recommended that Colgate be applied to her burn and that she soak her hand in *lassi* (a yogurt-based drink). Gurmit slept at night (thanks to the help of the sleeping pill, I suppose) with her hand dunked in a container of *lassi*. She remarked on how it drew the heat out of her hand, evidenced by

¹⁷ Colgate is a generic term for toothpaste, however, the non-gel version of Colgate is reputed to aid in burns.

the fact that her hand became warm quite quickly. None of the pills that she was given had any sort of pharmacological use for her burn, but these medications provided her with the means to solve her problem.

The following descriptions are general at best, and most effectively understood once they are contextualised in a given ethnographic setting, which brings out the manner in which medical systems can be interpreted as its users see fit.

Ayurveda

India's oldest and best-known system is the five thousand year old Ayurveda, based on Sanskrit texts. In addition to being a medical system, it is also a philosophy and religion. Although it is considered to be India's definitive medical system, it should be noted that the form of Ayurveda presented in religious texts is not a reality for most of the Indian population. This has to do with the fact that the texts are inaccessible and cryptic and also that following a wholly Ayurvedic treatment is not financially feasible for many. It should be noted here that the influence of Ayurveda extends throughout South Asia to countries such as Sri Lanka and that it takes on different forms depending on who is practicing it, where it is being practiced and with which other medical systems it is integrated (Nordstrom 1988).

I will briefly go over some tenets of Ayurveda. As a medical system, it encompasses eight branches:

- 1) general principles of medicine
- 2) pathology

- 3) diagnostics
 - 4) physiology and anatomy
 - 5) prognosis
 - 6) therapeutics
 - 7) pharmaceuticals
 - 8) means of assuring success in treatment
- (Basham 1976: p.20).

Ayurveda is based upon correspondences between the world and humans. The five elements that compose the universe - fire, water, wind, earth and ether - also constitute the three humours (*doshas*), tissue components (*dhatu*s), and refuse (*malas*) of the human body. A person is healthy when these are all in equilibrium (Pflug 1992: p.27-29), yet equilibrium varies between individuals. Ayurvedic practitioners proceed by examining the patient as whole individual into him/herself in contrast to the biomedical method which investigates the similarities of a disease amongst different people (Pflug 1992: p.37).

Although Ayurveda was not a completely customary medical system in India, it was not entirely unknown either. In Punjab, I would see a few pharmacies and practitioners with signs declaring their affiliation with Ayurveda. One informant, Raj, stated that while some of these places marketed themselves this way, they were really “allopathic” (biomedical) and had only some token medicines out for display to attract customers, “these doctors advertise their light medicines and display their Ayurvedic medicines in the front. In the back, they keep their English medicines and hand those out in secret”. He was of the opinion that Ayurvedic doctors were “light” (*halka*), which meant that their medicines were not effective enough to cure ailments.

Although biomedicine was the primary mode of recourse for rural Punjabis, Ayurvedic medicine was used by some for chronic low-grade conditions such as

digestive problems, fatigue, and sore joints. The most popular use of Ayurvedic medicines that I came across was their use as appetite-stimulants. Amongst the rural Punjabis, having a good appetite was essential for complete well-being and if this was lacking, one could take “hunger medicine” to stimulate the appetite. This medicine was particularly encouraged for toddlers who were not interested in eating. I knew of a young woman who was contemplating this treatment as she ate very little and one of my informants, Shindo, a schoolteacher, took it on a regular basis. I learned this when I asked if she took any Ayurvedic or homeopathic medicines,

[I take it] for indigestion. Allopathic doctors did not cure my indigestion. Ayurvedic medicine was more helpful...[Mandeep: What does it look like?] It is a coloured powder that costs Rs. 50 a month, which I eat two times a day. It has made me feel an appetite again.

Ayurvedic medicine was used to stimulate hunger and also popular for digestive problems. One elderly lady would purchase some digestive tablets from the general store nearby and keep them on her person in case she required it. I tried one and it had a salty and savoury taste.

Although Ayurveda was not very common in the village, a few doctors believed it was a better option, one doctor stated, “Ayurveda has been around for a long time and has better medicine...Urban people prefer Ayurvedic treatment because they fear the side effects of (biomedical) antibiotics which affects their liver, intestine and stomach. An allopathic patient needs a lot of different medicines”. As in North America, a non-biomedical option, such as Ayurveda, was seen as an option for the privileged and progressive patient,

The low class seeks allopathic because it provides quick relief, they trust injections and have little faith in the tiny pills of homeopathy. The educated seek homeopathy or Ayurveda. It is costly and a long course of meds are needed. Whether I prescribe allopathic or Ayurvedic medicine depends on the patient: who can afford what. And who can understand it...Who uses Ayurveda? Educated, aware people who are interested in having less side effects.
(Dr. Harkesh Singh)

While Ayurveda, theoretically, offers a vast range of options its use is specifically directed to particular illnesses by those who are well-versed in the rhetoric of naturalist health care and, most importantly, can afford it.

Unani

Another important tradition forming part of India's heterogeneous medical practices is Unani, a Greek Galenic medical system which become heavily Islamicized around the ninth century after its work was translated into Arabic (Burgel 1976: p.44-45). It competed for acceptance with the religious Prophetic medical system brought by the nomadic Bedouins from the Middle East (Burgel 1976).

Galenic medicine was based upon a humoural model of body. Each humour could be combined with four different qualities which created different constitutions within people.

<u>Humours</u>	<u>Qualities</u>
Blood	warmth/heat
Mucus	cold
Yellow bile	moisture/dampness
Black bile	dryness

(Burgel 1976: p.47)

Exterior factors such as weather, occupation or age were primary elements influencing the humours. Of these, food was the most important factor which transformed the body. It was thought to be heated in the stomach and then 'boiled' the second time in the liver after which it would be transported to different organs of the body with the rest being excreted (p.47).

In Punjab, I did not hear much of Unani, *per se*. Yet, some informants, such as Ajit, a man in his 70s, referred to indigenous practitioners who practiced *Desi* (indigenous) medicine thirty or forty years ago as *hakims* (Unani practitioner) and his description of their treatment evoked typical Unani techniques. The *hakims* would check the patient's pulse with three fingers on the wrist for one or two minutes, and then ask what was ailing the patient. They would write instructions for a suitable preparation that the patient could make at home. The entire procedure would take about 15 minutes and they would not demand any money. The practice of obtaining written instructions from the hakim is a popular element of Unani. Izhar (1990) recalls how non-resident Indians working in the Middle East in the 1800s would mail their home clinics in India a description of their illness and seek medical advice and treatment. Apparently, this comes from Purdah observations during the Mughal period in which Muslim women, who were obliged to spend more of their lives in the home, obtained medicine based on verbal descriptions (p.1140).

Homeopathy

Homeopathy was introduced in the early nineteenth century; and although it was of German origin, it was readily incorporated into indigenous systems due to the fact that its basic tenets were easily understood and similar to Ayurvedic principles with its medicines described as holding mystical properties and its proponents being sympathetic to Indian medical practices. The German origins and biomedical doctor's opposition to homeopathy provided a way for nationalist Indian urban elites to express their affiliation with a 'modern' system all the while resisting British colonial power (Leslie 1976: p.238). Homeopathy is much more popular in northeast India (Jeffery 1982: p.1837).

Amongst my informants, homeopathy was not considered a very effective treatment. It was deemed ineffective because it was "light" (*halkee*) and had "slow side effects". Its use was only brought up by one informant, Gurmit, whose grandmother had utilised it during her long bout with illness. Gurmit had used homeopathic medicine as well for a scalp problem, but to no avail. She said that "it worked too slow".

Desi medicine

In a pluralistic medical setting such as India, indigenous medical systems are rarely neatly defined and separated. This can be attributed to the fact that, in addition to indigenous medical practitioners, there also existed an assortment of "religious scholars

or learned priests with unusual healing abilities” along with “local folk healers, bonesetters, and midwives” (Leslie 1976: p.213).

I met a botanist who described to me the work of a folk healer who followed a very specialised trade: her expertise lay in the extraction of glass embedded in people’s skin. She was consulted when all other options had proven unsuccessful. In one instance, there had been a man who had been on the receiving end of a beaker explosion that resulted in fine glass being embedded all over his arms and face. The doctors in the best state hospital (in the city of Ludhiana) were not able to do a complete extraction. Accordingly, this man went to go see the famed glass extractor in the neighbouring state of Patiala. This specialist massaged him and used half a knife blade to extract the remaining glass. Apparently she used to charge very little money, but now charged a moderate amount; the botanist stated her costs were “not unaffordable, but not unforgettable either”.

Some traditional Punjabi medical treatment involved practitioners who ministered to both humans and animals. Ajit’s mother’s brother, (*mahmah*) used to be an orthopedic surgeon at the turn of the twentieth century who treat humans and cattle (mainly water buffalo and sometimes cows). This village surgeon did not go to school, but learned everything through practice. Before I went to India for fieldwork, a cousin recounted a story from her visit to India a few years ago in which a veterinarian was giving a buffalo an injection and there was an elderly lady nearby who asked if she could not have an injection as she was feeling ill too. The veterinarian relented and gave her one. While this story was recounted to illustrate the dismal state of medical care in Punjab, it also invokes traditional rural medical practices.

In Punjab, indigenous medical systems are categorised under one overarching term: *Desi* (indigenous)¹⁸ medicine – a word far more widely used than Ayurveda, Unani, or homeopathy. It can be assumed that, depending upon the person, it is probable that *Desi* medicine refers to some combination of these medical systems. For instance, while some people described hakims as practicing *Desi* medicine, other described the *vaid*s (Ayurvedic doctors) as the practitioners.¹⁹

For most informants, *Desi* medicine consisted of using foods, tea and spices in particular combinations for certain ailments. Some examples of *Desi* remedies include using a mixture of almonds, raisins, along with *kask kask* (a brown seed), for headaches and using *soond* (a root related to ginger) for “acidity and digestive problems”. *Desi* medicine was mainly comprised of home remedies from substances that patients were familiar with. One doctor from Nimbu Balara had a degree in nutritional medicine which was displayed on his along with his biomedical qualifications and frequently gave diet advice in addition to the medications. This is not an unusual practice, Ferguson (1988) writes that in El Salvador, pharmacists would advise their patients to avoid foods considered cooling such as fruits and cold drinks (32). The Punjabis also followed a humoural model for foods:

Warm (Garam)

Chilis
Onions
Most spice mixtures (masalas)
Tea
Coffee
White Sugar

Cool (Thanda)

Rice
Potatoes
Cauliflower
Yogurt
Oily, fried foods
Molasses (brown sugar)

¹⁸ amongst the Indian diaspora, *Desi* can also mean “Indian”.
¹⁹ *vaidya*, refers to traditional doctors (Basham 1976: p.18).

People were classified as having either *garam* or *thanda* natures. Those who were prone to becoming angry quickly (i.e. high-tempered) or excitable were *garam* while those who were calm, reserved and quiet were *thanda*. Their natures would have a bearing as to how they would react to foods. A *thanda* person might suffer particular effects from eating too many *thanda* foods. One teenage female informant, Surjit, recounted to me her experience of eating too much rice, a *thanda* substance:

I had rice for dinner, then the next day I got up and had some breakfast and wrapped some up to take to school with me. Later that evening, when I returned from school, my eye had become completely swollen and started tearing, my *thaii* (father's elder brother's wife) started yelling at me for eating too much rice. She doesn't like it when I make it because I end up eating too much...My grandfather doesn't like me to eat peanuts, which are also cooling, because they make you cough [another reaction to cooling substances]...You don't know how it feels to eat too many cold foods? Your arms start hurting here (points to upper arms), you feel tired and sleepy, your eyes feel heavy...

Pharmaceuticals were not classified as being warm or cooling, but certain foods could help with their ingestion. When I was feeling physically agitated from my weekly anti-malarial pill, with a burning sensation in my stomach and chest along with dizziness, my aunt recommended that I drink milk to neutralise the effects. She told me that in the summer, Punjabis took anti-malarials twice a week and drank milk to counter its "drying" effects and as a remedy for the dizziness. For me, milk became an "anchor" against the effects of anti-malarials. Milk is similarly understood as a buffer in another case described by Nichter (1989) in which the Kanarese of South India drink milk to decrease the effects of a deworming medicine (local belief assumes that a few [not too many] worms are needed to facilitate digestion) (p.198-199). Milk is an important substance in Ayurvedic medicine and is reputed as supremely beneficial to one's health. Amongst the

Punjabis, warm milk was ritualistically drunk every evening before bedtime. It was reputed to help one sleep.

Ajit commented that it had been about twenty years since an exclusively Desi health care approach stopped being prevalent. “[It] no longer has any effect”, he remarked which he blamed upon the increased chemicalisation of crops (i.e. with pesticides). This intriguing statement was to be echoed by other informants, and I will elaborate upon this when I take up the discussion of pharmaceuticals, modernity and health in the final chapter.

An acknowledgement of indigenous medical systems remains important as it forms the basis from which Punjabis understand and utilise biomedicine. For example, the persistence of indigenous medical mannerisms can be illustrated in the way by which informants describe themselves as “eating” rather than “taking” pharmaceuticals. Traditional Punjabi medicine was almost always food-based.

The ways in which Punjabis may reconcile local conceptualisations of the body with biomedicine may be brought out through an articulation of blood pressure or *BP*. This ailment can be used to denote emotional feelings which are related to physical conditions based on the heart. A person who has feelings of anger can attribute this to high *BP*. However, emotions can also aggravate *BP*. Diet was held as being the main culprit contributing to low or high *BP*. Those that did not eat enough had low *BP* while those that ate an excess of fatty products suffered from high *BP*. Relatively new diseases such as high and low blood pressure (*BP*) have been appropriated into this humoral model. Those with high *BP* were *garam* while those with low *BP* were *thanda*²⁰. Along with taking medications, they had to be careful to maintain a balanced diet. For instance,

²⁰ High blood pressure was far more common in Punjab.

those with high *BP* had to be careful to moderate their intake of spicy foods and oils. To provide a fuller understanding of this condition, I will refer to research conducted by Krause (1989) on the experience of the “sinking heart” as articulated by Punjabis in the United Kingdom where she conducted her research. A sinking heart was described as occurring “when the heart moves downwards or decreases in strength” (p.564).

When my heart sinks (*dil ghirda hai*) my heart goes down (*tali janda*). One minute it goes up and the next minute it goes down. It is a sudden feeling which only takes one moment. But it may happen again. The feeling I have is that my heart has less force (*dil ghatda*) (p.566).

A consideration of the Punjabi conceptualisation of the heart as important in understanding the influence it may have upon health. Thus, it is not surprising that sinking heart can account for a variety of states ranging from “hunger, sunstroke, people who have had heart attacks, people who have lost a relative or who worry about the honour of their families” (p.564).

...The heart is not just a reservoir for physiological processes. In classical Ayurvedic texts the heart is also the seat of the mind and a reservoir for emotional processes. These processes affect the humoural balance in the heart, in the vessels and in other parts of the body (Krause 1989: p.568).

The heart is in optimal condition when it is balanced from a proper diet²¹, control of emotions and avoiding stressful situations, if possible. Thus, sinking heart, an unbalanced state, is a condition which Punjabis seek to minimise (Krause 1989: p.568-569). They who had to a tendency to worry a lot such as the poor, seniors and women were held as being more vulnerable to sinking heart.

²¹ Environmental surroundings determine diet needs. The Punjabis interviewed by Krause felt that the damp British climate was making them react differently to foods (p.569).

The sinking heart is a Punjabi “communication of distress” (p.563) similar to *BP*, a term utilised by my informants in India. Considering the importance of the heart, it makes sense that *BP* was such a salient and widespread idiom capable of accounting for conditions resulting from diet, lifestyle, and emotions. The desire for a balanced heart may also help explain why the villagers continually pursued treatment that would prevent or alleviate high or low *BP*.

When I was in Punjab, I was not aware of anyone suffering from a sinking heart. Perhaps my Punjabi was not sophisticated enough to fully understand discussions about emotions. I frequently heard phrases with the word “heart”, but I might thought speaking about the heart was a daily part of life and not something that referred to a kind of medical condition. As Krause observes, the heart (*dil*) and what English-speakers refer to as “I” are intertwined in Punjabi. For example, I was always asked “*Dil lagada?*” which meant, “Is your heart liking it here?”/ “Are you liking it here?”. Indeed, “the heart is identified with the most private and individual aspects of self” (p.568). If I had known about sinking heart, I could have paid more attention to conversations about the heart, if they took place in my presence.

Religion

Religious rituals also form an important component of health and healing. Chronically or fatally sick individuals may visit Sikh and Hindu temples to make

offerings intended to bring forth health.²² The Sikh's holy pilgrimage site, Amritsar Temple, is located in Punjab and is surrounded by a tank of holy water in which people may bathe for religious merit; this water is also rumoured to have healing properties.

One informant, a young woman named Surjit, described these religion-based possibilities in Punjab:

Some people can go to a *santh*, if they think that they have a bad spirit in them. The *santh* can beat them up and this is believed to make the spirit flee. Hindus can go to the Ganga [Ganges river] or to a river located nearby. It is not that hard to get to, they go there for funerals. You can also go the tanks of water of by the Gurdwara [Sikh temple]. You can take a bath in there to assure yourself of being well. If you are faced with a life-threatening illness and the doctor says that there are no other possibilities for you, you can go and take a bath as a last resort – leaving it up to God. If you are too sick to go there, someone else can go and bring some water in a bottle for you. You can drink this or put it into your bath. Also, you can go in front of the holy book [*Guru Granath Sahib*] and make a pact with God: “If I get well, then I will hold *Akand Path* as an offer of thanks”.

Punjabi priests may also give “advice and pastoral care [and] maybe called upon to treat illness, infertility, afflictions of the evil eye and to help solve family problems” (Krause 1989: p.566).

At the beginning of my stay, I was shown a temple that was visited by people from near and far who suffered various “life conditions” ranging from money problems to tense household affairs to failure to become pregnant. They visited this “priest” who would listen to their problems and then prescribe a ritual for them. For instance, one woman who could not conceive was told to take an apple he offered to her, do some fasting and then eat it under a tree at a certain period of the day. For another, who may have just purchased a new business, the priest might give him a rupee note (like a dollar bill) and instruct him to keep it on his person at all times for a period of days in order to

²² Baptised Sikhs, however, will only visit Sikh temples

attract money. My informant (a middle-aged Canadian who left Malladah in his mid-twenties) stated that the visitors are not obliged to leave behind a huge donation, but if this priests' rituals work, they will feel compelled to leave a big sum in thanks. Successful rituals also attract new people, which keep his practice going. This priest, apparently, started off as a carpenter near Malladah and then moved to Kolkota to look for more lucrative work. According to some of the Punjabis, northeast India is a place where many esoteric arts (black magic, according to some) are practiced. This carpenter learned some of these arts and then moved back to Punjab to set up his temple. He had visitors from all over Punjab, mostly of low castes, but some of my informant's relatives also visited him.

Biomedicine

Biomedicine can be alternately called Western medicine, modern medicine, conventional medicine, and in India, *angrezi* (English) medicine, cosmopolitan medicine²³, and allopathic medicine. The number of terms used to denote it stands testament to its worldwide influence and presence.

What is about biomedicine which allowed it to acquire such widespread influence and cultural authority? Some argue that it is its materialist premise which allows for an unqualified reading of the body. Indeed, the distinguishing feature of biomedicine is the degree to which it conforms to a "type of physical reductionism that radically separates the body from the nonbody", and focuses on "human physiology and even more

²³ This term was originally coined by Charles Leslie as it historised and drew "attention to the manner in which biomedicine and other forms of medicine were adopted in and adapted to cosmopolitan lifeworlds, thereby contributing to lifestyles concordant with capitalist expansion" (Lock and Nichter 2002: p. 2).

specifically on human *pathophysiology*” (Baer et al. 1997: p.11, italics mine). This is characteristic of the Cartesian thinking from the Enlightenment that distinguishes a “palpable *body* and intangible *mind*” (Scheper-Hughes & Lock 1987: p.8-9). Navarro (1978) elaborates on the social implications of such a medical philosophy, “disease was [no longer] an outcome of specific power relations but rather a biological phenomenon where the cause of disease was the immediately observable, the bacteria” (qtd. in Baer et al. 1997: 209). Combined with the fact that, in the context of colonial health and modernist development, biomedicine was represented as “cool-headed rationality and science, the purposeful dynamism, and the paternalistic humanitarianism of the West” (Arnold 1993: p. 292), one is able to see how it was able to acquire such cultural authority.

Biomedicine was never strictly a Western science. Basalla in his piece “The Spread of Western Science” argues that the development of Western science was informed by the vast exploration of the world conducted by the Europeans “ ‘the non-scientific society’ [i.e. non-Western] served Europe as a source of scientific ideas and observations”. Arnold (1993) observes that Basalla does not provide any defined time frame for this expansion and brings up how the practice and authority of Western science underwent significant change from the time of their tentative first voyages to those conducted centuries later (p.16-17). While the value of Basalla’s work effectively challenges the “Europeanness” of Western science, its shortcoming lies in the fact that it fails to consider dialectical relationships that existed between different science systems, instead, it assumes a displacement of non-Western science by Western science (p.17).

In colonial science, the environment was attributed with a great deal of importance upon disease and well-being. Thus, botanists, zoologists, geologists, ethonographers, amongst others, acted as medical authorities for the East Indian company. This had the effect of creating medicine as the “master narrative of scientific discourse, the disciplinary and professional base around which other ‘exploratory’ sciences were clustered” (Arnold 1993: p.21)

Despite the amount of resources dedicated to biomedicine, it was not able to assert itself in India quite so easily as it faced many environmental and cultural obstacles. Its British proponents were unfamiliar with the effects of the Indian terrain upon the locals and themselves. Before 1800, biomedicine had little influence upon the general Indian population due to the fact that its practice was limited to the European inhabitants of India or to strategic locations such as army bases and ports (Arnold 1992: p. 269). Biomedical hospitals were first built in the colonial cities of Kolkata, Mumbai, and Chennai in the seventeenth and eighteenth centuries (Arnold 1993: p.246). After the mid-nineteenth century, the British began to actively promote the use of biomedicine amongst inhabitants of India for it was deemed a better strategy that would allow them to be brought under control (p.292). As Comaroff (1993) puts it, “Western medicine had a powerful ontology, finding confirmation, in bodies at home and abroad, for the universalist claims of European reason” (p.324). In colonial science, the environment was attributed with a great deal of importance upon disease and well-being. Thus, botanists, zoologists, geologists, ethonographers, amongst others, acted as medical authorities for the East Indian company. This had the effect of creating medicine as the “master narrative of scientific discourse, the disciplinary and professional base around

which other ‘exploratory’ sciences were clustered” (Arnold 1993: p.21). The authority of colonial medicine was based upon its scientific premise in contrast with the seemingly superstitious and speculative nature of Indian medical systems (Arnold 1993: p.18).

Other obstacles preventing the spread of biomedicine were the sheer lack of available resources (such as hospitals and doctors) and resistance by the Indians. By the second half of the nineteenth century, the number and distribution of biomedical institutions, especially dispensaries (clinics), had become more widespread and were able to better serve the general public – although there was never enough to satisfy demand. Dispensaries eventually began to distribute medicine to treat a host of other common diseases such as malaria, dysentery, ulcers and worms. However, they were only able to alleviate the symptoms of disease – not cure it. In most cases, patients only resorted to biomedicine after they had consulted a number of indigenous practitioners (Arnold 1993: p.248-251). By the mid-nineteenth century, dispensaries became increasingly manned by Indian personnel as Europeans ultimately preferred working in hospitals or cities. This resulted in Indian doctors becoming representations and proponents of Western medicine by working for the dispensaries (p.253).

Hospitals did not meet with much success amongst the Indians for a number of reasons. Higher caste Hindus and Muslims had strong reservations against visiting European medical establishments because they were identified as being polluting places attracting society’s undesirables²⁴. The colonial medical authorities, who wished to upgrade the reputation of their hospitals, tried to improvise the accommodation of such patients through strategies such as constructing separate waiting rooms and the eventual building of hospitals exclusive to higher-caste members as well as tending to their diet

²⁴ This can be compared to the situation of SARS in Ontario during Winter 2003.

by providing them with specific foods and allowing (high-caste) Hindu Brahmins to bring their own water for their medicines (p.249-251, p.271). Certain hospitals became popular due to the fact that they performed procedures shunned by commoners such as surgical work, which was stigmatised as low caste barber's work by the higher caste Indians (p.251).

Joralemon (1999) notes that, more than anything else, it was biomedicine's success at containing epidemics, which enabled its authority to be established the world over (p.70). In the Indian context, Arnold (1993) observes that it was the plague epidemic, which allowed the practice of biomedicine to transcend to areas beyond the enclaves and enter the public space after 200 years of existence in India.

At the beginning of the twentieth century, the tenets of indigenous medicine began to be significantly challenged by biomedical doctors whose numbers had been steadily increasing. This conflict was exacerbated by the rise of the new bourgeois nationalist movement who simultaneously supported "Indian cultural renaissance" and the idea of Western science (Jeffery 1982: p.1836). Around 1914, or so, medicine comprised an important element of indigenous discourse on nationalism, progress and modernity. Arnold (1993) speculates that this was due, in large part, to "cumulative effect of state medicine and public health on the major towns and cities" which was investing biomedicine with added prestige and relevance to the Indians, particularly the elites (p.241). They began to use biomedicine to advance their nationalist agenda and provided a critique to the British who were accused of neglecting the well being of the Indian population (p.241, 245). Thus, it was up to the Indian leaders to take matters into their hands and use biomedicine to help bring forth a self-sufficient, independent nation.

Arnold remarks on the extent to which what had “once been the hallmark of an alien presence was fast becoming part of India’s own ideology and leadership” (p.288).

Yet, for the next few decades, indigenous medical practitioners continued to greatly outnumber biomedical practitioners which meant that the governmental bodies had no other choice but to allow for the continued teaching of indigenous medicine which was increasingly subordinated to a biomedical premise.

An attempt should be made to absorb the practitioners of the Ayurveda and Unani systems of medicine into the State health organization by giving them further scientific training where necessary (National Planning Committee qtd. in Jefferey 1982: p. 1836).

Thus, indigenous practitioners became valuable in so far as they were able to assist the biomedical enterprise and compensate for their lack of resources. The Punjabi Provincial Government, for instance, used Unani practitioners as “health extension workers” and as vaccination providers in the 1860s and 1870s, while the University of Punjab offered courses in Ayurveda and Unani until 1907 (Jeffery 1982: p.1835) which was problematic in principle, for some indigenous practitioners as it had never been the type of medical practice that could be taught in a university setting (Langford 1995). Indigenous medical systems continued along maintaining their ambiguous identity and subordinate status (Jeffery 1982: p.1836) which is well-represented in the mandate put forth by the National Planning Committee after India’s independence stating, “[m]edical training in every field should be based on scientific method”. Indigenous practitioners defended their systems arguing that “Ayurveda was already scientific; and that only racial bias and a lack of objectivity prevented cosmopolitan medicine [biomedicine] learning from the Indian systems” (p. 1837). Since then, various attempts at certification, registration,

incorporation of the biomedical and indigenous practitioners have been met with little success, and debate on these issues continues today. Indigenous medicine (categorised as Ayurveda, Homeopathy, Unani, Siddha, Yoga and Naturopathy) forms part of the medical systems recognised by the Indian Ministry of Health and Welfare²⁵, but as stated earlier, is utilized almost exclusively by the educated, urban and rich sector of the population, or as Greenhalgh puts it, by the “health-conscious (and healthy) upper middle classes” (1987: p. 317).

Interminglings

By the mid-twentieth century, biomedicine had begun to establish itself as a viable option in rural Punjab. From my interviews with village doctors and patients, I learned that biomedical hospitals and clinics were set up in the mid to late 1950s, however they only became a conventional option from the late 1970s and onwards. Yet, following the logic which motivates medical pluralism (i.e. pragmatics), some indigenous practitioners were already taking up certain elements of biomedicine to suit their needs before this time. When Taylor (1976) did research on indigenous medical practitioners in Punjab in the mid-1960s, he learned that: 36% were Ayurvedic; 22% were a combination of biomedical and indigenous systems and 15% practiced Unani and biomedicine. Only 3% practiced homeopathy (this system is more popular in north east India). Most interesting was the finding was that 80% of indigenous practitioners made use of pharmaceuticals, with 50% of this group using penicillin, “the great use of modern medicine surprised us. It showed that when we used the term “indigenous practitioner”,

²⁵ See their website: <http://indianmedicine.nic.in/html/acts/act.htm>

we were really taking about *indigenous practitioners of medicine, and not practitioners of indigenous medicine*” (Taylor 1976: 287, italics mine). More troubling was the observation that extremely powerful antibiotics had labels in Punjabi stating “for fever” and other relatively benign ailments. Practitioners obtained these pharmaceuticals from a well-stocked pharmacy in the nearby city of Ludhiana. There was one particularly popular Vaid who ran a lucrative practice and built his reputation upon penicillin injections, “[A] large syringe was used to inject a sizable dose into successive patients, the only gesture toward sterilisation being that he would wave the needle through a dirty pan of weak antiseptic” (p.288). Taylor and other researchers approached the Health Authority of India with these findings which were met with some surprise reactions since most government bodies assumed that indigenous practitioners were just fiddling around with herbs, roots and other innocuous medical materia (1976: 286-288).

Patients engage in a variety of tactics to become well and medical practitioners from different traditions also collaborate and build up comprehensive treatment options. This sort of exchange is not limited to a dialogue between biomedical and indigenous systems only, it also takes place between different indigenous systems. Leslie (1974: p.356) states that by the nineteenth and twentieth centuries, Ayurvedic medicine underwent a great change as its practitioners began to be influenced by certain aspects of the Unani medical framework. The practitioners found the sphygmology or pulse-taking technique of the Unani to be especially intriguing and it soon became a symbol of their skill. Ayurvedic practitioners also made use of Unani treatment substances such as mercury and opium (p.356-357).

Accordingly, just as Unani medicine has been influenced by Greek medicine, Ayurveda has been shaped by Unani. The Ayurvedic system today has a comprehensive therapy that includes biomedical and homeopathic treatment (Pflug 1992). The biomedical component was incorporated in the context of medical revivalism and cooptation that took place in the beginning of the nineteenth century. In 1835, the British Raj stated that European philosophy should provide the basis of medical education in contrast to earlier schemes which attempted to mix Indian and British traditions or restore Indian culture to its glorified past through a revival of tradition (Jeffery 1982: p. 1835). The Indian nationalist movement became more pronounced at the beginning of the twentieth century and because its proponents were interested in promoting “Indian culture renaissance as well as the idea of science”, Ayurveda was manipulated to stand for the two differing concepts: tradition and modernity. During the inter-war period, indigenous and biomedical systems continued to shade into each other as the former became more professionalised in hopes of obtaining increased legitimacy. Professionalisation was carried out by having medical practitioners undergo formal training in colleges and schools; the creation of professional associations and working for state medical organizations (Leslie 1974: p.358)²⁶. However, it was not unusual for those these new biomedical practitioners to also be trained in various indigenous medicine traditions or open up clinics with family members who practiced indigenous medicines (Leslie 1978: p.245).

²⁶ There remained some who refused such cooptation, one nineteenth-century British surgeon wrote this about a family of Ayurvedic practitioners, “[They would not sell or let their manuscripts be copied], from a belief that all the good to be derived from their possession, which God had bestowed on the individual and his family, would vanish on the work being sold, or even the precepts communicated, to unauthorized individuals” (Wise qtd. in Leslie 1974: p.358).

Doctors and Patients

“Well, you won’t be able to interview that doctor because he died a few days ago from a sickness. He had a serious drinking problem.” (Ajit, male, age 72)

“Were you able to interview him? Was he able to tell you something? He is so...this way and that way, he is never able to give a straight answer.” (next door neighbour, female, age 48)

“Bala would probably enjoy being interviewed by you. It would make him think that he is a big important doctor”. (Gurmit, female, age 18)

“Bala is known as the doctor who gives one pill for every symptom: a yellow one for a headache, a green one for the stomach...one for every problem and perhaps even one more!” (Gurmit, female, age 18)

“He also gives pills that puts people to sleep. Once in the summer, I ate a watermelon...that fruit that is full of water...I became sick and threw up from it. You take this pill so that you become relaxed and don’t throw up. Bala has such pills”. (Soni, female, age 24)

Me: What is a good doctor?

Senior lady: One who gives good medicines at a good rate (cost).

Me: What is a good medicine?

Senior lady: You know...pills, capsules, cough syrup.

Many types of medical practitioners operate in the villages of rural Punjab. There are private doctors of various qualifications, pharmacists, government doctors and, sometimes, indigenous doctors. Some practitioners had clinics in commercial areas while

others had makeshift clinics by their houses. If the village is big enough, there may be doctors within walking distance. This was the case in Malladah, with a population of a few thousand, which had a government hospital nearby. In Nimbu Balara, a village of a few hundred, inhabitants preferred to take a short scooter ride up the road to take advantage of the doctors located in the next village on the main street, which had a bigger and more-established selection. Overwhelmingly, patients chose or received biomedical treatment, although some doctors were also knowledgeable about indigenous or nutritional medicine. However, non-biomedical treatment was an exception rather than a rule and depended on the patient's profile such as the severity of their illness and their capacity to pay for the more expensive indigenous treatment.

Part-time medical practitioners, whether they worked for the government or had a private practice, were common in Punjab. Leslie (1978) noted the popularity of part-time practitioners in 1960s with a community of 80 000 in Punjab making use of 59 full-time and 300 part time indigenous practitioners. The same year, a South Indian district with a population of 120 000 had 6 biomedical doctors, 30 full time indigenous medicine practitioners and 598 part time indigenous medicine practitioners (p.241). Today, in Punjab, part time practitioners are usually biomedically-oriented.

These doctors may divide their time between various clinics and hospitals or between medical and non-medical work, which, in some cases, allows for a double income. For instance, one doctor worked in the government hospital for the mornings and ran his own clinic in the afternoons. Another pharmacist had a pharmacy in his name but he was only there in the early hours as he had a more lucrative job elsewhere.

Pharmacies that were manned by non-pharmacists are common in India. One of Nichter's (1998) informants asks,

Would a qualified pharmacist be willing to work in a chemist shop where he does not even get 2000 rupees a month? A B.Pharm graduate who works in a pharmaceutical company as a chemist...will get almost twice the salary and many attractive benefits. Why would a pharmacy graduate want to get into this boring business? (Nichter 1998: p.784)

Doctors had various degrees of certification. One doctor gave me his business card which included medical work he did in Uganda (along with his position as a policeman!). Another doctor, one who was well-respected, near Nimbu Balara, was distinguishable because he had obtained a certificate in nutritional medicine in New Delhi. Two of my 'lay informants' or potential patients made it a point to tell me whether a doctor had a BAMS degree or not. One informant, Raj, also pointed out how some doctors could practice with fake certificates simply by migrating from village to village or by bribing the police²⁷.

There were other medical practitioners in Punjab who chose to pursue non-medical work. One woman had a pharmacy license which she rented out to a pharmacy owner while she occupied herself with a teaching job. Once I had gone to see a doctor, who practiced indigenous medicine, but he was not at his clinic, his household reported that he was the city of Ludhiana for the week selling insurance. Another doctor, Bala, was a singer for events such as weddings, birthdays and other special events.

My informants preferred to visit private biomedical practitioners who were more conveniently-located, provided quick service, and considered more reliable and

²⁷ It would be an underestimate to say that bribes between citizens and authority figures are common in India.

personable than government doctors who worked in hospitals that were out of walking distance, with long-waiting lines and impersonal treatment along with other inconveniences. One informant, Ajit stated that he preferred to not visit hospitals because they took too much time and then one had to pay a visit to the chemist to obtain the medicines. For him, it was more convenient to visit a private practitioner (usually biomedical, in Punjab) who was familiar with his condition and able to provide the required medicines on the spot. Thus, he visited Bala because he “had good medicines”. This statement does not necessarily mean that it is only his medicines that are good. It may also be demonstrations of Bala’s concern for Ajit’s particular physiology and illness history which allows the doctor to provide the most effective treatment. In a hospital setting, patients may be examined by doctors who do not know too much of their particular conditions and end up giving them inappropriate medications.

As we can see, biomedical healthcare does not completely undermine local relationships. Ajit does not feel alienated by Bala and his reliance upon pharmaceutical. As a matter of fact, Van der Geest et al. (1996) observe that the patients’ uncertainty about quality of medicine encourages them to visit medical practitioners whose medicines are trusted to be effective. Similarly, merchants have it in their interests to keep customers by providing them with sound medication, “buying implies mutual trust. The seller is accountable to the client while a free [i.e. state-sponsored] health-care system may lead to a loss of accountability” (Van der Geest 1996: p.164-165). The impersonal and inefficient nature of government institutions did not appeal to my informants precisely for these reasons. Instead, people preferred to put much faith and trust in their practitioners, evidenced by the fact that more than one informant in

Malladah described Bala, a popular village doctor, as their “family doctor”, even when his medicines were not effective for the respondent in question. The intimacy between doctor and patients was reflected in their use of his first name and kinship terminology when directly addressing each other²⁸. Age, marriage status and gender of the patients determined whether they would call each other brother, sister, uncle, aunt²⁹. This was not limited to doctors, anyone whom one saw regularly in the village took on a family term, I followed etiquette and learned to refer to the young neighbourhood tailor and driver as *phaji* (“brother”) and the storekeeper as “Uncle”.

The agents of commerce and customers of the village were mutually dependent on each other. This is why some clients were given free medical treatment or financial credit. The non-anonymous nature of village life meant that the two parties had a responsibility to be reliable if they wished to maintain functional relations: if a doctor was rude, he would lose a patient from a limited pool; if a customer did not pay his tab, s/he would be unable to shop for household necessities. Word of mouth and gossip are other factors which could complicate the abovementioned matters.

Pharmacists, or *chemists*, as Indians call them are found in great abundance all over Punjab and work out of modest little shops crammed from top to bottom with various medicines. Patients lacking time or money often seek out the advice of pharmacists. Pharmacists may be referred to when the preceding options for medical care have not yielded fruitful results. One informant, Gurmit, had experienced scalp problems 4 years ago and began her medical trajectory by consulting a doctor in the Malladah

²⁸ This mode of address was used between any client and patron whether it was a clothing salesman, produce vendor or taxi driver.

²⁹ In Punjabi kinship terminology, “aunt” and “uncle” usually do not suffice, unless they are considered distant relatives. Ego’s mother’s aunt is “masi” (husband, “masid”, Ego’s mother’s brother is “mahmah” (wife, “mamie”). Ego’s father’s sister is “bhua” (husband, “foh-fohd”), ego’s father’s brother is “chacha” (wife, “chachi”). These are only general distinctions.

government hospital who passed a month putting on bandaids and an antiseptic to her scalp. This did not work to her satisfaction. She went to visit a homeopath who gave some medicines, but to no avail against the irritation and pimples on her scalp. She said, “one pimple would go down and another would go up”. Finally, she went to one of the village pharmacists and he gave her medicine that worked, “red medicine” or Mercurochrome.

The pharmacists may also be taken up as a short-term recourse for a patient with a specialised problem that a village doctor cannot solve such as eye or teeth troubles (optometrists and dentists are not yet easily accessible in rural India). Shindo, preferred medical treatment from better-qualified doctors on the nearby city of Jullunder and would visit Bhinder the village pharmacist because she found him to be the most qualified of the practitioners. Pharmacists are a varied group who may be consulted either to fill a prescription or give a diagnosis. I interviewed 3 pharmacists³⁰ and chose to not focus on them too much as they were not sought out very frequently by the people in my fieldsites. They preferred to visit a medical practitioner who lived nearby or one who had been a family doctor for several years.

When rural Punjabis visit a medical practitioner, they seek a remedy for their illness, which is understood to be most effectively provided by medicines. The reputation of doctors is closely intertwined with the efficacy of their medicines. Bala, for instance, was complimented as a “family doctor” because of his friendly disposition, but he was also held in high esteem due to the fact that “people get well from his medicines” as Ajit put it. I asked him if Bala always gave out medicines and he responded “This is why you go”. This was echoed by another informant, Raj, who stated, “When people

³⁰ Basically, I asked them the same questions as I did to the doctors.

here go to the doctor, they want good medicine. They want to be well. This is what they want from the doctor”. Van der Geest and Whyte (1989) observe how for many people in the Third World, doctors are often treated as a means to medicines (p.48). I will include some comments from informants illustrating the significance of medications to them.

Once you take a medicine (allopathic) you are dependent on that type of medicine to get better forever. (Aman, male, age 27).

I get sick if I go for more than one or two months without eating medicines. People don't eat medicines quickly enough and that's when they become more sick. (Anita, female, age 50).

People are more modern these days. They visit the doctor quickly instead of waiting for their illness to get worse or trying to cure it themselves. (biomedical/ Ayurvedic doctor).

I often have to give stronger medicines for patients that delay their visit to make up for their tardiness. (biomedical doctor)

Doctors are a means to an end, namely accessing medications more than anything else. Indeed, Punjabis often visit doctors with an idea about their diagnosis and preferred mode of treatment. It was fairly common for patients to go off to the clinic “knowing” that they had a flu or fever which required “X” kind of treatment – usually an injection, which will be discussed in detail in Chapter 3.

Greenhalgh (1987) learned that doctors in India demonstrated “marked personal idiosyncracies” with their prescription behaviour, “Several, for example, prescribed multivitamins routinely to all patients; one treated all infections with an injection of penicillin and prescribed no other infective” (p.308). From my fieldnotes, I learned that one village doctor had a habit of almost exclusively prescribing various painkillers.

Another stated that pills could be given if the cause of the illness was environmental and injections when it was not. For another doctor, infections required a dosage of an antibiotic and anti-allergen.

Medicines seem to be invested with more authority than the doctors themselves. One elderly lady, Chani, who initially thought I was interested in becoming a doctor myself given the topic of my research asked me why I wanted to be one since to her, they were not held in much respect as they are generally under-educated and constantly surrounded by disease. Yet, her unflattering view of doctors did not stop her constant medicalisation of physical symptoms. For instance, one day when her granddaughter's friend examined a mark on her skin that could have been a bruise or a mosquito bite, Chani advised her to get an injection (they scoffed at this suggestion). At another time, Chani had received a small cut on her forehead and was looking for some medicinal cream that she previously used for other skin problems. She could not find it, but made do with a tube of cream used for her great-grandson. Medicine, any medicine, seemed to hold an intrinsic healing function for Chani. Doctors, on the other hand, did not occupy such an exalted status.

Nichter (1989) observes that the pharmaceutical market has created what Bateson calls "schizomogenises", a process wherein "increased consciousness about a medicine (like tonic), increases demand for a product. This...fosters an increased supply which in turn increases consciousness and felt need" (qtd. in Nichter 1989: p.266). The Punjabis' equation of medications with treatment as demonstrated through polypharmacy and high injection use reflects this. The pattern I witnessed for treatment involved taking at least a few pills a few times a day for a few days. Greenhalgh (1987), in her survey observed

that general practitioners handed out an average of 2.9 prescriptions for each patient (p.308). In Punjab, polypharmacy may or may not be combined with injections. If people are not over-medicalising themselves, then one of their neighbours or family members surely is or will be talking about someone else who is. Health is always an uncertain and coveted state and people will do what they can to capture it, however fleeting it may be.

The efficacy of other types of medical technology, besides medicines, were similarly appreciated by Punjabis. During my visit, Chani had visited the city of Jullundhar to undergo an operation for her failing eyesight. When she came back, she marveled to the village at how the doctors, with their operation machines, did not allow her to feel even the least bit of pain. However, doctors, who operated such sophisticated machinery were still held in low regard. Her throng of visitors also concluded that all that was required of doctors was for them to learn how to run the machines, which would then do the work for them.

Certain medical practitioners, such as pharmacy clerks, may also take a similarly casual approach to their work,

Now every medicine comes in prepackaged bottles and strips, all neatly labeled. Do you need a person with a degree or diploma in pharmacology to take the medicines from the shelf or the drawer and hand them over to the customer? Even a high school student who can read and write a little bit of English can do this job. (Kamat & Nichter 1998: p. 784).

My fieldwork and library research (Kamat & Nichter 1998; Nichter 1989; Nichter 1996) revealed that it was quite common for qualified pharmacists to take up more lucrative livelihood while leaving the business of attending to clients to less skilled clerks – such

as spouses or to young men in the neighbourhood, perhaps because they view their job to be nothing more than a prescription dispenser.

Despite the fact that medicines were considered more valuable than doctors, most of them did not occupy an existence separate from doctors. A “fairly wide popular knowledge of pharmaceuticals” (Van der Geest & Whyte 1989: p.349) amongst laypersons did not exist in Punjab³¹. When I asked patients if they ever kept medications at home for personal use (and, I hoped for, novel uses –which would require some knowledge about the given medicine’s properties), many of them remarked that they did not because they were concerned about the expiration date. Also, the medicines are given in excessively anonymous form – a few days supply of several pills wrapped in squares of newspaper or in a mini-plastic bag. This made it difficult to know the name of the medicine and its uses. Further, even basic items such as bandages and ointment were usually obtained from the doctor as needed. Doctors, as a means to an end, were a necessary, crucial step to medication. Patients could walk in announcing their desired treatment (i.e. “I would like an injection, I have a cold”) and doctors complied.³² To no surprise, pharmaceutical sales representatives do their best to capitalise upon their status as medicine distributors.

To learn of the newest developments in the field of medicine, village doctors relied upon monthly or weekly visits from pharmaceutical sales representatives who would update them by dispensing samples of the latest medication. Gifts, ranging from calculators to vacations, are frequently handed out to doctors all over the world as

³¹ The Abron of the Ivory Coast, for example, keep empty tubes, bottles, inserts of pharmaceuticals so that they become more familiar with the names and uses of the drugs. For them, doctors, are an obstacle to medication (Van der Geest & Whyte 1989: p. 348).

³² Doctors satisfied patients on their own terms as well, i.e. through placebos.

incentives to prescribe particular brands (Medawar 1978; Silverman 1982; Melrose 1982; Chetley 1990; Nichter 1996; Van der Geest & Whyte 1989).

The costs for treatment varied according to the economic status and ailment of the patient with the latter dictating the type of medication they would receive and for how long. Some doctors said that they did not charge poor patients and others gave credit to long-standing patients. I was never told of an average price although I witnessed most treatments costing between Rs. 20-50³³. House calls usually were more expensive as the doctor had to take the trouble to visit the patients, although some family doctors would occasionally do this for free.

Patients, usually women, who did not or could not visit a doctor frequently resorted to proxy treatment by having their husbands, fathers, or sons visit the doctor on their behalf and obtain a new supply of pills for them. For some women, months could go by taking medication and not visiting a doctor. I recall being sick due to a minor case of food poisoning and having to explicitly state that I wanted to get out of the car to visit the pharmacist (we were on a trip and could not find any clinics) so that I could describe my symptoms and get some medication. Yet, it would not have been unreasonable for me to stay in the car while my uncle went across the street, presented my symptoms and obtained medicines for me. It probably could have been the same pills that I would have gotten for the pharmacist only asked a few questions. He did not take my pulse or check my temperature.

There were some general patterns amongst the Jat Sikh Punjabi patients with regards to health treatment. Women consulted doctors or obtained proxy treatment more frequently than men, but it was not unusual for a man to visit the doctor. Seniors,

³³ Rs. 30 (rupees) is equivalent to \$1.00 CDN.

probably because they were sick more frequently, required more health treatment.

Seniors also had a greater awareness of *Desi* medicine and would use some as preventative treatment (i.e for digestion). Those that were chronically sick, whether young or old were the ones that made use of every available health option.

From this portrayal of medical systems, medical practitioners and medications in a village setting, we see the extent to which biomedical pharmaceuticals form the main repertoire of the patients' health-seeking experience. Indigenous treatment systems must compete with biomedicine for immediate efficacy. This means that it is quite often dismissed or used only when it can address an ailment that biomedicine cannot. Quick cures remained an important priority for the villagers. From my informant's accounts, the most effective treatment for immediate functional health were injections, which will be discussed in the next chapter.

CHAPTER 3

USES AND ABUSES OF MEDICINES: INJECTIONS IN RURAL PUNJAB

Injections are a casual medical practice for rural Punjabis motivating many of their visits to the doctor. I found them to be a compelling medical practice for two main reasons. One had to do with the fact that they were one of the few medical practices which were self-administered with some users keeping a personal supply to use outside the doctor's guidance. What I soon discovered was that such users took injections not as a means to health, but for mental and physical stimulation, which led to adverse effects. When I discussed this type of injection use amongst the other villagers, they would bring up other types of illicit stimulants that Punjabis were taking with increased abandon. However, more often than not, injections were administered by the doctor and used for common ailments such as colds and various aches and pains.

It is my first week in Punjab. I am going for a walk with my cousin Kirin. We are baby-sitting a raucous toddler and see an 8-year-old boy climbing onto a tractor heading out of the village. About 20 minutes later, he returns and we see him energetically running down the road towards our direction. Kirin asks him, "Did you go?". She informs me that he had gotten a ride to the doctor's clinic and had just received an injection for his cold. I am confused because he seems so energetic; he went to the doctor alone; and was able to get an injection so quickly. If doctors are so unqualified like everyone tells me, why are kids allowed to visit them alone? If he "only" has a cold, why is he taking such a risk and getting an injection? I wonder if he is being pumped full of stimulants and wonder if this is why Indian doctors are mistrusted.

A few weeks later. I am interviewing Bala, a village doctor, at his clinic one morning. A male patient in his late twenties came in with a cut on his finger. He wants an injection. Bala offhandedly asks "Do you need it now?" while rushing across the open area between his clinic and house to answer the ringing telephone. The patient begins talking to my uncle, Harjit, who has accompanied

me to this interview. He mentions how so-and-so died from getting a cut from a piece of steel on his foot. This is why he wants an injection. I understood his story as having to do with him wanting something like a tetanus shot. Bala returns from his phone call. He seems reluctant to give this patient an injection - he asks him again if he wants one. Bala has packets of liquid solution (packaged like shampoo samples) holding about 5-10 ml of fluid and separates one from the other. This was my first encounter with an injection. My notes read: "What is tika (injection) a generic term for? Glucose = tika?"

The patient prepared himself for his injection by asking he could sit and then seating himself on a wooden chair in the middle of the clinic with his sleeve rolled up ready for an injection. Bala poured the solution from the public glucose packet. It was handled and readied behind the curtain which enclosed a private space with more medicines and a counter for patients to lie down on. Bala came back out and asked "Do you want it on your arm?". Amidst conversation, another patient lurking at the entrance, and Bala's family going through the clinic to their house and greeting me, "the girl from Canada", the patient receives an injection in his left arm. Patient then asked if the needle was in – had he really received his injection? Bala laughed and said, "Yes. Haven't I been doing this for twenty years?"

An elderly women is speaking of how her blood pressure had suddenly rose – this she found out after taking having her blood pressure rate taken. She got an injection for it. Today she went to the doctor again and got two more injections.

Bala: (after I have witnessed him giving several injections during the course of our interview) "Be sure to write that people here love getting injections!"

Aman: "In India, you are guaranteed of receiving an injection".

Gurmit: Mandeep, be sure to write this, even people as educated as Mukkhan, [a science teacher holding a Ph.D] still go to the doctor asking for an injection for their cold".

As the reader may surmise, injections are a favoured means of treatment in India but also the world over with 40 million people in the world being administered one each

day (Bezbaruah 2001: p.18). Injections are a privileged means of treatment in Punjab for health conditions ranging from colds to blood pressure (*BP*). I was also quite surprised to learn of their other uses, most notably how they were used to ingest *smack* (related to heroin) and other substances, such as pharmaceuticals, to bring forth an altered state of being. This other aspect of injection use will be further discussed later in the chapter.

Many factors account for the extreme popularity of injections in the Third World. Reeler (1990) theorises that, in some cases, injections are preferred because they symbolise modern technology, while in other instances they evoke traditional practices such as body piercing rituals. Moreover, injections, in particular, may be favoured because they, unlike other medicines, “visibly cross the body limits with the needle”; and can be understood as conjuring the help of “powerful outside forces” - such as Western medicine (p.1123). In Punjab, injections did not invoke indigenous treatment patterns, at all: they were not orally consumed, rather they were injected on various parts of the body. They were not self-administered either as it is a substance that the doctor must provide. This contrasts greatly to traditional medicine practices in which medicine would be prepared in the household and usually eaten. Instead of being shunned as a Western treatment, one can argue that injections may be sought out precisely for this reason.

For the patients of Punjab the primary appeal of injections lay in the fact that they allowed for direct entry of medicine into the bloodstream, which permitted the effects of the medicine to be more quickly felt. This seemed a popular option amongst Indians in other regions as well. Burghart (1988) writes how, according to local Biharian (north-east India) belief, injections provided the most effective way to experience the benefits of penicillin, which was a popular antibiotic in the mid-1980s because, for them, ingesting a

tablet was an option reserved only for the very weak and for infants. It would take at least one day for the penicillin to “cook” and make its way through the digestive system towards the illness (p.292).

The reasons behind injection use were varied. One young woman I interviewed stated that she preferred injections because of their convenience: “They would only have to be taken once and then you don’t have to think about it again. Pills, you have to remember to take them a few times a day”. She also enjoyed the experience of injections, for her, “felt nice”³⁴. For one informant, a senior woman, injections were attributed with strengthening properties allowing for the maintenance of functional health: “With injections your weakness is cured” and she regularly received injections three times a week. Injections were appropriate for some conditions, but not for others: one informant found injections to be best for stomach aches and colds, but not for headaches.

To be sure, injections were not a preferred means of treatment by everyone in rural Punjab. Children, in particular, found injections to be quite traumatising and I would sometimes hear their elder siblings or cousins threaten them with injections: “if you don’t be quiet, we will get you *tika* from the doctor”. Gurmit, a teenaged girl, had a great fear of injections and avoided doctors as much she could. For these people, convincing family members and the doctor that they do *not* want an injections formed a significant part of health-seeking experience. One mother in her mid-twenties informed me that in the cities, health care was more developed with doctors who did not rely so much upon injections. In the villages, few had time to go into the city for every episode of illness.

³⁴ For a discussion of how medicine can be a source of pleasure in addition to healing, see Farquhar 1994.

Village doctors themselves had a number of reasons for providing injections. For some, they allowed for increased patient compliance as it enabled them to control the amount of medicine transferred into the patient's body. One doctor from a neighbouring town near Malladah argued that because government hospitals were debt-ridden and lacking resources to provide adequate care for patients, injections were a short-term recourse enabling health. For doctors, injections may be a profitable treatment to dispense (Reeler 2000: p.139). Also, in a private healthcare setting, doctors may also be put under great demand to provide injections as they rely on the continued business of satisfied patients:

An elderly woman comes in while Bala is dealing with another patient. She seats herself on a bench. When it is her turn, she stands up, complains of a rattle in her throat and says that she needs an injection. Bala goes behind the curtain to retrieve one. She tells him that she had just eaten a pill that he previously prescribed to her before visiting him today. He asked her if she wants the injection in her arm. They go behind the curtain to administer it. She seems to be a regular patient and is given the same medications as before. He gives her a few loose pills that he puts in a mini plastic bag. She is charged 50 Rs for her injection and pills. During the 45 minutes that I was there, a couple came and the wife received an injection, a man with "low-temperature" came and did not get an injection, and one other older female patient came in complaining of a backache and got an injection. It was this point that Bala turned towards me and said, "Be sure to write that people here love getting injections!"

Historical Background

Injections were first introduced to India on a large scale from vaccination programs to address the threat of cholera and plague epidemics of the late nineteenth century. Arnold (1993) notes that vaccines allowed biomedicine to extend its influence past the enclaves to the general population (p.135). Thus for much of the population,

injections became synonymous with biomedicine. This had to do with a number of factors. One was that the portable small nature of medicines (Geest & Whyte 1989: p.350) such as vaccines allowed for them to be widely and easily transmitted. Vaccinations were taken up with great purpose by the colonial state as it was a technique that created certain diseases³⁵, especially smallpox, as a solvable problem. A demonstration of the competence and care of the colonisers was important,

For a regime but recently established by force of arms...vaccinations offered a welcome opportunity to give “fresh proof” of the East Indian Company’s “humane and benevolent” intentions toward its subjects, “an additional mark of the fostering of care of the British Government in India” (Miller qtd. in Arnold 1993: p. 135-136).

Material gain was an important rationale underlying the promotion of vaccinations in the domain of public health. Arnold (1993) includes the thoughts of one British administrator,

In a country where the state derived so large a share of its income from the cultivation of land, “every life saved,” he reasoned, “is additional revenue and an increase to the population and to the prosperity of the Company’s territories in an incalculable ratio” (p. 136).

The task of rendering vaccines as a viable option in India was not easy due to a lack of resources and a great deal of resistance exercised by a significant proportion of the Indian population, “An exotic, without root on Indian soil, vaccination long remained closely identified with foreign rule, attracting fears and suspicions that ranged far beyond doubts about its medical efficacy” (p.157). The reception of vaccines was mired in much

³⁵ Such as smallpox, other diseases such as the plague remained beyond the expertise and control of the British (Arnold 1993: p.120).

controversy on issues such as the transmission of polluting body fluids³⁶ and the careless manner in which they were injected³⁷. In North India, compulsory vaccination was met with such great hostility that rumours of it taking place set off scares and threats of disturbances in New Delhi in 1870-1871 (p.155). Acceptance of vaccines, like other aspects of biomedicine, occurred (p.158) only gradually and was facilitated in large part when biomedicine was practiced and represented by Indian doctors.

The popularity of injections was quite apparent in my fieldsite. Before I had even gone to the field, I heard many stories about injection use in India. My parents recounted how the unqualified doctors of Punjab used injections to cure almost anything and neglected to follow any sort of standard procedure for cleaning these needles. While in the field, I witnessed people receiving injections for ailments ranging from colds, flus, nausea, and backaches. An injection was not necessarily used to transmit vaccine or even penicillin³⁸ (which is little used nowadays according to the doctors I spoke to). Popular injectionables seem to be antibiotics and antihistamines along with glucose and steroids. In Punjab, the use of injections is basically undisputed and has become an important component of the patient's therapeutic encounter. The vignettes provided at the beginning of this chapter illustrate the space it occupies in patient's lives.

The over-use of injections brings up two dangers. One is that the patient may be given "useless"³⁹ chemical substances by the doctor, such as glucose. From my interviews, I learned that patients quite often did not know what medicines they were

³⁶ the smallpox vaccine was transmitted arm to arm of children from Baghdad to Bombay, p.142

³⁷ These concerns were brought up at council meetings in 1906, when medical attendants commented upon the long scratches injections were making on children's arms and "hacking to pieces" the bodies of babies. To address such problems, trained medical personnel were required to supervise the vaccinators (Arnold 1993: p.278).

³⁸ Burghart's article, "Penicillin: an Ancient Ayurvedic Medicine", discusses the popularity of injectable penicillin.

³⁹ I problematise this term in recognition of the placebo effect of injections.

being given, they had no idea what to expect. The Punjab Health Systems Corporations, a World Bank-funded hospital construction project, has been accused by the Punjab Civil Medical Services Association (PCMSA) for distributing sub-standard anesthetic injections to hospitals. The article does not describe the situation in great detail except to say that it has led hundreds of patient to suffering. This incident led to the PMSCA issuing a statement saying that there are “serious loopholes and flaws” in the way in which the Punjab Health System Corporation works. They are now trying for a probe by an independent agency to expose illicit deals that could be taking place with this project. The PMSCA is also urging registration of criminal cases of the manufacturers and distributors responsible for the purchase and supply of sub-standard medicines to hospitals (Tribune News Service 2000). Reeler (2000) brings up how women in Thailand and Pakistan may visit health centres with vague complaints and receive injections containing Vitamin B which they interpret as being the best form of medical care.

Other dangers to injections have to do with the cleanliness of equipment. The *Bulletin of WHO* reports that the level of unsafe injections in India is at 50% and is aggravating the Hepatitis and AIDS crisis (Jayasekera, 2001, ¶ 9). Reeler (2000) maintains that cases of Hepatitis B and C may have been transmitted to millions from unclean injections in the Third World (p135).

In India, about eight million people are infected from re-used needles every year. Sterilisation of syringes by putting them in boiling water or in alcohol - as a matter of fact is not the solution - it is the cause of the problem; the *Indian Union Ministry of Health and Family Welfare* states that improper sterilisation leads to further infections because many syringes are inadequately sterilised (Bezbaruah 2001: p.18). In response to this,

WHO, United Nations International Children's Education Fund (UNICEF), and United Nations Population Fund (UNFPA), are campaigning to have nations switch to "auto-disable" (AD) syringes which may be used only once before the plunger becomes jammed. It has recently become available to the Indian market in specific sizes which allows for the exact dosage of medicine to be administered. The drawback is that they are expensive for the Indian population at Rs. 3-5 per syringe and non-biodegradable (p.18).

Alternate uses of injections

When people in Punjab inquired about my topic of research, I responded that I was interested in researching people's medical habits and learning why people got injections and took medicines. Gurmit, upon hearing this, informed me, "In my village, we have someone who injects himself at home". "What a find!" I thought. I recalled Haak's (1988) article that discussed self-injections of antibiotics in rural Brazil. If this young man was injecting medicines into himself, then he probably had a great deal to say about disease and healing and might be able to provide me with information on creolisation of medicine and opinions on Indian and transnational medications. In reality, what I encountered was far different. While this neighbour of Gurmit's, Khan, did inject medicines into himself, he did not do this in order to become healthy. He did so obtain a particular bodily sensation, or, for a *nishan*, "to get high". According to Surjit, who lived in the same household, Khan, could not afford to inject himself with *smack*, so had to resort to allergy medications.

The idea of young men⁴⁰ injecting such medications seems strange indeed until one examines the spread of illicit drugs in India over the past twenty years or so. Dorabjee & Samson (1996) report that in the early 1980s, a substance called “brown sugar” (heroin) made its way into India and displaced opium and cannabis as it was initially much cheaper. This resulted in a price increase, which, in turn, led to an upsurge in criminal activities and then to the establishment of detoxification centres to rectify this addiction problem. These centres used a drug called Buprenorphine (in ampoule form) to manage withdrawal symptoms. Its cheap price and easy availability from medical supply stores made it a popular alternative amongst drug users. By the early 1990s, an injectionable form of this drug emerged facilitating the spread of the addiction to the cities and towns of South Asia. To prolong the effects of this drug, injection users began to add Pheniramine and Promethazine and Diazepam. This has great danger for injection-related diseases such as HIV, HBC, HCV (Drorabjee & Samson ¶ 1-4).

It took me a few attempts before I could interview Khan as he initially felt shy (which, in turn, made me more nervous about interviewing him) and then tried to deter me by requesting money for the interview. I was discouraged from giving him money, as it would be highly improper (he was my neighbour, my *bhaji* [brother] and Gurmit told me he would use it on drugs anyway). Nonetheless, some part of him was willing to speak to me evidenced by the fact that he saved packages of his drugs to show me. I interviewed him on an afternoon with a group (me, Khan, Surjit, Gurmit) sitting in the common room (with the TV and beds) while the children and aunts of the household attended household matters. He spoke abruptly throughout the interview.

⁴⁰ Some young women also engaged in illicit drug use such as injections, smoking cigarettes, and drinking alcohol (in Punjab, it is men who may drink), however these women are usually from the city and/or college students.

He started off showing me his drug kit, which contained three different allergy medicines (Pheniramine, Noropon, Phenimone) and a few injection needles of different sizes. He said he gets his needles from a shop selling operation supplies. He also had a nurse friend who was able to obtain various drugs and needles for him. He stated that he needed “fitter” needles as he was getting thinner and thinner. As for the allergy medicines, he used different combinations of the three: 6 ml of Pheniramine, 1 ml of Noropon, and 3 ml of Phenimone.

I inquired about the effects of these drugs and he replied that after taking his dose his heart rate went up, his legs became restless, and he felt angry and violent – like he wanted to hit someone. Surjit said that he became more active and talkative. He had a tendency to pick things up and put them down somewhere else. Many objects in the household had been lost this way. Certain items that he liked to fidget with, such as nail clippers, were kept locked up – he would surely misplace them otherwise. According to his family members, he becomes irritating after shooting up with these drugs. He “eats everyone’s head”⁴¹ meaning that he asked many pointless questions and could not keep quiet. As a result, the (female) household members tell him to go to the farm while the people tell him to go back home. Khan complains that he has no place to go to. Consequently, he ends up biking around the village and spending time with other boys who are also injection users.

He used to inject ten times a day and now only takes one dose a day: half a dose in the morning and half in the evening. Injections remain a central fixation for Khan, taking up the majority of his time and energy. Surjit said that he spends up to an hour in

⁴¹ In North American English, it would be the equivalent to he “gets on everybody’s nerves”.

the bathroom when injecting (Khan denies this and says he only spends fifteen or twenty minutes). He said it takes him about five tries to succeed in getting his injection.

When I inquired as to why people injected, Gurmit replied that it was to display their wealth. She stated that this is how one male, Jeeta, who was addicted to *smack* convinced others, including Khan, to take it. Gurmit, who was related to him was, quite knowledgeable about the schemes Jeeta pulled to get money told me that he had taken up injections and *smack* after he started managing large cash transactions from his brother who had immigrated to the UK and remitted sums of money to his family back in Punjab so that they could build a large Western-style house, purchase farm land and farm machinery. Jeeta was the one who would go to the city and pick up the money. Apparently, the regular access to large sums of money proved to be too much of a temptation and he eventually began to pocket some of it and spend it on items that he could not otherwise afford, such as *smack* (and expensive clothing). He would also take advantage of an elderly uncle and regularly request money from him.

Aside from alcohol, recreational drug use, as we know it in North America with young adults smoking marijuana or taking Ecstasy as leisure pursuits, does not exist in Punjab. The men that I saw or knew of with injection problems were completely entrenched in their habit. They were described as passing their days fixated on their next dose. Their moods and conduct were attributed to their drug use and they acquired reputations for being lazy and ill-mannered.

The reactions of the drug addicts' family members ranged from various types of denial to concern. Surjit said that whereas before Khan had been handsome and strong and had looked like a famous Bollywood actor, he had now become excessively thin and

wore a rope to hold up his pants because belts were now too big for him. Although he had a troubled childhood and had smoked cigarettes since the age of eleven, nothing had damaged him physically and mentally as much as injections. I noticed his hands were incredibly swollen – it looked as if it would be painful to close them. He had to inject into his wrists because it had become too difficult to coax a vein from his forearm (he uses a belt to do this). Quite often, the parents who had sons with a penchant for excessive drinking and drug use would try to send them abroad to the West with the hopes that they would spend their energy working and sending remittances home while making better lives for themselves. More often than not, these men would end up spending their wages on their Western lifestyle (cell phones, furnishings) and squander their money on drink and drugs. Sending them abroad also allowed the family of the deviant son to save face as the sons would no longer cause a commotion in the *pindh*.

There is a great stigma attached to addiction of any sort in India and treatment for injection drug users is not well-developed. Khan, stated that in government hospitals, the addicts are tied up with chains on their feet and denied a full dose of the medicine. They were gradually weaned off it in this way. Treatment in a private hospital cost between Rs. 10 000-15 000. There was one in the town a thirty-minute bus ride from Malladah. In this hospital, injection drugs were replaced with oral drugs, they gave a substitute medicine to replace the one the addicts used and their dose was gradually cut down. The injection drugs were replaced with oral drugs. Once they were released from the hospital, they were given two weeks worth of medications for home treatment. The entire process took about two months. Khan once went off for two months. He (and other lay informants), have said that to be completely cured, the patient's blood needs to

be changed. However, even then, this is not necessarily a guarantee of overcoming the addiction.

One biomedical doctor I interviewed, Dr. Singh, spent his time working on a project that dealt with drug addiction amongst college students in Nawashar. He cited drug addiction, along with diabetes and cardiovascular diseases, as one of Punjab's new health problems. When I asked what sort of substances they were addicted to, he listed,

Analgesics, anti depressants, injectionables, cigarettes and opiates. These are freely available, they are not always cheap, but they can always obtain them from the chemist {pharmacy}. Also substances such as boot polish and Iodex [similar to Vicks Vaporub) are sniffed or eaten. One college stopped selling Iodex because the students were abusing them. There is large prevalence of drug problems. Why do the youth do this? They have an inferiority complex and taking these drugs makes them feel important. To treat them, there are detox centres available and psychiatrists.

It is difficult to determine how effective such treatment is. Professions such as social work and psychiatry are not well-received in a rural Indian culture where "saving face" is paramount. Psychiatry is a relatively new medical profession in India and seeks legitimacy by catering to patient expectations which means that treatment such as polypharmacy, electroconvulsive therapy and the like are given out much more than necessary (Nunley 1996: p.165). Medication assures patients that their problems are being taken seriously (p.178), indeed, the more pills, the better. The value of "non-medical" treatment (i.e. verbal, therapeutic) is still unrecognized. Patients are only taken to a psychiatrist when there is a physical disorder along with their psychological problem. These professionals are underpaid and rely on word of mouth of satisfied patients to continue business (p.180 -186).

In any case, despite the numerous interventions, Khan still takes injections. This requires money and his family has no choice but to fund his habit. They give him Rs.10 a day, which was just enough to buy a dose of medicine. He threatens suicide and uses emotional blackmail to obtain money. Without his minimal dose, he becomes very physically agitated. His sister recounted one incident in which he went without and could not get up off the floor and was very dehydrated. All they were able to do was to provide him with bottles of water and hope he would not get any worse. He only has dramatic solutions for himself, most involve some variant of moving to the West and having a woman take care of him to “set him straight”. He makes no secret about the fact that he feels like he is going to die soon if he remains the way he is. I know of another man in his late twenties who has been addicted to opiates for the past five years or so, he is now experiencing numbness in his legs and circulation problems. For injection users, solutions are not apparent; perhaps it is the development of such ailments which will make such drug users reconsider their habits. What is required is a more committed acknowledgement of these problems by health authorities so that more effective solutions that cover both the physical and behavioral aspects of addiction can be initiated.

Modern Life and Drugs

Surjit informed me that injecting amongst young men, or “boys”, had become commonplace for the past five years. Khan had taken it up three years ago. She explained that boys who had finished school, but had not yet married have lots of free time on their hands and curiosity about the outside world which they satisfied by

spending time with each other and visiting nearby towns and cities. They usually received a bit of money from their parents for their outings, which according to Surjit, provided them with income to take up drugs. Unmarried girls were prohibited from “roaming around” and when they received money, it was spent on clothes and accessories such as jewelry, nail polish, and hair clips.

With young men such as Khan, it seems like spending their money on injections allowed them to be unpragmatic in a practical society. Rather than being frivolous or useless (like nice clothing or makeup could be), injecting drugs was detrimental and overly expensive. While Kora had to be content having only Rs.10 to spend each day, I heard of how some college girls were denied the same amount of money that they wanted to spend at the canteen on snacks. My daily litre of bottled water cost the same amount, which Chani remarked was expensive. In Punjab, hard work, industriousness, and practicality with money were highly valued. Taking illicit drugs allowed youth to effectively rebel against these norms: they became lazy, sick and dysfunctional all the while squandering significant sums of money. Some Punjabis blamed unemployment for these drug problems, while others like Surjit, thought that it had to do with the laziness of today’s youngsters.

Discussing Khan’s injections with Gurmit and Surjit revealed a strong tendency towards substance-abuse while labouring; it has become somewhat of a subculture in India. Surjit brought up the fact that the young male workers in the auto parts factory, which had opened in Malladah five years ago, also engaged in similar types of injection behaviour. These men did not have the capacity to work hard and had to resort to injections to make work easy and painless. While workers are not overtly encouraged to

take drugs, they were not severely discouraged either. The penalties they suffer are minor: such as not receiving a cash bonus on their birthday⁴² (prizes such as fridges and washing machines were given by factories to encourage wage-labour amongst the villagers). Some substances used by workers included, *dooday*, taken “by people who do a lot of work...who do more than average amount of work” with a variable cost. It is rumoured that a man in the *pindh* died from this habit. Cargo truck drivers are associated with various mind-altering drugs that keep them alert and allow them to drive long distances. They may chew tobacco laced with stimulants called *jardha*, take *opheem* or *dooday*.

Drug abuse in Punjab is on the rise and is affecting the lives of many of its inhabitants. This type of large-scale abuse started in the in the 1980s and early 1990s when farmers, unable to deal with stress and high debts, committed suicides from ingesting pesticides. Tablets used for wheat storage, called Cel-Phos were often the preferred mode of recourse. Bal (2000) writes, that when she was doing her research, “almost everyday one such case of attempted suicide with Cel-Phos [was] admitted” (p.79). Shopkeepers have been instructed to sell such products to mature and responsible patrons only. More recent problems include the proliferation of liquor stores, some of which are opened near schools which makes parents of daughters worried about sending them as there have been cases of sexual molestation reported. Also, poppies are being grown between sugarcane crops in addition to other problems previously mentioned such as steroids being given to workers and increased incidences of drug use (Basu 2002 ¶ 7).

⁴² The mechanisation of agriculture has created a population sector with little or no work who are taking up wage labour in newly established factories of Malladah. Household products such as televisions and washing machines are offered during various occasions as rewards and act as incentives to lure workers. It should be noted that most of these workers are male.

This is a far cry from the image of Punjab with “green fields, happy homes and glowing faces” promised by its Chief Minister (Basu 2002 ¶ 1). Such a portrayal refers to the economic might of its industrial agricultural practices, which supposedly creates a wholesome and happy quality of life for its inhabitants. Rural Punjab, rather than being an idyllic hinterland, hosts more than its fair share of problems associated with modernity ranging from tainted crops, unclean injections and a high rate of substance abuse. Moreover, the situation in rural Punjab is particularly pronounced because the resources needed to address such problems are found in cities.

Injections have become a favoured means of treatment in rural Punjab. Their uses are extremely varied: they are an option for biomedical treatment alongside pharmaceuticals and may also be used for more illicit purposes. In any case, injections are sought out because they are believed to demonstrate immediate or potent effects.

While some types of injections should be encouraged because they are necessary for people’s health and well-being, the problem of “non-useful injections” (Reeler 2000) makes for expensive and ineffective health care and needs to be resolved. Reeler (2000) is aware of the difficulties village doctors have in refusing their patients’ demand for injections and brings up the case of Noi, a well-respected Thai midwife and public health educator. Whenever Noi would refuse to give injections, her patients would feel insulted and get injections from the unqualified rice miller and they would stop participating in her public health education projects. Thus, refusing to give these villagers injections was putting them at increased risk. Noi’s decided that the best solution would be to give her patients injections, which allows her to express her concern for their well-being, but with a request: “I’ll give you an injection if you’ll listen to my health education messages”

(p.137-138). This scenario is brought up because it illustrates the importance of referring to local perceptions of health care and the capacity of medical practitioners to negotiate beneficial treatment. Considering the trusting and amicable relationships my informants had with some of their doctors, a similar type of intervention could be initiated in Punjab as well.

CHAPTER 4

ORGANISATION OF HEALTH CARE AND OPTIONS FOR ACCESSIBLE HEALTH

Case #1:

Ailment: Malaria:

Ajit was feeling sick and went to see Bala first. After a few days, his temperature dropped to a normal level, but he became sick again. He went to the government hospital where the doctor diagnosed him with a ‘fever’ and gave him a few pills. Ajit was still not feeling better. Off he went to Phagwara, a nearby town with a great number of medical facilities. He visited a private hospital and took a blood test. This was how he found out he had malaria. He was given some pills. Now his temperature always stays down, lower than the norm, thus he has low BP, according to his daughter. Now, any illness he has always involves his temperature dropping further.

Case #2

Mihndo

Ailment: Heart attack

Mihndo is a middle-aged women in her mid-50s. One day, just like any other she was conducting her morning tasks and felt an acute clenching constrictedness in her chest. “My heart is in pain” she thinks. She has never experienced anything like this before. When the pain slowly begins to subside, she decides to go visit the family doctor in the nearby village and her husband takes her there on his scooter.

The doctor listens to her description of her ailment and proceeds to give her two injections. She returns home and takes some *jwen* (indigenous herbal medicine) just to ensure herself of feeling better. She has to return to town to purchase a present on behalf of her niece. While walking along the town road, she feels more pain. Fortunately, another trusted doctor’s office is nearby (Dr. Singh). This is the doctor who her natal family, *nanakay*, visits. She makes her way into his office and describes her pain. He checks her heart with his stethoscope and other equipment and asks her “What are you doing here? You are really sick and you should not be walking around outside. You just experienced a minor heart attack”. He kept her lying down on the bed and checked on her every 5 minutes or so while he attended to his other patients. When her husband arrived to pick her up, Dr. Singh, tells him to take her to a (private) hospital in a nearby town. Over there they conduct some tests, draw some blood and confirmed his earlier diagnosis. She returned home for an evening and then spends the next four days at the hospital while they put her through more tests.

Case #3

Chani

Ailment: Allergy, skin irritation and high blood pressure.

Chani has had a long term problem with itchiness on her skin which was interpreted as being an allergy. Consequently, she wore only cotton fabric, avoided detergents and did her best to avoid skin aggravation. However, her skin acted up sometimes and she had recently gone to visit a doctor in the nearby city of Nimbu Balara for treatment. He gave her some pills which were far too strong for her. She took them two or three times a day and suffered an aggravated heartbeat, sweatiness and breathing problems. This led to a few days of hospitalisation with her in critical condition. She was given medicine through a glucose solution and slowly recovered from her bout with overmedication.

Case #4

Ranjit.

Ailment: Various illnesses including tuberculosis.

She has visited every hospital that she was able to afford. First, she had only one ailment, but her body was full of drugs, so the painkillers did not work. She preferred private hospitals because they had cleaner facilities, only, she would go to the government hospital. She was always sick, so for every two months, she would be in the hospital for an average of 10 days. She would visit the government hospital in Malladah and then be referred to a [private] clinic where drugs would be given to her at twice the price. She could have made a [police] case against it, but the drugs provided her with relief, so she had to continue going there.

These vignettes illustrate how patients negotiate health in contemporary rural Punjab and the conditions that facilitate a high intake of drugs, which, as we can see, may lead to acute side effects for some. One informant, the granddaughter of Ranjit, observed,

doctors give many types of medicines that have strong side effects which makes the person weak. Then this requires more medicine. To get these medicines, one has to go to clinics and hospitals – these are sick environments that do not help

the patient. The new doctors have no awareness of the previous problems and they just give keep on giving strong medicines.

Indeed, the side-effects of medicines can prove to be detrimental to people's health.

Health care for Jat Sikh Punjabis is mainly in the hands of private biomedical institutions. This has to do with the fact that, it is the rich segment of the population who prioritise quick treatment for "functional health" (Nichter 1989: p. 238). Becoming well quickly was of prime importance, which was best facilitated through biomedicine. I will describe the organisation of health care institutions in Punjab which makes way to a discussion of economic development in India.

The Development of the Private Sector

Colonial health development created the framework for private health care. As the British wished to divest themselves of as much responsibility as possible and prioritise efforts in areas in which their involvement was absolutely necessary, such as the army and jails (Arnold 1993: p.269) they looked to the leaders of Indian society to propagate biomedicine by funding the establishment of various health institutions and assume responsibility for them. This may have had to do with the British tradition in which

private philanthropy and public charity played a major part in the founding of hospitals, dispensaries and medical schools...[Furthermore] India itself already had a strong tradition of philanthropy and charity, which ranged from donating money and alms to the poor to building rest stops for traveling pilgrims (p.269-270).

For some Indian communities, medical philanthropy was a way of earning favour and status from the British, who were similarly eager to establish ties with India's royalties and elites in order to advance the colonial project (p.269).

Privatisation gradually developed from the establishment of hospitals first from influential Parsi⁴³ families, and was later taken up by neighbouring Hindu and Moslem communities who engaged in a sort of "competitive civic philanthropy" (p.272). By 1865, about twenty-five percent of the costs towards running a dispensary were met by wealthy Indian citizens and by 1890, the government was contributing less than 10% of its costs⁴⁴ (p.270). Certainly it took some time before private biomedical institutions made their way to the rural locales of India. My informants, both medical practitioners and patients state that it was in the 1950s that such establishments made their appearance in the villages of Punjab.

Although there is public health care, private facilities are a more appealing option. Public health care is provided through public or "government" hospitals in which patients currently pay Rs. 10 and, theoretically, see a doctor and obtain their medicines. From my fieldwork, I learned that, quite often, the hospital did not have some of the required medications and so patients visit the pharmacies located near the hospital for medicines that they must pay from their pockets. The waiting time and run for medicines makes a visit to the government hospital a lengthy affair which makes visits to private health care institutions a more convenient option.

⁴³ A small Bombay community, originally from Iran, who had a close relationship with the British built upon mutual favour (Arnold 1993: p.272)

⁴⁴ Even then, promised funding was not always realised.

A recent study of India's health care system conducted by the World Bank and the *Union Health and Family Welfare Industry* of India revealed that the private sector comprises a significant proportion of the health care sought by people (Jain 2000: p.9). Private health care is not limited to rich people, a poorer person may very well go beyond their means and spend money on private health care that is reputed to be of better quality and or more accessible⁴⁵. According to the report, around 80% of the wealthy and the poor seek treatment in such institutions. Other findings:

- 25% of hospitalised Indians slip below the poverty line because of hospital expenses
- hospitalised Indians spend more than half of their annual expenditures on health care
- over 40% of those hospitalised have to borrow money or sell assets to cover costs (Jain 2001: p. 9)

Private health care can be extremely costly for a citizen who is not of the upper class, especially if a chronic disease is contracted. I recall one instance in which a woman in a nearby village had been diagnosed with cancer and, because her family could not afford treatment, she could not seek any care. When patients are faced with illness they and their families have to negotiate how much they are willing to spend and the amount of time they can afford to invest in getting well and hope for the best outcome. For the majority of Indians, morbidity is virtually equated with mortality (p.9). Although Jat Sikhs are relatively better off financially, they must still make significant sacrifices if confronted with a chronic illness. Ajit had spent the past five years growing crops and selling his land in order to finance tuberculosis treatment for his wife. They would argue over where she should go for treatment as she was worried about costs while her husband

thought that they should take the best treatment they could afford. Such negotiations loom uncomfortably for patients located in a privatised health system.

While the Indian constitution portrays the nation as a welfare state with the government obliged to support health care centres, over the past fifteen years, it has had to focus its efforts towards economic, rather than health, development. After Independence in 1947, India supported economic policies to alleviate poverty and create infrastructure that would render it a self-sufficient nation. However, by the late 1980s, India's growth rates were lagging and the nation required a loan from the International Monetary Fund to stave off financial crisis. The loan was given on the conditions that the currency be devalued, the foreign trade sector liberalised, subsidies be cut, and various industries be privatised – including health care (Mankekar 1999: p.744). The late 1980s directed 80% of the nation's health expenditure towards the private sector (Chatterjee: 1993: p.365-366). Whereas in 1990, health investment formed 1.3% of the GDP, it dropped to about 1% in 1999. There are plans to raise to 2% of the Gross Domestic Product by 2010, yet it still falls short of the World Health Organization recommendation of 5% (Kumar 2001: p.66). From 1992 onwards, there has been no expansion of healthcare services aside from the implementation of the Punjab Health Systems Corporation, which will be described further below (Gill & Ghuman 2000: p. 4474).

The World Bank in Punjab

Health development policies in Punjab increasingly favours privatisation. While the World Health Organization has attempted to support “cross cultural studies on health topics” (Kalekin-Fishman 1996: p.812), the neo-liberal economic policies of the 1980s, have undermined their goals. (Zwi 2000: p.167). Since this time, the World Bank (WB) has become the major player in the field of health development. The WB maintains that it has elevated the profile of health-related issues on “international and national development agendas, which has resulted in greater flows of resources to the sector, and have focused attention on critical issues such as financing, priority setting, and systematic reforms” (Buse & Walt 2000: p.177). Implicit in this statement is an assumption of a positive (albeit problematic) relationship between wealth and health.

The WB has been keen on developing the private sector of health care in India through units such as the Punjab Health Systems Corporation, which draws upon public and private resources to fund healthcare. Baru and Jessani (2000) are quite sceptical about the promised benefits of privatisation, they remark that the U.S.A. has an evenly distributed and highly regulated private health care system that remains inaccessible to the more marginal sector of its population. This drawback might replicate itself in India. More importantly, they ask, why should developing countries be encouraged to establish private health care when the West is heading in the opposite direction and appealing for “greater state intervention”? (p.184).

The business culture of the WB orients its activities towards loan expenditure and “quick process-oriented results” that require minimum commitment (Buse & Walt 2000:

p.178). This organisation's focus on the "most prominent health problems for which cost-effective solutions are available" means that health conditions that are economically practical to address, such as AIDS and tuberculosis, are given attention more than pressing chronic health problems facing India such as malaria (Baru & Jessani 2000: p.183). Most-frustrating about the WB is its lack of external evaluation or self-analysis. The WB's Operations Evaluation Department reported that one-third of its health projects were deemed "unsatisfactory". Buse and Walt (2000) note that most of these projects shared similar problems which makes it logical to conclude that either the project managers did not learn from past mistakes or that the structure of the Bank did not allow for change (Buse & Walt 2000: p. 178).

With regards to development and health, currently, the most controversial issue in Punjab is the World Bank-funded *Punjab Health Systems Corporation* (PHSC) (Gill & Ghuman 2000: p.4474) created to compensate for state deficiencies in health care provisions. In the mid-1990s, the World Bank had given Punjab a loan to initiate the PHSC, which was supposed to "promote transparency, accountability, and efficiency in the health care system...and pay significant attention to the needs of the women and the poor". According to Insaaf International, an Indian organization working for rights of marginalized people, particularly women, the World Bank is more focussed on establishing fee-oriented healthcare. The bureaucratic overlap that has the secretary of Punjab's state *Health Department* acting as the chairman of the PHSC creates a mixed set of priorities between the state government and the Bank (Light 2000).

The World Bank seeks to promote fee-based service through implementation of user fee charges. In Punjab, whereas once services were free, there is now a user fee of

Rs.10 for admission. Poor citizens may be exempt from user fees, but they must first purchase a 'yellow card', which brings its own set of problems. First of all, many patients are not aware that a yellow card exists. Second, the long process of obtaining this card deters many. Third, the amount of yellow cards is limited and many are purchased, through bribes or the black market, by richer people (Multinational Monitor ¶5). Insaaf International notes that two years ago, in a city of 270 000, only 44 yellow cards had been distributed. Such exemptions have been unsuccessful in Mali, Zimbabwe, and Ghana, where similar fees have been imposed (Baru & Jessani 2001: 184). Dr. Gupta, a physician and general secretary for Insaaf, states that the World Bank is undermining the role of government hospitals by locating private institutions alongside government-run services making for confusing situation amongst healthcare users who are unsure about the distinction between these services (Multinational Monitor ¶ 7).

The PHSC ignores the problems faced by state-run hospitals and instead are concentrating their efforts on building new health care facilities and installing equipment in previous ones. This leaves pre-existing rural hospitals in short supply of basic medical supplies (Gill & Ghuman 2000: p.4474). Moreover, there is a focus on creating curative-based secondary health services rather than integrated primary health care, which "recognizes the link between socio-economic development and health outcome" (Baru & Jessani 2000: p.183). This is particularly important in Punjab, we saw in Chapter 2 how the inhabitants were affected by ailments stemming from the immediate environment that would be more appropriately dealt through preventative, rather than curative, means.

Insaaf admits that there has not been much motivation on the local grassroots level with regards to establishing better public facilities and hope to create it as an issue

that will be taken up by its citizens. I see a great gap between the objectives of Insaaf and the health care priorities of the average Jat Sikh. From conversation and interviews, I learned that villagers see government facilities as being slow, inconvenient, dirty, and handing out “second-rate” medicines. Making government hospitals more accessible by increasing their numbers and resources may be of great benefit to poor patients but higher income segments will probably continue to frequent private practitioner for quotidian illnesses. When faced with chronic disorders, Jat Sikhs do seek out other options and government hospitals certainly will be one of them. For this segment of the population, addressing the problems of inappropriate treatment, such as overmedication, by under qualified practitioners for common ailments such as colds, flu, physical soreness, rashes might be a more appropriate starting point.

CHAPTER 5

CONCEPTUALISING MEDICINE AND ILLNESS IN PUNJAB

There is no one method to approach the subject of development and health. Just as patients pursue a variety of means to become well, the options available to promote accessible and effective health care vary greatly. I will review a few strategies that may be used to promote various types of health education.

Development from bottom-up, which uses local perspectives as a reference, is a necessary starting point requiring careful and cautious planning. A WHO *Traditional Birth Attendants* (1979) manual encourages organisers to spend time in the villages in which they will be working and partake in discussions with “village elders” to better learn the social context of the community (p.23). However, one wonders how adequately these “village elders” can represent the needs of their community. It must be kept in mind that cultures are not homogenous units; variables such as ethnicity, caste, class, and gender must be considered when devising participatory projects. MacCormack (1992) observes that the sexual division of labour creates different needs, for instance, “women carry water and deal with children’s diarrhea, therefore they tend to give higher priority to improved water supply” (p.834). It is essential that different sectors of the population be adequately represented, especially the more marginal, who will, in all likelihood, have more health problems and stand to benefit from participatory health development projects.

To illustrate local perspectives, I will elaborate upon the Punjabi’s conceptualisations of medications and health within the context of a changing capitalist

rural environment. In this section, the manner in which villagers' negotiate health and negotiate a modern agricultural lifestyle will be highlighted.

Medicines

In Punjab, the term "medicine" can be applied to many more than pharmaceutical substances for health ailments. In fact, medicine refers to any number of chemical and synthetic substances. This is not particular to India. An ethnographical example from "The Power of Medicines in East Africa" (Whyte 1989) reveals that in Eastern Uganda, medicine can be used to treat a variety of ailments affecting any person or thing, Whyte observes,

To transform an ordinary dog into a good hunting dog, medicine (not training) had to be given. To get a good cash crop, 'cotton medicine' (DDT) was sprayed on the plants. In the Nyole language, one can speak of 'bicycle medicine' (the rubber cement used to patch tires), sorcery medicine..., as well as curative hospital medicine'...and African medicines....(p.218).

Medicine is a "broad semantic category in many African languages". The Nyole seem to understand medicine as being a transformative substance in and of itself without any reference to "morality, relationships and intention" (p.218).

Punjabis share a similarly broad but slightly different understanding of medicine or *dwa*, which refers to various types of synthetic chemical preparations. If somebody is sick, they need *dwa*. The water is treated with *dwa* (i.e. sterilisation treatment) in the village tank to be drinkable. Crops are sprayed with *dwa* (i.e. pesticides, insecticides). The floors are swept and washed everyday with water that has *dwa* (i.e. cleanser) in it.

This categorisation is also apparent in the Indian Ministry of Chemicals and Fertilizers which is responsible for the regulation of chemicals, petrochemicals and pharmaceuticals. Their goals are to establish India's economic might on an international level: "[c]hemical industry continues to march ahead in the post reform period at a pace that outstrips all other industrial activity" (Bhawan 2003). This chapter illustrates how the villagers are finding themselves in a "chemical society" as these substances negate, maintain, and provide health.

While "medicine" is a term that categorises the previously mentioned domestic and agricultural chemical products, it undergoes specialisation when it comes to medications. health properties are discussed –medicine is not just "medicine"..., they are distinguished. A pill is called a *gohlie* which comes from the root word *gohl* meaning "round". The liquid medicines, syrups and such, are simply referred to as *dwaas*. An injection is called a *tika*.

Metaphors were used to describe the side effects of medicine. The most common side effect of medicine was the how *thaaaj* it was. I understood it as meaning "fast" (i.e. speedy, like a car), and thought that such medicines must cause hyperactivity or a caffeine-style stimulation. Surjit, told me that all Indian drugs are *thaaaj*⁴⁶ and I pictured people being over stimulated. However, as I spent more time in the field, I learned of the different contexts in which that word could be used. Precocious female personalities were described as *thaaaj*; an article of clothing in an excessively bright colour was *thaaaj*; strong affective spices were *thaaaj*. One woman described her medicines as being so *thaaaj* that she could not get out of bed that particular morning.

⁴⁶ In Gujarat, powerful medicines are described as being "heavy".

Perhaps, *thaaaj* may be understood as meaning potent or “uncontrolled” if we consider an adjective used to describe ineffective medicine: *haalkai*. In everyday use, this word means “light” in terms of weight or substance, (i.e. a suitcase may be *haalka*⁴⁷ if it contains little luggage). When I interviewed a woman in her forties about the doctors she visited, her husband who was nearby, described a certain doctor we were speaking of as having *haalki*⁴⁸ (ineffective) medicines. He stated “*Pindh* (village) medicine is just *halkee* (light) medicine. This is why it is so cheap”. When I interviewed Raj, a middle aged man who was mayor (*panch*) of his village, and brought up Ayurvedic medicines, he responded that Ayurvedic practitioners were *haalkai*, meaning that “they were not able to cure, they were ineffective”.

What are the factors that have made indigenous medicine, such as Ayurveda, as ineffective option? Why do Punjabis consider biomedical treatment as most appropriate? In the next section I will expand upon Raj’s statement to illustrate the significance of biomedicine in modern-day rural Punjab.

Agriculture and Health

Green Revolution

For those confronting (or being confronted with) the negative impact of modernity most notably in the form of the polluted environment, unsanitary working

⁴⁷ *Haalkai*: plural; *halkaa*: singular masculine; *halkee*: feminine

⁴⁸ Plural form. *Halka*: masculine singular. *Halkai*: masculine plural. *Halkee*: feminine singular and plural.

conditions, or pesticide-laced food, health increasingly becomes a condition most-effectively acquired through consumption of medications,

today I go to the shop and buy a mixed thing – Chinese rice, IR-8 – a hybrid rice, and rice from the upghats...I am not sure of this rice. It does not have the taste of the rice I ate as a boy nor the strength, but it is available and I buy it because it is easy. So I take tonic for strength, it is also easy. (qtd. in Nichter 1989: p. 249).

This comment echoes observations I gathered from informants and illustrates several important changes resulting from the transition to modern life. Most significant is the Green Revolution, an agricultural regime instituted the late 1960s by the U.S. Agency for International Aid (USAID) with the intention of increasing food supply to alleviate hunger for the Third World⁴⁹. This agricultural technique

comprised new, high-yielding varieties (HYVs) of cereals, especially dwarf wheats and rices, in association with chemical fertilizers and agro-chemicals, and with controlled water-supply (usually involving irrigation) and new methods of cultivation, including mechanization. All of these together were seen as a ‘package’ of practices’ to supersede ‘traditional’ technology and to be adopted as a whole (Farmer 1986: p.175-176).

This method required nothing less than a total transformation of agricultural techniques. Although the Green Revolution was not met with successful results everywhere due to different climactic conditions, the area of Punjab and surrounds did particularly well in large part as it had a long sunny season and good irrigation possibilities (p.177) which were compatible with the needs of crops such as corn and wheat. This had the effect of

⁴⁹ Farmer (1986) opines that it was also promoted to allay agrarian unrest and a possible “Red Revolution”, a salient fear during the era of the Cold War and Vietnam (p.176)

drastically increasing the productivity of crops and consequently, the annual income of the Jat Sikhs who became the nouveau “rural rich” (Bordewich 1986: p.27).

The Green Revolution has introduced several ecological changes which have had serious consequences for the health of the Punjabis. For instance, this method relies upon constant irrigation, which lowers the water table. In the summer of 2002, Punjab experienced a drought and because the farmers had already drawn out so much water through irrigation from previous seasons, they were unable to provide water to their crops. Gill and Ghuman (2000) observe that, during springtime in Punjab, the standing water in the rice fields results in humidity, mosquitoes (malaria), and fever to the population (p.4497). Crops are regularly burnt to make way for the next growth which results in long-term and sustained air pollution.

It was from my interviews on health with lay informants that I learned of the implications of chemically-treated crops. Food, once a source of unquestioned nutrition, grown from the hands of Punjabis on land that had passed down to their lineage for generations, has slowly become a compromised means of sustenance. When I asked my informants⁵⁰ whether they thought the health of people was better twenty years ago or now⁵¹, many replied that people were healthier “back then” as they did not consume so much chemically-treated food and had more of a “pure diet” as, Shindo a schoolteacher⁵² in her late 20s put it; “now pesticides are on everything”. Their farm-oriented mode of

⁵⁰ Those that were above 30 years old.

⁵⁰ My intention was to learn of how they perceived medical treatment. Seeing as how they favoured biomedicine, I assumed that they would say that people’s health was better now because there were more biomedical practitioners present.

⁵² Although she, her husband, and father-in-law were schoolteachers, they still had land and grew crops.

life has made the connection between chemicals and sickness quite apparent, “you eat the chemicals, of course your body will be tainted” she said.

The informants were able to bring up an array of examples illustrating the ways in which their crops had become a problematic source of subsistence. Gurmit remarked that in recent few years, even vegetable patches had begun to be treated with medicine, or *dwa*. Almost everyone commented upon how water buffalo (a source of dairy) were being injected with milk-inducing hormones and provided with chemicalised feed; one woman described the butter having black streaks as a result. In a related vein, Shindo mentioned how spice mixtures (*masalas*) were no longer ground at home, rather they were now purchased in powder form. She did not feel entirely comfortable consuming them as she had heard stories about how substances, such as sawdust, were assimilated into these mixtures. However she had no choice but to carry on with the purchase of such packaged products as she could not spend all her time growing and grinding every required spice.

Aside from the oral ingestion of tainted crops, chemicals contributed negatively to health as airborne chemicals from the field made their way to households located nearby. When I asked medical practitioners to provide a profile of typical illnesses experienced by the village, allergies, congestion, asthma, and eye infections were always on the top of their list and they blamed various forms of air pollution (i.e. ashes and ‘dust’ from rice fields, petrol exhaust) for this. Fitness is slowly becoming a common pastime in Punjab, but those who take up exercise may be doing more harm than good to themselves, one doctor commented on the irony of those go for walks or jogging and declared that they

were “misguided because they end up breathing in pollutants while walking near the fields”.

While the Green Revolution has created fields imbued with pesticides and fertilisers, the domestic sphere hosts its fair share of polluting elements as well. Most apparent to me was the smoke and residue from the yogurt-maker and the cooking hearth, *chula*, both of which were fueled by manure and twigs (themselves laced with chemicals such as pesticides). During the cold winter mornings and evenings, we would huddle in front of the small fire pit (used for making tea and dishes to eat with the roti) taking in the warmth it provided while trying to ignore our stinging eyes and irritated throat. Other sources of smoke came from the tractors and scooters which were wheeled in close to the living quarters at the end of the day. As most Punjabi houses do not have garages, these vehicles would often be parked in the house or by the front entrance area. Bal (2000) observes that it is the women who bear the brunt of a modern rural Punjabi lifestyle as they experience most intimate and sustained contact with noxious substances, which include supposedly benign products essential for the social capital of the modern Jat Sikh family such as dishwashing soap and laundry detergent (Bal 2000: p. 76-77). Chani, a woman in her 80s, did not use dishwashing soap when doing the dishes, instead she preferred to use the traditional method of scraping with ashes to prevent irritation. Gurmit, like other females, would pass her mornings cleaning and would use a very strong (and headache-inducing) floor cleanser⁵³ for the daily floor scrubbing and an abrasive laundry detergent⁵⁴ for clothes. She would always take a shower afterwards to assure herself of a complete rinse of every last bit of cleanser to prevent the development

⁵³ Household cleansers were referred to as *dwai*

⁵⁴ Laundry detergent is referred to as *saarf*

of skin irritation. It is difficult to know how regulated such products are, but low quality cleansers are found in great abundance and easily purchased due to their affordable prices and easy availability (Bal 2000: p.77).

The practices of the Green Revolution have introduced crops sprayed with chemicals which make their way into the food. For all that it has granted Jat Sikhs significant purchasing power. Their engagement with the consumer economy, as affluent agriculturalists with a significant amount of disposable income, relative to the rest of the Indian population, makes it difficult to ignore the cachet of products such as scooters and household cleansers. Douglas and Wildavsky (1982) observe that the same science and technology which makes one modern also produces their risks, “the choice of risks and the choice of how to live are taken together” (p.8). Indeed, the factors responsible and reflective of Punjab’s economic development are the same ones to blame for its inhabitants’ compromised health.

Medicalisation of Environmental Syndromes

The various illnesses doctors and laypeople described as emanating from the environmental surroundings included fever, worm infestations, diarrhea, and food poisoning (from the summer rains which could flood the sewage systems). This was in addition to tropical diseases such as malaria, typhoid and dysentery. The development of such diseases, such as typhoid, has been aggravated by Punjab’s quick rate of urbanisation following the Green Revolution. This has expressed itself as horizontal expansion which encroaches upon the adjoining rural areas. Water and garbage is being

diverted away from the cities to the surroundings. Sewage and waste management plants for this pollution has yet to be implemented (Gill & Ghuman 2000: p.4476).

Treatment for these and other ailments were widely available, pharmaceutically-oriented and casually dispensed. One doctor, treated environmental-borne infections (from pollutants) with “antibiotics and anti-allergens simultaneously”. Another doctor operated from the understanding that ulcers were caused by “diet and tension” and recommended an anti-spasmodic as one of his treatments. For blood pressure, understood to be caused by tension and stress in 95% of the cases according to same doctor, the most effective treatment was to induce relaxation by giving tranquilisers. He argued that the “two to three hours of sleep it provides are needed in order to face life”; and, in possible anticipation of my reaction to such a statement, he declared that a World Health Organization survey revealed that 50% of the people could die without tranquilisers.

In addition to environment, the class status of people was another factor influencing their illnesses. For instance, while sickness may result from close handling of crops, the responsibility of this often falls onto the hands of the marginalised migrant land labourers⁵⁵. Jats will tend to the crops when it is harvest time with families pitching in together to grind the wheat and corn and lay it out in the sun to dry and gather them afterwards. Outside of this, it is the land labourers who handle the crops. This became clear to me one night when I woke at 2 AM hearing thunder and seeing a figure outside the house entrance shoveling the corn kernels into a pile to cover with plastic to prevent it from becoming wet. I lay in bed and watched this figure, who I assumed was my uncle, attack the momentous pile of kernels in the middle of the night and thought of the

⁵⁵ These labourers are usually from Bengal.

arduousness of life for Jat Sikh farmers as they sought to protect their livelihood in the face of environmental circumstances such as drought and rain. As my eyes adjusted to the darkness, I saw that it was not my uncle toiling away in the night. It was the Bengali labourer, Sham. My uncle was merely supervising from his sleeping quarters several feet away. A few days after, Sham became sick with a fever, which my household attributed to his handling of the corn. Due to either lack of time or money, he was unable to visit a doctor and had to rely upon his employer to provide him with medicines. The household considered having my uncle drive to the clinic to obtain some medicines, but then after some deliberation conceded that some Tylenol, which had been brought over by an overseas relative the past winter, would be best for Sham because it had worked the previous time with positive results.

The living conditions of these labourers also had a detrimental effect upon their health. Sham, his wife, and their infant daughter lived and slept in a room adjoining the stable where the buffalo were kept. Their exterior living space featured a tractor, a wall of dung cakes and the village road with a steady stream of vehicles. Some workers relied upon their employers to provide them with tea and food which was most likely different from their native diet preferences. Many aspects of their life are subordinated to the needs of their employers.

For the Jat Sikhs, one important factor contributing to their compromised health has to do with the sedentary mode of life resulting from the fact they are increasingly relying upon capital-intensive rather than labour-intensive work. Ajit, a senior informant, brought up the fact that people were healthier twenty years ago,

Now, no one does any strenuous work in the cold, they have a motor (electric water pump) and tractors... People used to work much harder before...with great happiness. Women would mix *lassi* with a rope and grind flour manually. Nowadays, people are after money and sell buffalo milk and grow crops⁵⁶.

Nowadays, engaging in manual work that a machine can do is seen as hopelessly old-fashioned which was made apparent to me when I was in the field watching a video I had made of two aunts from Nimbu Balara grinding pulses. I was with two teenage girl friends. We watched how they worked together with this hand-operated machine to make buffalo feed. The girls scoffed and carried on about the old-fashioned tendencies of the Nimbu Balarians.

A widespread condition that aptly reflects the lifestyle changes of the Punjabis is heart disease and blood pressure (*BP*, in indigenous terms,). According to one study (Dhaliwal 2001), by the year 2015, cardiovascular diseases in Punjab will replace infectious diseases as the major killer. While Punjabis suffer from heart disease, their risk factors vary from Westerners. Punjabis, generally do not engage in smoking and intake of high cholesterol, yet their diet consists of foods that high in saturated fats, alcohol,⁵⁷ and sugar. Ajit blamed people's increased intake of fried fatty foods and sweets for health problems. College students often eat from the *canteen* (small cafeteria) which sells snacks such as samosas⁵⁸, tikkis⁵⁹, burgers, pizza and even some meat⁶⁰ along with sweets such as pastries and chocolate. The adults working at the farm or at home. meanwhile, would eat meals with copious amounts of butter, drink heavily milky

⁵⁶ No longer a labour-intensive pursuit for Jats due to the availability of machinery.

⁵⁷ In the village, alcohol is mainly drunk by men.

⁵⁸ A deep-fried triangular pastry

⁵⁹ A potato-based deep-fried snack with condiments on top.

⁶⁰ Meat is seldom eaten by the Sikhs, especially the women.

and sweet tea several times and drink fatty buffalo milk. The Punjabis high intake of calorie-laden foods is no longer balanced by strenuous physical labour. The aforementioned study found that Punjabis tend to gain excess weight, around the abdomen, which brings forth an increase of a different type of fat (triglycerides) leading to heart disease as well as diabetes⁶¹. Unlike heart disease in the West, which often strikes after the age of 55, in Punjab it first affects those between the ages of 35 to 40. This particular type of heart disease has been termed “Syndrome X” because it is caused by different conditions and requires different techniques of treatment (Dhaliwal 2001).

Food and Diet

All the same, the diet of the Punjabis has remained remarkably unchanged despite the fact that one can buy Lay’s chips and Pepsi from the corner *daakan*. Products such as Maggi’s instant noodles, cookies, white bread and jam are marketed and consumed by children and teenagers and a few adults. They can be consumed along with traditional Punjabi meals. For instance, a person feeling ill may consume bread instead of roti (bread is lighter and easier to eat) and biscuits can be taken along with Punjabi tea. A few informants, perhaps for my benefit, contrasted their diet to that of Westerners. Bala declared that Indian foods were heavy and therefore detrimental to health, while Ajit commented upon how Canadians had access to fruits but for Punjabis it was expensive to purchase apples (i.e. Rs 100 for a kilogram), oranges and bananas. I was surprised at the sheer lack of fruits while I was there. This could be attributed to the fact it was Autumn

⁶¹ called “sugar” in Punjabi.

and perhaps because not many people were interested in dedicating the time and space for fruit growing. Cash crops and vegetable gardens took up enough energy.

Traditional Indian-style food was beginning to be conceptualised as being detrimental to the health of the modern health-conscious citizen. One female informant remarked that she used “light” butter unlike her *nanakay* (relatives from mother’s side) who still cooked with old-fashioned heavy *Desi* butter (homemade butter from buffalo’s milk). This “light” butter was, in fact, margarine that was now being promoted as a healthier alternative to *Desi* butter. One middle-aged informant, Rano, stated that *Desi* butter aggravated high blood pressure and also made the blood volatile by causing BP to become high or low. Apart from its “heaviness”, the tainted condition of dairy products was another reason to forego the consumption of *Desi* butter⁶², she commented upon it now had black streaks from the chemicalised feed and injections the buffalo take. I recall one instance in which one man in his 60s was advised by a doctor to decrease his consumption of butter because it was bad for heart, he maintained that he simply would not stop eating it because food had no taste without it, for him, butter was essential. Whenever I was offered butter to put on my *roti* or *savji* (cooked and seasoned vegetables), I refused the tablespoon-sized lump my hosts would lump on to which they would admonish me, “Why don’t you eat something sometime?...It won’t kill you, you are young...this is why you are so thin” and so on while I would think, “I am eating an entire meal, it is just butter I am refusing, so why all this fuss...”. The older sector of the population is reluctant to relinquish their dietary practices. Rano feels that the different generations of the village are beginning to have different dietary tolerances,

⁶² However, for *kraa*, a food offering (*parshad*) made by Sikhs during religious services, butter must be used. *Kraa* is wheat-based and mixed with sugar and butter and collectively consumed by all attendees at the end of a religious service.

Younger people prefer refined oil...Older people can handle Desi butter because they have been eating it since the day they were born. Eating any other thing [than what you are accustomed to] throws your system out of balance.

For some people, food from outside the outside was generally avoided because of the unsanitary conditions under which it could be prepared. The one and only time I had gotten sick in India was after I had eaten a few meals at *dhabas* (roadside stands) which was met with no surprise amongst my relatives. Even some of my cousins discouraged me from eating from village roadside stalls – the locals themselves held much reservation to such establishments as typical foreigners did. Ajit told his granddaughter to only eat packaged ice cream and avoid ones that were handmade by the merchants to avoid reduce the chances of becoming sick.

Ajit, had also brought up how people these days were becoming unhealthy as they were eating more and more fast foods which are purchased from vendors. He went on to say that “While [traditional sweets] were once made at home, now they are purchased from shops”. This has the affect of increasing the ease with which people can eat these foods as well as creating foods that were not fresh and came from less-trusted sources (i.e. outside the household)⁶³.

Scheper-Hughes and Lock (1987) observe that a “sociocentric conception of the body appears in cultures lacking a highly individualised and articulated conception of self”; for them, “sickness is often attributed to malevolent social relations (i.e. sorcery), or the breaking of social and moral codes, or to disharmony within the family or village community” (p.15). The way in which informants kept bringing up chemically-treated

⁶³ It should come as no surprise that some traditional religious Sikh Punjabis avoid eating out as much as possible as they are concerned about the purity of the foods.

crops and their negative effect of such alien products upon health shows how pollution can be used as an analogy to express a breakdown of social order (Douglas 1969: p.4). For the Punjabis, the significance of the division between *home/away, private/public, produced/purchased* is becoming compromised as modernity is creating more and more overlap between these divisions as people purchase fast food to serve to guests in their home and use hybrid seeds from a laboratory to grow traditional Punjabi food. One senior lady, Pajo, refused to inject her buffalo with milk producing hormones because she understood this as being a practice that went against God's will. She interpreted such interventions as a break of a moral code while other informants viewed chemicals as a volatile and alien element that threw askew the relationship between the body and the environment. Douglas (1969) writes that people will either refuse a known risk or seek compensation for assuming it (p.29). The Punjabis were "fighting fire with fire" by using modern medicine for the body to compensate or neutralise the effects of the polluted environment. Douglas and Wildavsky (1982) state, "debates about new technology put into question the old perceptions of the natural and normal" (p.35). Thus, for the Punjabis, whereas once it was normal to attain health from the herbs and foods growing nearby (*Desi* medicine), it has now become normal to become sick from such foods.

The negative effects of the Green Revolution were overwhelmingly understood from a body-oriented perspective which resulted in a medicalisation of symptoms treatable with pharmaceuticals. This brings to mind Scheper-Hughes (1992) work on competing hunger-based and biomedical understandings of *nervoso*, a debilitating condition demarcating the lives of Northeast Brazilian sugarcane workers as described in

Death Without Weeping: the Violence of Everyday Life in Brazil. *Nervoso* is a very open-ended and polysemic syndrome characterised by fatigue, weakness, dizziness and disorientation (1992 : p.167-169). One woman's describes it as thus

It comes from weakness and or from worries and perturbations in the head. You can't sleep, your heart pounds, your hands begin to shake and then your legs. You can have a headache. Finally, your legs get soft. They can't hold you up anymore, and so you fall over; you pass out (p.177).

Scheper-Hughes argues the primary causes of this disease may be traced to a state of chronic hunger and compromising working conditions, but amongst her informants, this interpretation is denied in favour of a medicalised model which creates *nervoso* as an individual problem treatable through the consumption of tranquilisers, vitamins and sleeping pills. It is preferred over a "more radical and socialised discourse on hunger" (p.169). While Punjabis did not have a specific disease associated with their means of livelihood they did medicalise the side effects of their farm work. Scheper-Hughes maintains that ailments similar to *nervoso* may occur any place where people undertake physical manual or wage labour because "theirs is a social class and culture that privileges the body and that instructs them in close attention to the physical senses and symptoms" (1992: p.185) in a similar way.

Religion and Purity

For some Punjabis, another important issue regarding food had to do with its metaphysical properties. Amongst the Jat Sikhs, food was very much a communal affair –

ideally, food was prepared by the community for the community. This could occur in the context of wedding celebrations or extended family get-togethers. The spirit of communal sustenance was best exemplified with visits to the Sikh *gurdhwara* when the devotees would partake in *parshaad* (blessed food, usually sweet) which would be handed out by volunteers, or *sevadar*, to be received by the recipient in an attitude of humility expressed by both hands being cupped open; also, it was to be eaten without letting the fingers touch the mouth, or it would be impure or *jootha* from the saliva.

I appreciated the efforts which were put towards a communal exchange after visiting Amritsar, the holy pilgrimage site of Sikhs. Here, visitors would make a donation and, in return, receive *parshaad* in a palm-sized basket which would be given to a *sevadar* who would then mix it into an enormous bowl filled with more *parshaad* and then hand back a small handful that transformed itself into a communal thing.

Gurdhwara services were usually followed by the *langaar*, or open kitchen, in which all people, irrespective of religious background and caste were welcome to eat a simple wholesome meal prepared by *sevadar* of the *gurdhwara*. Indeed, the significance of the *langaar* lay in the spirit of *seva* (religious work) and community.

Communal tendencies were encouraged, yet they were also in great tension with the need for purity. In my Nimbu Balara household, Raj and his wife, Mihndo Auntie were baptised Sikhs⁶⁴ which meant that nothing that they ate could be *jootha* (impure). I learned what this meant as I spent more and more time with them. For instance, while I

⁶⁴ Baptised Sikhs are ones who have taken a vow to live in devotion to God. They follow a lifestyle of service to the religion and community. They are required to keep their hair uncut as a sign of respect to the will of God; keep a small *kanga* (comb) in their hair as a sign of cleanliness; wear a type of loose cotton underwear symbolising modesty; wear an iron bracelet (*kara*) symbolising infinity, courage and service to God; also they must wear a *kirpan* (small sword) at all times representing the warrior-saint that the Sikh and their willingness to protect the weak from injustice. Further, baptised women are to wear no makeup and both sexes must refrain from meat, eggs, tobacco and alcohol as these are impure substances, which interfere with karma and compromise the body of God.

ate, I would be unable to pass a dish or a *roti* to either of them, because my hands were *jootha*. Thus, when we ate there was always be someone (another aunt) who would pass food and water to the eaters and she would commence her meal only when we were done.

Travel brings forth its own set of challenges as baptised Sikhs seek to maintain the integrity of their food. When I went on to the neighbouring state of Uttar Pradesh with my two baptised aunts, we ate *roti* and *savji* prepared from home on the 12 hour bus ride. There was some room for flexibility with regards to snacks and drinks, we all ate food such as biscuits, chips, and oranges and drank tea at the rest stops. Once, when we were in Kashipur, a city in Uttar Pradesh, my aunt and I waited in the Jeep while the others went off to do some errands. We were parked near a few foodstands. In this city, the population was predominantly Moslem and the men did not wear turbans (unlike the men of Punjab) and many smoked cigarettes as they fried up snacks and heated meals. My aunt spoke out her thoughts as we waited, “These are not our people. I would not be able to eat a meal from them...look at how they smoke”. I was surprised that the preparer of the food was invested with such significance, this was perhaps due to my Western upbringing in which anonymity and food service had become an unquestioned part of life.

Education by Analogy

As the agricultural environment was such a central point of reference for the informants, there is the possibility of developing health care strategies that acknowledge this. Mark and Mimi Nichter (1996) observe that various health promotion stragedies

failed in South Kanara (South India) and theorise that this may have do with the fact that the messages were transmitted to the villager in a very didactic way and lacked any intrinsic meaning. In their discussion with health staff workers (who were Indian), Nichter and Nichter found that they did not have the tools to “bridge the conceptual gap between the two cognitive universes in which they lived and worked” (p.403). Moreover, they found the methods used by local politicians, priests and the like to be more engaging and effective as they used analogies that villagers could relate to,

We noted the enthusiastic response which villagers would give to religious leaders when they juxtaposed the themes of traditional mythology with a popular movie to emphasize a moral principle; and how traditional *ayurvedic* practitioners would convey information about the relationship of body humours by reference to the sun, wind, and rain....
(p.404).

They propose the use of *analogy as mode of education*, which uses local everyday reality as a point of reference (p.402). Such an approach expands upon meaningful metaphors, familiar anecdotes, and daily experiences of the local and relates them to interconnected medical, social, and environmental issues which brings forth a discussion of health care alternatives. This requires substantial field research beforehand on indigenous health concerns and practices and local knowledge, which can then be used for “education by analogy” (p.401-406). For instance, to convey the idea that a nutritious diet was more effective for health than the purchase of tonic, they drew upon the villager’s experience with overuse of “urea”, a fertiliser which left the soil infertile, acidic, and “hot” (p.408). The analogic message of “Health, like a good crop cannot be purchased through a bottle of tonic or bag of urea” is elaborated upon with a portrayal of how overuse of urea leads

to large green crops that grew unevenly and fall to the ground –something that villagers have seen with their own eyes. Similarly, tonics may make the body feel good and render it functional, but it is a short-term effect. The message continues, “[i]f you wait until you are ill and then run for tonic expecting health, this is like supplying your field with urea at the time of harvest when your crop looks weak”. The instruction finishes off with a local proverb, “should one wait until thirsty to start digging the well?” (408).

In Nimbu Balara, one of the villages I stayed in, there was one man, Raj, who strived to follow non-medical options to health by avoiding chemically-treated crops as much as possible. Raj had to negotiate the health of himself and his family members within certain conditions: while he still worked in a chemically-treated agricultural environment (his family had one of the largest plots in the village thanks to contributions from his Non-Resident Indian family members), he grew organic versions of the same crop which he kept for his family. Furthermore, he refrained from eating certain vegetables such as peas because they underwent a great deal of chemical treatment. It seemed that Raj had an acute sense of “future time” as it was concern for the long-term effects of non-organic foods that made for his avoidance. His relative affluence helped as poor people usually are so concerned with having everyday needs met that the future is seldom concerned (Douglas & Wildavsky 1982: p.85).

Raj, who was mayor of the *pindh* had an air of great command and respect around him due to his kind personality, religious devotion and leadership qualities. Thus, his opinions carried significant weight to members of the community. He freely expressed his point of view on practices such as injections of hormones to buffalos. Although his listeners were concerned, putting his suggestions into practice was entirely a different

matter. Certain situations made it almost impossible to follow his advice: some families relied quite heavily on having a supply of milk for nutritional or financial purposes and so had to overlook the risks associated with milk-inducing hormones. In another scenario, one family had to seriously consider injecting one of their buffalo to induce milk because the buffalo refused to be handled by the woman responsible for such tasks – she had become used to the son of the household who could not always be around to attend to her. Women are often the prime caretakers of dairy animals, but their opinions can carry less weight than that of men's. One senior lady, Pajo, responsible for milking her buffalo, expressed great discomfort using milk-inducing hormone stimulants for the buffalo as she believed this to be a practice that went against God's will – if God wanted buffalo to produce milk all the time, they would have been given the natural capacity to do so. Her son and husband, however, were fixated on increased milk production of the buffalo and injected them when she was not around.

Conducting fieldwork made me all too aware of the constraints imposed by daily reality for the Punjabis, which makes it difficult to put theory into practice. Douglas and Wildavsky (1982) are sympathetic to these types of dilemmas and emphasise that people cannot possibly account for every risk presented to them. Long-term consequences may not feel relevant as they negotiate the matters of daily life. Nevertheless, there is no telling what results may occur when local development projects are initiated, so I will discuss one more option for accessible health care.

Nichter (1989) proposes consumer education on medicines: p.241); the idea behind this is that the explanation of medications may demystify them.

[This would set] the stage for comparative shopping and community activism directed toward: 1) proper administration and equitable distribution of public medical resources for identifiable health problems; 2) cooperative purchasing of commonly used generic medicine resources; and 3) the consideration of alternative health maintenance and disease control strategies (p.264).

Van der Geest (1988b) recommends that countries restrict importation of dangerous and inessential medicines (p.145) and that medical practitioners and patients in the informal sector be educated about proper usage of medicines (p.145-146).

The agents of change would be non-governmental organisations and community groups such as consumer protection organisations. Tucker (1996) brings up the many benefits such “anti-hegemonic actors” in the field of health development (p.119).

Funding for these types of groups are usually insecure; the community-oriented development projects they focus on do not produce “easily quantifiable outcomes in a short length of time” (*a la* World Bank) and they require a greater commitment from the worker who needs to be involved in face-to-face interactive work with the local community (Guldan 1996: p.692). Despite these ‘inefficiencies’, these actors have succeeded by mobilising

sufficient moral capital and have swayed public opinion, influenced government agencies and transnational organizations such as WHO. With today’s information technology, they are able to build links with like-minded organizations and form coalitions; consequently, they are now a “force to be reckoned with” (Tucker 1996: p.119).

Considering that Indians are coming from a tradition of medical plurality and are used to negotiating amongst different health care options, they might easily take to the

ideas presented by the proponents of health education and grassroots development and assimilate them into their repertoire.

There is no sure-fire approach with which to work out problems affecting Punjab's healthcare. Just as the factors influencing health are wide ranging and involve complex social, economic, and environmental factors, the options available to alleviate illness and disease require interdisciplinary (McMichael & Beaglehole 2000: p.498) and intercultural (i.e. between the *proponents* and *recipients* of development) collaboration and flexibility to adapt to the particular cultural contexts in which they are applied.

The diversity of medicine systems, medical practitioners, illnesses, and interpretations creates many contexts for dialogue about treatment and health amongst the villagers in rural Punjab. Medicine is *discussed* amongst the Punjabis, thus any health promotion project must be rendered significant enough to be appropriated by the laypeople. Its relevance could be confirmed by whether or not it became part of the local village discourse.

Suitable options for health vary not only across locations, but with time as well. Environment and technology will keep changing and introduce new variables creating and contributing to health and disease. Health is never an assured state; thus treatment in the form of pills, injections, and surgery to obtain and maintain a desired state will always be sought.

The logic of biomedicine has been appropriated in very particular ways into the daily life of the Punjabis. If we keep in line with one of the main tenets of pharmaceutical anthropology and consider the interactions between pharmaceuticals and indigenous medicine, we may consider the reactions of the rural Punjabis to chemically-

treated food and environment by recalling the importance of land-based (food and herb) medicine in indigenous or *Desi* medicine. The advent of the chemical society brought about in the name of development, progress and modernity has effectively undermined local or *Desi* practices of subsistence and healing.

In fact, one could do fieldwork that focuses on the Punjabi's understanding and uses of chemical agents such as pesticides, fertilizers and household cleansers to provide a more complete framework to situate pharmaceuticals in. The interactions between politics, power and human-environment relations (Mayar 1996) are another means with which to articulate the relations between agrarian modernity and health.

Conclusion

In January 2002, a few weeks after return, I became sick with what I thought was strep throat. Living the suburbs of Montreal without a car meant that doctor's offices were not easy to visit, moreover, their business opening hours always conflicted with my schedule. I tried visiting a health clinic near the university, but they took in patients without appointments only for two hours a day and I was too late. I had to wait for a few days until for a weekly "Youth Clinic" afternoon at a health clinic located nearby before I could obtain medical treatment. After being in Punjab, where people could easily consult a nearby doctor, with opening hours that met their needs and the option for housecalls, I was rather shocked at the inaccessibility of health care in Canada. My fieldwork had led to me internalising the assumption that I should be able to obtain medical care within a few hours of need, as in Punjab, not a few days. Witnessing my family and friends experience minor ailments and injuries and then negotiate whether to visit a doctor for

because of similar constraints of time, I wonder how many people in Canada delay or overlook medical treatment.

Punjab has plethora of doctors of varying specialties with some practicing Ayurveda and others with certificates in nutritional medicine alongside their biomedical training. Some may have studied at small medical colleges while others have graduate science degrees from universities. Thus, patients have a wide selection when it comes to choosing doctors.

The anecdote above depicts some significant differences between health care institutions in Punjab and Canada, however there are also many similarities in drug distribution and marketing between these two places. Pharmaceutical sales representatives operate in Western medical settings as well and offer substantial gifts and perks which influence prescription patterns (Chetely 1990). Moreover, the North American public is increasingly subject to advertisements for a variety of drugs such as antidepressants, to deal with the problems of life. Indeed, the pharmaceutical industry is a growing one whose trade is dependent upon both First and Third World consumers.

While it may be argued that there are many parallels between the practice of biomedicine in the West and Punjab, I feel that there is a greater likelihood of harmful misuse of drugs in Punjabi for several reasons. For instance, the organisation of health care facilities in rural Punjab is such that pharmacists and doctors may occupy similar roles. The fact that there is little distinction made between over-the-counter and prescription drugs means that patients may be given inappropriate drugs by untrained pharmacy clerks. Moreover, labeling and packaging of pharmaceuticals and drug information books tends to be in English. While most medical practitioners have a basic

comprehension of English, if labeling was in Hindi, the national language, it would be much easier to understand the properties and usages of the drug. Additionally, the fact that patients receive drugs unpackaged and unlabelled may make it difficult for them to remember the correct dosage of each drug.

After examining the cultural authority biomedicine and pharmaceuticals have determining health care options, I have become more skeptical of their promised benefits for people both in the West and in India. The way in which I, as a healthy Canadian graduate student, perceive medical treatment in India, is far different from that of the Punjabis. For most of them, the politics of biomedicine might be irrelevant as they deal with other matters of daily life. As Taylor points out in Van der Geest (1988), “older, sicker and less-educated people probably want to be able to put their trust in their doctors and avoid being confronted with too many difficult choices related to their treatments” (p.351). With regard to my fieldwork community, my findings have limited significance aside from a few doctors who are curious about my work and perhaps people like Raj who shun chemically-treated food.

Throughout this thesis I have been referring to the concerns of pharmaceutical anthropology by focusing on the political, social and economical context of drug transaction and the various meaning drugs can have for its users (Van der Geest 1988: p. 330). I have also taken a critical medical anthropology perspective to consider the interrelation between economics and health in today’s global setting. Being concerned with the politics of biomedical health treatment does not necessarily mean that one is *against* biomedicine. Undeniably, this medical system has eradicated and alleviated many diseases which have enabled countless people to carry on a longer and better

quality of life. The critical medical anthropologist takes biomedicine as a given but asks questions such as, “Who gets access to biomedicine?”, “Who is able to determine what biomedicine means to a given community?” and “Who is suffering and why?”

With the Bhopal gas leak disaster eighteen years ago, it was the Indian citizens who suffered from the careless safety practices of American-based pesticide company, Union Carbide⁶⁵. While the Punjabis have not been subject to such overtly life-threatening scenarios, they are exposed to various toxins, as discussed in the previous chapter. Douglas and Wildavsky (1982) maintain that power relations must be considered to fully understand the “pattern of risks incurred” (p.8) from the environment. The Bhopal disaster and the advent of the Punjabi chemical society can be contextualised within the practice of “peripheral capitalism” whereby harmful modes of production are imported to the Third World to benefit from cheap labour and less stringent working conditions (Makhoul 1984: p.376-377). The transmission of banned or outdated products such as pharmaceuticals, pesticides alongside “hazardous factories [and] unattractive industrial work processes” form other ways in which health risks are transmitted to the Third World (p.376-377).

Makhoul calls for an acknowledgement of working conditions and their impact upon the body as “health suffers because of the very relations of economic and political domination inherent in the processes of and structures of production under imperialism” (p. 374). He observes that the inhabitants of the periphery and those at the center (First World) suffer from different ailments as a result of their particular working conditions. While the former experience a combination of stress, illnesses resulting from overwork

⁶⁵ To date, there are reports of cancer and birth defects from tainted groundwater (<http://www.bhopal.org/appeals/18thanniversaryappeal.pdf>).

and undernourishment, and exposure to toxic substances, the latter are prone to suicide and stress-related diseases (p.378). For the Punjabi Jat Sikhs, it can be argued that they are situated both in the periphery *and* centre. They supply the international and marketplace with cereals and suffer from toxic working conditions which locates them periphery, yet they are also very affluent agriculturalists who suffer from sedentary lifestyles and diets high in fat and sugar resulting in diseases of the rich such as heart problems, diabetes and obesity. In a capitalist setting, disease is “socially produced” while responsibility for it is attributed to the individuals (p.378).

The “logic” of biomedicine refers to the manner in which this medical option has become such an integrated aspect of Punjabi life. The number of everyday chemically-based substances which may be invoked by the term ‘medicine’ stands testament to this. Moreover, Punjab, as a state which used to be under colonial control meant that biomedicine, even though it was only initially practiced amongst a few, has enjoyed a long history there. Once its effectiveness was demonstrated through its success at battling epidemics, its position as a privileged treatment option began to be secured. This nation is home to a plurality of medical systems that biomedicine is incorporated. Each of these systems hold their own particular benefits and shortcomings which patients consider as they pursue the means available to become well.

As stated in the first chapter, I set out to Punjab hoping to document the novel uses the villagers attributed to pharmaceuticals. While I did not come across any such uses, I did manage to learn how pharmaceuticals were given meaning and contextualised in an agricultural Punjabi setting.

Maintaining functional health to carry out daily tasks was main priority for these villagers and was pursued through a variety of means. For the rural Punjabis, biomedicine, because it was so widely practiced and delivered quick results, was the most appropriate option. Patients participated in health care by negotiating with their doctors the form of biomedical treatment that was best-suited for them and took pills or injections for health. Some would include some indigenous or *Desi* treatments into their repertoire.

Injections were popular and utilised for many different reasons amongst medical practitioners and laypersons alike. Doctors administered them for illnesses and vaccines in order to bring about health and well-being. Injections could be used for conditions ranging from blood pressure, injuries or colds. Young adults, mostly men, used them for more illicit purposes and injected to invoke a *nishan* (mental/physical sensation). While there sometimes be opium in these injections, the cheaper allergy medications were more popular. Other men who engaged in demanding manual labour took injections alongside other drugs to help them work.

In Punjab, one could find traditional medicine such as Ayurveda and Unani, (which could also be referred to as *Desi* medicine), but to a lesser extent. As in the West, ‘alternative’ treatments such Ayurveda or naturopathy medicine remain the concern of those who have a higher education and higher income and better health. In Punjab, biomedical and non-biomedical treatment was sometimes combined either by the medical practitioner or patient, at other times, one treatment option was exclusively pursued.

What are the implications of this study? One could apply the findings to a Canadian, or Western context in a few ways. As I have alluded to before, the economic and political context which governs certain aspects of biomedicine such as drug

distribution and medicalisation of ailments stemming from the environment can be applied to a Canadian setting. For example, one could consider the health of farmers in Saskatchewan or those working in the steel industry of Southern Ontario in light of my type of research. Sometimes, looking at the way in which something 'normal' like biomedicine is practiced in a non-Western setting provides an anthropologist with a fresh perspective on its practice at home, in Canada or elsewhere. In addition, the way the Punjabi diaspora, which is quite sizeable in certain Western nations, conceptualises and uses health care, can be better understood after their traditional understanding of health and illness is taken into account. For Punjabis, the environment is an important element determining health, or lack thereof. One British-Punjabi informant interviewed by Krause (1989) states, "This [United Kingdom] is not our domain (muluk). Here there is no air and no trees which are good for our health" (p.569). Certainly, this can have serious implications for health care practices of the Punjabi diaspora.

While in pharmaceutical anthropology, medications are treated as important elements of globalisation as patients visit village doctors prescribing pills presumably marketed to them by transnational pharmaceutical representatives, it should be noted that the Jat Sikh Punjabis negotiate these types of global influences as they are assisted by Non-Resident Indian diasporic relatives for financial support that allow them to undergo costly operations, purchase blood pressure monitors to use at home, or use biomedical drugs imported from the West. This has become one way in which they adapt to a private health care system. As we saw, Punjabis encounter transnational forces in their village life with capital-intensive agricultural practices which involve cash crop production, hybrid seeds, and machinery. The income garnered from this livelihood creates a rural

consumer society complete with colour televisions, refrigerators, mass-produced food and drinks and scooters. This comes with a cost of compromised health as Punjabis negotiate health and well-being in a chemical society.

Given the well recognized global health and health care transition that is under way, limiting observation to what takes place between healer and their patients...is too narrow a research frame. Ethnographic accounts of health care related behaviours clearly need to take into account the political economies fostering and inhibiting particular care modalities; the impact of globalization, the media (local and international), and identity politics, among other factors (Lock & Nichter 2002: p.13).

It is clear that medical anthropology needs to consider both a macro and micro viewpoint in theory and in fieldwork. Ethnography, the anthropologist's specialty, can be utilised to examine aspects of "global forces" such as pharmaceutical industries. Tucker (1997) suggests that medical anthropologists conduct fieldwork on pharmaceutical sales representatives, the corporate culture of transnational industries, large-scale organisations such as WHO, and medical research facilities. This would allow for an anthropological analysis of "the social construction of larger systems at the national and international level" which would be an important first step in providing a micro-macro perspective to health and medicine (p.123).

How will health care be practiced by Punjabis in the years to come? Will cases of *BP* keep increasing? Will there be more people like Raj who eat organic foods? It is difficult to say. The younger generation (i.e. under thirty) of men and women are becoming more accustomed to traveling to nearby cities for health care, schooling, shopping and leisure which grants them an increased number of health care options.

In today's globalised setting, economics plays no small role in health care. The Indian government has been promoting neoliberal policies for the past fifteen years to encourage the growth of a market economy so this nation may remain competitive in the international economy. As a result, it has had to withdraw from the public sector which is leaving health care in the hands of private medical practitioners, pharmacists and transnational pharmaceutical corporations. It will be up to the Punjabi citizens to negotiate the costs of health by drawing upon a combination of wage labour, agriculture or financial assistance from the Indian diaspora. This will continue to form the context in which biomedicine is practiced in Punjab.

This thesis has provided a framework with which to begin an articulation of the health care practices of Punjabis. Biomedicine has become a widespread phenomenon and an important option for people all over the world, including rural Indians. While this pervasiveness reflects its efficacy, it also demonstrates the importance of examining the economic and political context of this medicine system. Along with this, an ethnographic study of the local perspective is required, which can provide a valuable contribution to the debate on globalisation and problematise so-called dichotomies such as traditional-modern, East-West, or local-global. With such a study, there is also much to offer to applied or development anthropology as such micro-macro perspectives are pursued.

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Glossary

Akand Path: a recitation of the Sikh Holy Book. Can be done in the *gurdhwara* or at home. The attendees make a small donation, which is given to a *gurdhwara*.

Amrit Shakah: baptised Sikhs.

Barfi: An Indian milk-based sweet, like fudge.

BP: Punjabi term for blood pressure (either high or low) which has emerged in the past ten years or so.

Canteen: small cafeteria found in schools.

Chara: drug taken by workers, usually truck drivers, for mental stimulation

Chula: an outdoor cooking apparatus fueled by fire used to make *roti*.

Dakkan: Generally refers to a building in which goods and services are exchanged. A doctor's clinic may be called a *dakkan* along with a food items or clothing store.

Dahl: a dish made from beans or lentils, generally eaten more in the summer with *roti* or rice.

Desi: local, Indian. In this thesis, refers to indigenous medicine/home remedies.

Dhaba: roadside eatery

Dispensary: clinic

Dwaa: Medicine

Garam: Warm. This term also refers to heating properties of particular foods, herbs, and spices.

Gohlie: "little round". Refers to pills and tablets.

Government hospital: lay term for publically-funded hospitals.

Hakim: Technically, a Unani practitioner, but may refer to an indigenous one.

Haalka (m)/Haalki (f): Light. Impotent medicines are "haalki"

Jootha: impure. This usually applies to food that becomes impure from contact with

saliva.

Jwen: herbal medicine

Kraa: wheat-based and mixed with sugar and butter and collectively consumed by all attendees at the end of a religious service

Laddoo: An Indian sweet. Distributed in celebration of many occasions including the birth of a baby boy.

Lassi: A yogurt-based drink from left-over milk consumed in the mornings.

Mahmah: mother's brother. Traditionally lives at the nanakaay.

Nanakaay: ego's mother's village.

Nishan: mental stimulation

Parshaad: A flour/sugar/butter offering that Sikh worshippers receive in their gurdhwara (Sikh temple)

Parchee: receipt or prescription

'Path: i.e. *Homeopath*. Indigenous doctor. Refers to a practitioner of indigenous medicine.

Pindh: Village, ego's father's village.

Private hospital: government hospital. Most often located in cities, in which patients pay for their healthcare. A common recourse for typical Jat Sikhs if treatment from their village doctor is not working.

Quack: A perjorative term for doctors who may be unqualified or indigenous (depending on how the user perceives such a doctor).

Saag: A Punjabi dish made of boiled mustard greens, spinach....something else that is eaten throughout the winter with cornflour *rotis*.

Saavji: cooked vegetables eaten with roti.

Sevadar: one who works in service for a religious establishment

Roti: synonymous with 'food'. An unleavened bread made of wheatflour in the summer and corn flour in the winter and eaten with saavji, dahl, saag and occasionally, yogurt.

Samosa: A deep-fried vegetable pastry originating from Bengal and popular in Punjab

Salt: A medical term referring to the active chemical ingredient of medicines. I.e. a generic medicine and brand-name medicine may be differently priced but contain the same “salt”.

Saanth: an exorcist.

Soond: A root vegetable closely related to ginger and consumed in dried powder as a preventative for liver, digestive problems [acidity].

Sugar: Punjabi term for diabetes, a common disease.

Syndrome X: A description of the particular type of heart disease Punjabis are prone to.

Thaaj: Fast, bright, intense. In medical terms, refers to potent medicines.

Thanda (m)/Thandi (f): Cool. Refers to temperature and the cooling quality of certain foods, spices, herbs and teas.

Tika: Injection.

Tikki: Deep-fried potato-based snack with condiments on top.