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THE HEART OF WHAT'S THE MATTER  
*The Semantics of Illness in Iran*<sup>1</sup>

ABSTRACT. Our understanding of the psychosocial and cultural dimensions of disease and illness is limited not merely by a lack of empirical knowledge but also by an inadequate medical semantics. The empiricist theories of medical language commonly employed both by comparative ethnosemantic studies and by medical theory are unable to account for the integration of illness and the language of high medical traditions into distinctive social and symbolic contexts. A semantic network analysis conceives the meaning of illness categories to be constituted not primarily as an ostensive relationship between signs and natural disease entities but as a 'syndrome' of symbols and experiences which typically 'run together' for the members of a society. Such analysis directs our attention to the patterns of associations which provide meaning to elements of a medical lexicon and to the constitution of that meaning through the use of medical discourse to articulate distinctive configurations of social stress and to negotiate relief for the sufferer. This paper provides a critical discussion of medical semantics and develops a semantic network analysis of 'heart distress', a folk illness in Iran.

1. INTRODUCTION

Human disease has provided anthropologists with an important domain for the investigation of cultural relativity, that is the meaningful shaping of 'natural' reality. Such studies are not of academic import alone. Our understanding of the way in which psychosocial and cultural factors affect the incidence, course, experience and outcome of disease is crucial for clinical medicine, both in the determination of what data is clinically relevant and where the therapeutic intervention should occur. Our conception of disease and illness is thus basic to cross-cultural studies of medicine and to medical practice (Kleinman, Eisenberg and Good 1976).

There have been a variety of recent efforts to 'de-entify' disease theory, to explore the view that diseases are not constituted as natural entities but *as social and historical realities*. A philosopher of medicine contends that a new 'ontological' basis for disease theory and medical practice is required, which can incorporate our recognition that a person's suffering is both a 'medical fact' and a 'socio-historical fact' (Wartofsky 1975). Foucault's critical studies of medicine in Western history pose sharply the question of whether diseases are artifacts of historically-specific modes of treatment and theoretical constructs (Foucault 1965, 1973). On the other hand a variety of studies have assumed the view that disease is a dynamic product of a person's relationship to his social and cultural environment: disease may be a response to social stresses or life events (e.g., Heisel *et al.* 1973) and is shaped in part by the nature of the cultural label which is applied to a person's condition (e.g., Waxler 1974). Efforts to apply such a

perspective clinically have found it necessary to reformulate disease theory in terms of 'open systems models' (Minuchin *et al.* 1975). Notwithstanding these constructive efforts, the 'medical model', which conceives diseases as natural entities that are reducible to physiological terms and are essentially free of cultural context, continues to have great force. Ironically, this perspective is assumed by a great deal of recent cross-cultural research. Ethnoscience studies have conceived comparative analysis as the examination of the way diseases are mapped onto culturally constructed classificatory schemata. It is the contention of this paper that such studies share with the medical model of disease certain basic (often unrecognized) assumptions about the relationship of language to medicine and about the nature of 'medical semantics' – the theory of how the meaning of medical language is constituted. These assumptions present obstacles to our understanding of the role of psychosocial and cultural factors in disease and therefore to an adequate cross-cultural research strategy.

The link between medicine and empiricist theories of language is a very old one in Western philosophy. Givner (1962) argues that Locke's theory of language was modeled on the medical experiments of his friend Sydenham. Locke believed the two primary functions of language to be *designation* and *classification* (Givner 1962:346). This view predominates in ethnoscience. Meaning, it is held, is constituted as the relationship between classificatory categories and the diseases which they designate. Categories are defined by distinctive features which provide their boundaries. Such a theory of meaning is closely modeled on one mode of medical activity – *diagnosis*. Diagnosis is viewed as the linking of a patient's condition to a disease category through the interpretation of symptoms as distinctive features (e.g., Frake 1961). My criticism of this perspective is not that diagnosis is an unimportant mode of medical activity. Medical diagnosis, however, is an unsatisfactory model for the construction of new theories of disease, particularly when such theories are intended to redefine what data is relevant to diagnosis. And the ethnocentricity in the assumption in cross-cultural research that diagnosis is simply 'based on' physical symptomatology is exposed by, for example, Turner's analysis of Ndembu divination as the diagnosis of *pathology in a patient's social field* (1975).

It is my argument, then, that we need not simply new theories of disease, but a new understanding of the relationship between medical language and disease. We need to develop a theory of medical language that does not reify the conception of disease and reduce medical semantics to the ostensive or naming function of language. Such a theory should direct cross-cultural research away from simply examining how societies map classificatory categories onto disease to an analysis of the manner in which illness and disease are deeply integrated into the structure of a society.

It will be proposed here that we use an analysis of 'semantic networks' to

understand the meaning of medical language as it is used in various communicative contexts. The meaning of a disease category cannot be understood simply as a set of defining symptoms. It is rather a 'syndrome' of typical experiences, a set of words, experiences, and feelings which typically 'run together' for the members of a society. Such a syndrome is not merely a reflection of symptoms linked with each other in natural reality, but a set of experiences associated through networks of meaning and social interaction in a society. This conception of medical semantics directs our attention to the use of medical discourse to articulate the experience of distinctive patterns of social stress, to the use of illness language to negotiate relief for the sufferer, and thus to the constitution of the meaning of medical language in its use in a variety of communicative contexts.

In this paper I will analyze 'heart distress', one category of illness in Iran, in terms of its semantic network. This analysis will be used as the basis for suggestions for further research. The data for this paper was gathered during two years of field research in Maragheh, a Turki-speaking town in the province of East Azerbaijan in northwest Iran.<sup>2</sup>

## 2. HEALTH CARE AND ILLNESS IN IRAN

This impediment in my speech produced grief in my heart, and at the same time my power to digest and assimilate food and drink was impaired; I could hardly swallow or digest a single mouthful of food. My powers became so weakened that the doctors gave up all hope of successful treatment. "This trouble arises from the heart", they said, "and from there it has spread through the constitution; the only method of treatment is that the anxiety which has come over the heart should be allayed."

*al-Ghazali*

In his autobiography, the eleventh century Islamic scholar Ghazali describes his experience of anxiety and personal crisis that was only resolved by his turning to mysticism. The people of Maragheh today would understand Ghazali's expression very well, for they too articulate certain experiences of crisis and distress as 'malaise of the heart' (*narahatiye qalb*). Women feeling trapped in the crowded homes behind the high walls along the winding alleyways of Maragheh, men feeling distress over a fight with their mother or wife, women who are taking the contraceptive pill or who have delivered a child – all frequently complain that their heart is pounding or beating irregularly. They complain that they are sick (*maris*) and go to the local physicians for treatment. What does it mean to have 'heart distress' in Maragheh? Can we gloss this illness complex simply as mild anxiety or depression with tachycardia, or is there a distinctly Iranian network of meaning which must be described if we are to understand heart distress? Why are seemingly diverse anxieties – contraception, pregnancy,

old age, interpersonal problems, money worries — all associated with one illness? Before I explore this issue, a brief description of Maragheh and its systems of health care is necessary.

Maragheh is an old agricultural town and marketing center, today having a population of over 60 000 people. It was the capital of the Mongul empire briefly in the thirteenth century, a regional center and residence of a powerful tribal and landowning family in the thirteenth century, and more recently a modest provincial bureaucratic center known throughout Azerbaijan for its decadent landlords and religiously conservative population. Its winding alleyways, old marketplace or bazaar, and vigorous religious life, particularly during the elaborately staged Moharram rituals, preserve a sense of community coherence and a style of life which is disappearing in much of urban Iran.

Maragheh has for many years been a prominent regional center of health care, to which villagers from the surrounding countryside would come for treatment by specialists of Galenic-Islamic, sacred, or more recently cosmopolitan medicine.<sup>3</sup> In 1920 approximately 13 *hakims* (traditional physicians) treated Maragheh's population of 18 000 people according to the herbal therapeutics of Galen and Abu Ali Sina (Avicenna). Sellers of herbal medicine, specialists in setting bones and treating dislocations, barbers who kept leeches and performed scarification or venesection, specialists in cupping, and midwives, all practiced in the bazaar and in the neighborhoods of Maragheh. Specialists in religious divination and the writing of curative prayers practiced in the mosques or in their homes. And a variety of popular medical treatments were carried out by family members, especially the older women. Dieting, treatment with dried and distilled herbal medicines, informal religious rites for the cure of illness caused by the evil eye or fright, small rites at local shrines, and other popular therapies were undertaken without the assistance of specialists.

Cosmopolitan medicine began to seriously affect Maragheh in the beginning of the twentieth century, when the *hakims* began to import and dispense European drugs and when a few physicians trained in Russia or in missionary schools began to practice in the town. But major changes occurred only in the 1930s, when Reza Shah instituted a licensure, forcing all *hakims* to either pass an examination covering Western medicine or give up their legitimate practice. During the 1930s public health facilities were opened, medical paraprofessions developed, and the professionalization of medicine began. The modern health care sector has continued to grow in Maragheh, and now comprises two hospitals, two public clinics, approximately twenty-five physicians with private practices, eight drugstores, twenty-one injectors, and sixteen dentists. The past forty years has seen a continuous effort by Iranian physicians to professionalize and gain dominance over the whole field of health care. As a result the high practice of Galenic-Islamic medicine has been eliminated, and

while traditional medicine continues to flourish in the popular sector, traditional health care specialists constantly fear suppression of their practice. There remain in Maragheh sellers of herbal medicine (ca. 3), traditional orthopedists (ca. 6 of wide reputation), neighborhood midwives (perhaps 25), and women in each neighborhood who specialize in cupping (perhaps 50 or more). Few of these persons are high specialists in the old tradition, but all are steeped in the popularized version of the high tradition and many are highly skilled technically.

While all *mullahs* (clerics) have a 'medical' role through their interpretation of ritual purity in terms of hygiene, the only religious specialists in curing are the writers of curative prayers (*du'a nevis*). Many *seyyids* or *mullahs* write an occasional prayer, but perhaps ten have city-wide reputations in Maragheh. *Du'a nevis* practice a form of divination, using four strung die (*raml*), an astrolabe, the Qur'an, or a system of assigning numbers to the letters of one's name. In some parts of the country these men are highly trained, some having been apprentices in India, and use divination to practice a kind of folk psychiatry (Fischer 1973:288).

The prayer-writers in Maragheh play a less conscious 'psychiatric' role, but in treating problems believed to respond to curative prayers – infertility, some forms of madness, and illness caused by evil eye, fright, or intentional magic – they become involved in the emotional and interpersonal crises of their clients.

Three high traditions of medicine – Galenic-Islamic, sacred, and cosmopolitan – provide the underlying structure for the medical theories and therapeutic forms of both the health care specialists and lay persons in Iran. Classical humoral medicine, continuous through the Greeks, Arabs, and Persians, provides the basic structure for popular physiology, images of illness, and therapy.<sup>4</sup> In simple terms, illness is conceived as arising from an excess or deficiency of the humors or the basic qualities (hot-cold, wet-dry), and therapy is directed at restoring the equilibrium characteristic of an individual's nature (*tabe'e*). Sacred medicine is grounded in the cosmology of the Qur'an and the Tradition (*Hadith*) (Nasr 1968), from which are drawn the images of *jinns* (spirits) and evil eye as agents of disease, and the logic of healing through the power of the sacred words, the breath or touch of holy men, or the manipulation of impurity. Sacred medicine is also based on the Hermetic tradition of astrology, alchemy, letter magic, and divination (Nasr 1967). Both of these sources provide the basis for popular notions of illness caused by spiritual invasion or interpersonal harm and for the therapy of the prayer-writers.

The three high traditions of medicine provide the basic explanatory models and theories of disease causation and cure that make up popular medical culture in Maragheh today.<sup>5</sup> While including ideas and therapies elaborated in several different high theoretical traditions, popular medicine integrates these

into a distinctive system of health care. This includes a popularly shared ethnophysiology, several 'folk illnesses' only partially recognized in the high traditions, a 'hierarchy of resort' for seeking care (Schwartz 1969), and forms of home care which vary from bed rest and diet to brief curing rites undertaken at home or in the neighborhood.

The popular system of medical care is above all medicine of the lay population and medicine of the home. It provides a language, passed on from generation to generation, in which people voice their experience of disease. And it provides a set of ideas, cognitive models, expectations, and norms that guide the responses to disease by a patient and by those persons in the patient's home, family and neighborhood who care for him. In this way the popular system of medicine socially and meaningfully constructs the experience of disease and the care of the ill.

A careful examination of popular medicine immediately poses a dilemma for understanding. On the one hand it appears to be made up of bits and pieces of ideas and therapeutic practices drawn from diverse sources, from medical traditions elaborated at a great remove — historically, geographically, culturally — from its present context in Maragheh. As in all complex societies, popular medicine in Iran includes a collection of ideas and practices, idiosyncratic and contradictory beliefs, mistaken metaphors (Percy 1975:64), and therapies followed cook-book style. It appears as a 'bricolage', a collection of elements "retained on the principle that 'they may always come in handy'" (Levi-Strauss 1966:18), a set of tools for constructing responses to disease. On the other hand this diverse collection seems somehow to be coherent and woven intimately into the structured fabric of social life behind the high courtyard walls and within the neighborhoods and the shops of Maragheh.

Popular medicine in many complex societies seems deeply integrated into the social life and symbolic structures of the community. From the products of diverse historical periods and high theoretical traditions, popular medicine constructs illness configurations which articulate conflicts and stresses peculiar to that community, and often provides therapies which reinforce integration and conservative values of the community. Currier (1966) describes how the hot-cold dichotomy, developed in ancient Greece and elaborated by Islamic science, provides a basic structuring principle of Mestizo culture and social interaction. Hildred Geertz shows how *latah*, a psychological disorder existing with similar symptomatology in several Asian societies, seems to be "tailor-made for Javanese" (1968:98). The same could be demonstrated for elements of popular medicine in Maragheh: the idiom of hot and cold, the humors (blood, dirty blood, bile), the extended meanings of the heart and liver, the use of the ritually polluted (*najes*) in curing, or folk illnesses caused by fright or the evil eye, each seem specially suited to Iranian social life.

Medical language, whatever its source, acquires meaning specific to a particular social and cultural context and in turn integrates illness and cure deeply into that context. How does this occur, and what does it imply for our analysis of the meaning of medical language, for a theory of the relationship between language and disease? The description of 'heart distress' in Iran will allow us to address this issue in more detail.

### 3. DISTRESS OF THE HEART

Shortly after we arrived in Maragheh, a shopkeeper told me that he had been having heart problems and, knowing that I was associated with the Health Office, wondered if I could help. He illustrated how his heart pounded (fist against his hand, "tak, tak, tak"), and replied to my query that he had already been to several doctors without success. At the same time, my wife, who regularly observed a family planning clinic, began to note that women constantly complained that the contraceptive pill caused them to be ill. The most common complaint was of 'heart distress' (*narahatiye qalb*); many women gave this as their reason for leaving the program, a problem which had serious consequences for the whole family planning effort. It was puzzling to us that people should complain so much about their hearts. Beginning with the simple hypothesis that people in Iran attend closely to their pulse and define heart palpitations as illness, we were compelled to pursue the question "What does it *mean* when a person says '*qalbim narahatdi*, my heart is uncomfortable or upset'?"

Heart distress is a category of disease (*maraz*) in Maragheh. Its symptoms are described in very physical terms. 'My heart is pounding' (*qalbim vurur*); 'my heart is trembling' (*qalbim tittirir*), or 'fluttering' (*chirpinir*), or 'beating rapidly' (*dovinir*, or *tez tez vurur*); 'my heart feels pressed or squeezed, bored or lonely' (*qalbim sixilir, daruxir*). These statements are often illustrated graphically, fist pounding on the chest, or hand squeezing together to illustrate a 'pressed heart'. Each of these are members of a general class of sensations described as 'heart distress' (*qalbim narahatdi*, 'my heart is uncomfortable, upset, in distress, uneasy or in "dis-ease"').

Heart discomfort has several degrees of severity. According to one informant:

If I come from the bazaar, for example, and you say my brother has come, my heart starts pounding (*vurur*), because I worry he may be in a fight, or someone is sick or something. But no, this isn't really an illness. However, if I don't go to the doctor and get something to cure the problem, it can get much worse. It may get so bad that my heart 'goes to sleep' (*qalbim yattar*). There are two meanings of this; either the person dies (*vol gider*, 'he goes on the road'), or he becomes unconscious (*behush, hesh özu bilmirir*, unconscious, 'doesn't even know himself').

You know the heart is like a motor, the motor of the body. If the heart goes bad, then everything else may.



Thus heart distresses range along a continuum from mild excitation of the heart to chronic sensations of heart irregularities, to fainting and heart attack (*saxteye qalb*).

This statement also indicates a central characteristic of heart distress: it is a complex of physical sensations associated with particular feelings of anxiety. Not all occurrences of a rapid pulse are considered to be signs of illness. Some women in Maragheh told us that sexual intercourse can lead to or aggravate disease, because it makes one's heart beat rapidly. It should therefore be avoided if one has heart distress. But clearly not all persons consider a rapid pulse during intercourse as a symptom of illness. On the other hand 'the heart' often represents the subject of experience (e.g., 'my heart longs for you . . .'; see below), but saying 'my heart is uncomfortable' does not mean simply 'I am uncomfortable'. Heart distress or discomfort is experienced as a physical sensation and as a stage of illness that may eventuate in a heart attack. It is when certain physical sensations are linked with certain feelings of anxiety that a person labels the sensations symptoms of illness. Examination of this illness complex must thus focus on those particular anxieties that are articulated in the idiom of heart discomfort. First, a general epidemiological profile of the illness will be given, two cases will be described, and the explanatory model of the heart which provides the cognitive framework for the illness will be discussed. These will then provide the data for an analysis of the meaning of heart distress in popular medicine in Maragheh and an examination of the particular cluster of social stresses that are experienced, communicated and dealt with as heart ailments.

Heart distress is a commonly experienced illness, in Maragheh, particularly amongst women of the lower social classes. In a survey we did of a stratified population of 750 persons in Maragheh and three surrounding villages, we asked respondents whether anyone in their family had been sick (*maris*) with heart distress in the past eight months; if so, who, what treatment was sought, and what was believed to have caused the illness. Nearly 40% of all households had had at least one person who suffered heart distress in eight months. Table I indicates the incidence by household as reported by men and women. The incidence is highest in bazaari and working class households, and is uniformly higher as reported by women in comparison with men. This is because, as Table II shows, heart distress is most commonly an illness of women, particularly of women of childbearing age. Of all reported cases, 55% were women of fifteen to forty-four years of age, and 73% were women of more than fifteen years of age. But it is important to remember that the illness is not limited to women.

When respondents were asked what they believed to be the cause of the illness, almost 40% of the causes suggested were specifically emotional and

TABLE I  
Rate of heart distress by social class  
(Percent answering 'yes' to question: Has anyone in your household been sick with heart distress in the past eight months?)

	Social class			
	Professional*	Bazaari*	Worker	Villager
Percent female respondents	35 %	55 %	62 %	56 %
Percent male respondents	20 %	43 %	25 %	34 %
Total respondents	112	147	138	146

\*'Lower Professionals' and 'Upper Bazaaris' have been deleted from these categories

interpersonal.<sup>6</sup> (The semantic network analysis below will explain in detail my system of grouping of reported causes.) '*Qus, qam, fikr, xiyalet*' (sorrow, sadness, worry, anxiousness) were common responses. These were often specified: sorrow because of a death in the family; worry due to poverty; worry or anxiety because of a fight with a spouse or mother-in-law; or distress at having too many children crammed into a woman's narrow living space. One man reported that he had divorced two previous wives because they could not bear him children. His third wife had produced a child, but he now worried about the women he divorced. A related set of responses (6%) blamed nerve problems – upset nerves, weak or tired nerves – as the cause of heart distress. Weakness, tiredness, and problems of blood pressure (13%); the contraceptive pill, pregnancy, miscarriage, infertility (16%); and a variety of specific diseases, including pneumonia, diphtheria, rheumatism, liver disease, and hemorrhoids (10%), were all reported as the cause of the heart distress.

Nearly half (49%) of those ill with heart disease were taken to a physician – even more (69%) if the patients were elderly. Fewer persons were treated with herbal medicines (13%), given drugs of some kind (7%), or were given no treatment at all (17%). Virtually no patients (1 out of 266) were treated for this illness by a prayer-writer.

Heart distress is thus typically experienced as irregular heart sensations

TABLE II  
Age breakdown of persons reported ill from heart distress

Age	0–14	15–44		45 plus	
		Female	Male	Female	Male
Percentage of total cases of heart distress	3%	55%	16%	18%	7%

believed to be caused by emotional or interpersonal problems, by childbirth, pregnancy or contraception, or by a variety of diseases. It is most common in women and the elderly (but not restricted to them), and is regularly treated by a physician, often more than once.

Two cases will more clearly illustrate the nature of heart distress.

### 3.1 Case I

Mrs. Z. was 27 years old when we first met her. She has five children ranging in age from six months to twelve years, three girls and two boys. Mrs. Z. lives with her husband (a stove craftsman in the bazaar) and her five children in one room of her husband's father's house. The other room is occupied by her husband's mother, father, and two sisters. They all maintain a single kitchen. Their simple house is surrounded by a fifteen foot brick wall that encloses a small courtyard with a piped water supply. The house has electricity but no water. The family income averages about 100 dollars per month, plus a small income from Mrs. Z.'s sister-in-law who works as a seamstress. The family leads a simple life, their income providing for sufficient food but little in the way of extras.

Mrs. Z. has never attended school, is completely illiterate, and knows no Persian. She does not know how to count money and has to be accompanied by her husband or sister-in-law on those few occasions when she goes to the market to shop. She goes out to visit her parents, who are poorer than her husband's family, about once per week to clean their house for them. Other trips into the outside world are limited to rare wedding celebration, a few religious mourning rituals, and an occasional trip to a doctor or a public health clinic. Thus Mrs. Z. passes nearly all of her days within the confines of her walled courtyard and home, surrounded by children and the women of her husband's family.

From the time we knew her Mrs. Z. complained about heart distress. She fretted continuously about her weak condition, her lack of strength and lack of blood, and the lack of meat on her bones. She complained of her heart pounding, her nerves being upset, and the sensation of her heart being squeezed (*darux*) and depressed. This continued for the 18 months that we knew her, without any significant change in her symptoms. She complained to anyone who would listen – her husband, others in the household, her neighbors, and the visiting anthropologist. On one occasion she told my wife that she always felt like screaming out. She blamed this on the fact that she was 27, already had 5 children, was stifled by narrow living quarters, and lived with her mother-in-law as the head of the household. She said, "I feel like screaming. But if you heard me you would be frightened, I would scream so loudly." Her desire to scream out was released in a series of fights with her mother-in-law which occurred at least weekly, loud fights with shrill screaming and crying which sounded over the walls and into the street. The fact that these fights were heard was a source of great embarrassment, for a woman's voice should not be heard outside of her courtyard just as her face should not be seen beyond the intimacy of her home.

In an attempt to limit her family size, Mrs. Z. took birth control pills for a brief period (less than one month) at the urging of her more educated neighbors. But when she took the pill, she said, she had heart palpitations, shaking hands, and upset nerves, all symptoms that she had experienced before but that she believed were exacerbated by the pill. Previous to taking the pill for contraceptive purposes, Mrs. Z. had once taken a whole month's supply in an effort to abort her last child. (She thus associated the pill with abortion and with prevention of pregnancy.)

Mrs. Z. occasionally used herbal medicines for both her weakness and her heart distress. She also visited the doctor several times to complain of her weakness and heart problems and was given a Vitamin B tonic. She never received any lasting relief. Mrs. Z. blamed her illness on having too many children, her cramped living conditions, the poverty of her parents and the chronic illness of her younger brother (who has a rheumatic heart

condition), her past use of the contraceptive pill, and the conflict she feels over her desire to avoid pregnancy while still satisfying her husband. These conditions continue, and so does her heart distress.

### 3.2. Case II

Mrs. B. is a 34 year old woman with a university degree. When we first met her she held a responsible position in a woman's organization. She is married to a civil servant with a university degree, who comes from a wealthy old merchant family from Maragheh (brothers include both wealthy bazaar merchants and professionals). She lives in an expensive, well-furnished house with her husband and two children. She works long hours at the office, does all of the cooking for the family, and cares for the children with the aid of an old woman.

When we first met her, Mrs. B. complained occasionally of heart distress and upset nerves. She treated herself primarily with teas brewed with herbs bought from the bazaar. She also complained of her husband's life style. He spent a great deal of time with his friends drinking, talking, and smoking opium, and at times stayed out quite late at night. While both of them pretended that she did not know that he smoked opium, she did know and worried that he would be addicted. (He was quite careful to avoid addiction.) Mrs. B. would make rather sharp joking comments about her husband being the cause of her heart distress. (He and his friends, in turn, joked that each was 'afraid' of his respective wife.)

In the spring of 1974, Mrs. B.'s husband's mother suffered a stroke, was eventually moved to a Tehran hospital, and died there. Mrs. B. was very involved in caring for the family members who came to Maragheh, then went with her mother-in-law to Tehran to help the family. While in Tehran, Mrs. B. was told one day that her children had been in a car accident. She was 'severely frightened' (*batar disjindim*), she said, and was able to learn only after several hours that her children were safe. After her mother-in-law's death, she returned to Maragheh to help stage the elaborate mourning ceremonies. A short time later she received another 'fright' when she saw her sister's husband in the hospital following a car accident. From this time she began to complain of depression (*darixma*), of the sensation of her heart being squeezed, of weak nerves, and of colitis pains. She went to local doctors to treat her abdominal pains, and continued to treat her heart problems and depression with herbal teas (which are mild sedatives). She became more morose through the spring and began to avoid people.

In the summer of 1974 her husband came home very late one evening from a gathering of friends, when he had promised to return early. When he came in and had obviously been drinking and smoking, she flew into a rage. She began crying uncontrollably and continued through the night. In the following days her depression and crying went on. She went to local physicians, then physicians in Tabriz; she was given tranquilizers but felt no better and continued to cry uncontrollably. In the fall she went back to work but on a reduced schedule.

Finally, several months after her breakdown, her husband took her to Tehran. "We saw several nerve doctors", she remembers, "but without relief."

"Finally when I went to the last one, *he asked me what was wrong with me*. I began to cry and told him about my fears for my husband, about my anger, and about my youth. When I was a student I was both teaching and going to the university. My father died during this time, but I had to continue to work and go to the university. As I talked about my anger with my husband, I began to feel better."

The doctor prescribed tranquilizers for her, and her condition improved through the rest of the fall and winter. Her husband promised never to smoke opium again and stopped coming home late. (She says that even if he stays out late now, she no longer worries because she knows that he is not smoking opium.) By the summer of 1975 Mrs. B. felt nearly recovered.

These two cases illustrate the social and affective context of the experience of heart distress. The first case is very typical. Mrs. Z. is poor, has too many children, lives and fights with her mother-in-law, and fears both pregnancy and contraception. Her heart distress is accompanied by complaints of feeling weak, constricted and depressed. She occasionally goes to the doctor, but her condition is essentially unalterable and continues to be experienced in the idiom of heart distress. Mrs. B.'s case began in a typical manner, resulting from the dispute with her husband and the stress of her work. When treatment failed to deal with these issues and when additional stresses arose, her condition advanced to a new stage of 'nervous disorder' (*narahatiye asab*). In these and other cases of heart distress, the illness is perceived as a complex which includes and links together both physical sensations of abnormality in the heart beat and feelings of anxiety, sadness, or anger. Why is the heart the focus of concern in these cases? Why are certain feelings of anxiety experienced and expressed as abnormalities of the heart?

Explanatory models for the functioning and malfunctioning of the heart provide the cultural framework for focusing the attention of individuals on heart beat, for labeling some conditions as disease symptoms, and for establishing causal links between irregularities in heart beat and specified personal and social conditions. The explanatory models in popular medicine in Maragheh for the functioning of the heart are drawn primarily from the Galenic paradigm. The precise function of the heart was debated over the centuries by Greek physicians and anatomists, by Islamic scholars and doctors, and later by Europeans.<sup>7</sup> But while certain aspects of the model provoked debate, the general framework for understanding the heart was unchallenged: the heart is *at once* a central physiological organ (related to innate heat, nutrition, and distribution of the blood) and an organ of emotional functioning (or the seat of the vital soul) in man.

It would be inappropriate to fully describe the classical view here, but in both Greek and Islamic science the theory of the heart is based in cosmology. Man is a Microcosm of the greater Universe, which consists of an ontological hierarchy from the sublunary realm (of generation and decay), the cosmic spheres, and the intelligible world of pure form.<sup>8</sup> All levels of the ontological hierarchy are represented in man. The liver is the seat of the natural faculty and the baser human appetites; its primary physiological function is the transformation of (raw) food into (cooked) blood. The brain is the seat of the rational faculty, which enables man to relate to the intelligible order. The vital or animal faculty resides in the heart; it provides the 'innate heat' and 'vital breath' (*pneuma* or *nafs*) to the body and is the seat of the emotions, particularly fear and anger ("because they coincide with the expansion and contraction of breath" – Ibn Sina 1930:118). The primary physiological function of the heart is not

circulation, of course, but the provision of heat necessary for life and the transformation of breath into the *pneuma*, which vitalizes the body. If the heart fails in these functions, particularly if it loses its strength as the source of innate heat, weakness and death may result. But for many diseases known in modern medicine to be heart diseases, Galen believed heart problems to be secondary rather than primary. Galen also believed that anger and grief may cause heart pain because they lead to excessive heat, and that fear and fright may cause the heart to leap and to register irregular pulse. But he does not (to my knowledge) describe the syndrome of mild palpitations and heart sensations which is called in Maragheh 'heart distress.'

The explanatory model of the heart in popular medicine in Maragheh is continuous with this long tradition: the heart is a pulsing physiological organ, but not responsible for the circulation of blood; and the heart articulates and is affected by the emotional state of the person. Blood is generally believed to travel around (*dolanir*, it 'strolls around') to provide nutrition to all parts of the body. Some believe this results from random movement of the body ("this is the reason your feet feel numb if you sit still too long"). One man described a wind (*bad, yel*) which forces the blood through the veins, as blowing through a tube into a pot of water causes activity. The heart is not described as a lamp or furnace (Galen), as a reservoir for blood (Aristotle), nor as a pump, of course. It is sometimes called the 'clock' of the body, focusing attention on the regularity of its rhythm. It is more often described as the motor of the body: it is the central driving force of the body; it inhales and exhausts air; and if it fails the whole organism comes to a halt. Thus the physiological models of the heart only loosely link the heart to blood, instead emphasizing centrality of the heart to life and focusing attention on the regularity of pulse in normal heart function.

Popular medicine does not speculate on a vital soul abiding in the heart and controlling passions, but 'the heart' is used linguistically to express affect, and emotional problems are believed to cause heart disease. In a variety of expressions, many still having English correlates, 'the heart' is treated as the subject of emotional experience and a symbol of the true essence of the person: *urayim istir* ('my heart wants. . .'); *urayimin dardin kimi diyim* ('whom can I tell of the pain in my heart'); *urayim kebab olur* ('my heart is broiled as a kebab' or 'my heart is scorched' – said when describing a tragic event); *qalxim xaber verir* ('my heart gives me news' – said of a premonition); *qalxidan qalxa yol var* ('there is a way from heart to heart' – said to a person one loves); *zahremar urayivan bashina* ('snake's poison to the top of your heart!' – a curse). The phrase *qalxim narahatdi* ('my heart is upset, uncomfortable, distressed') is a member of this class of expression. The heart thus provides an idiom for expressing emotion. In addition, to this, however, the functioning of the heart and its physical activity is believed to be directly and adversely affected by stress

and dysphoric affect — sadness, fear, anger, and general anxiety. These lead to irregularities in the beat of the body's 'clock', threatening ultimately a temporary halt or a sudden attack and death.

The conception of the heart in the classical tradition and in popular medicine provides the explanatory model that links physical sensations of heart abnormality to affective states and the experience of social stress. It provides the theoretical framework for the expression of stresses peculiar to Iranian society and to Maragheh in the idiom of the heart. But why are certain particular stresses most commonly believed to cause heart distress? Why, for example, is the contraceptive pill so generally believed to cause heart distress? Why are certain social stresses believed to cause heart distress, others to cause fright, nervous distress, 'anger' (*asabanilix*), or depression? A proper semantic theory should allow us to explore the *meaning* of these disease categories in a fashion which answers such questions. It should direct our attention to the integration of these illness categories into their psychosocial context in Maragheh.

#### 4. SEMANTICS OF THE HEART

An ethnosemantic (or ethnoscientific) analysis of disease categories in popular medicine in Maragheh would produce a hierarchically ordered taxonomy of categories, defined by their boundaries, whose meanings are essentially independent of their context of use. Methodologically, ethnoscience rigorously standardizes the context of elicitation, thus producing an 'analytic' domain not necessarily congruent with the meaning of a category as used in typical communicative contexts (cf. Schneider 1965). Such analysis directs our attention away from the social and symbolic context which gives an illness category its distinctive semantic configuration. Heart distress is indeed one element of the more inclusive category *narahati*, 'distress', and ethnoscientific analysis can help elicit the formal, symptomatic distinctions between, for example, 'heart distress' and 'fright'. But an alternative semantic analysis is necessary if we are to explore the question "What do Mrs. Z. and Mrs. B. mean when they say 'my heart is distressed'?", if we are to understand what it means to have heart distress in Maragheh (or a heart attack in Peoria).

The work of Turner, Izutsu, and Fox suggests a model of semantic analysis that is an important alternative to the ethnoscience model. Each contends that a system of discourse has certain symbols which gather their power and meaning by linking together a set or field of disparate symbols and condensing them into a simple image which can "invoke a nexus of symbolic associations" (Fox 1975:119). [Turner calls these "dominant ritual symbols" (1967:30); Izutsu, "focus-words" (1964:29); Fox, "core terms" (1975:111).] These symbols attain their depth not through their taxonomic generality but through their quality of

polysemy – “the property of a symbol to relate to a multiple range of other symbols” (Fox 1975:119). Such core symbols join together in a polysemic relationship a network of heterogeneous symbols that “cross-cut conventional grammatical categories” (Fox 1975:110). “Their very generality enables them to bracket together the most diverse ideas and phenomena” (Turner 1967:28). Understood subjectively, these symbols or images condense not merely a field of symbols, but a whole ‘syndrome of experiences’, as Lienhardt shows for the Dinka divinities (Lienhardt 1961:161). “As images, the Powers contract whole fields of direct experience and represent their fundamental nature each by a single term” (Lienhardt 1961:169). Methodologically, then, tracing out these networks of symbols and experiences should provide “a glimpse of the structuring of the cultural code . . .”(Fox 1975:111), yielding insight into the meaning of the most important elements in any semantic domain.

Turner goes on to show that these dense ritual symbols attain their meaning not merely as elements in a symbolic system, but as ‘forces’ in social interaction. They represent ‘gross’ social experience in the society, displaying at once the most basic normative or ideological principles of the society and a collection of “frankly, even flagrantly, physiological” *significata* (such as breast milk, breasts, blood, or male and female genitalia) (Turner 1967:28–29). Because they link basic social and motivational elements, manipulation of these symbols has the power to affect social action. These core symbols thus play a crucial role in forming a symbolic pathway which links the values and aspirations of purposive interaction, the stresses, shames and disappointments of social contingencies, and the affective and ultimately physiological elements of the personal.

This model suggests a method for approaching not merely ritual symbols but the language and discourse of illness and healing as well. It suggests we seek out for analysis the potent elements in the idiom of social interaction and explore the associated words, situations and forms of experience which they condense. These patterns of associations or semantic networks, which give meaning to the elements in the vocabulary of illness and healing, should lead us phenomenologically to those typical stress situations in a society and in the personality of individuals. Through a kind of *social free association*, we may gain an entry into the ‘inscape’ of individuals, “the distinctive reality as it is apprehended” (Percy 1975:79), and into the meaningful structuring of social reality.

The illness terms we have been discussing (heart distress, fright, weakness, nerves, etc.) should be amenable to such analysis. Following the model described above, illness categories can be understood as images which condense fields of experience, particularly of stressful experience. And they can be understood as the core symbols in a semantic network, a network of words, situations, symptoms and feelings which are associated with an illness and give it meaning for the sufferer. The meaning of an illness term is generated socially as it is used



by individuals to articulate their experiences of conflict and stress, thus becoming linked to typical syndromes of stresses in the society. Meanings of terms change as social conditions and the social context of their use are altered. The meaning of an illness term may decay or it may be newly constituted as it is linked to an altered network of symbols and stressful situations. Furthermore, if the form of analysis suggested here is successful, it should reveal both the distinctive semantic configuration of each illness term and the overlapping associational patterns of different terms. Our data on heart distress provides an opportunity for such analysis.

When we asked people in our survey the cause of each case of heart distress in their family, we received a long list of answers. Figure 1 shows these reported causes, arranged in general categories. Causes include feelings of sadness and anxiety (*qus o qam, fikr, xiyalet*, sadness and mourning, worry, anxiety) and the situational bases of these feelings (deaths, debts and poverty, quarrels, fights, family illness); old age; pregnancy, delivery, and miscarriage; contraception; feelings of weakness, blamed on lack of blood, high or low blood pressure, too few vitamins; problems of nerves; fright or the evil eye; dampness and foul

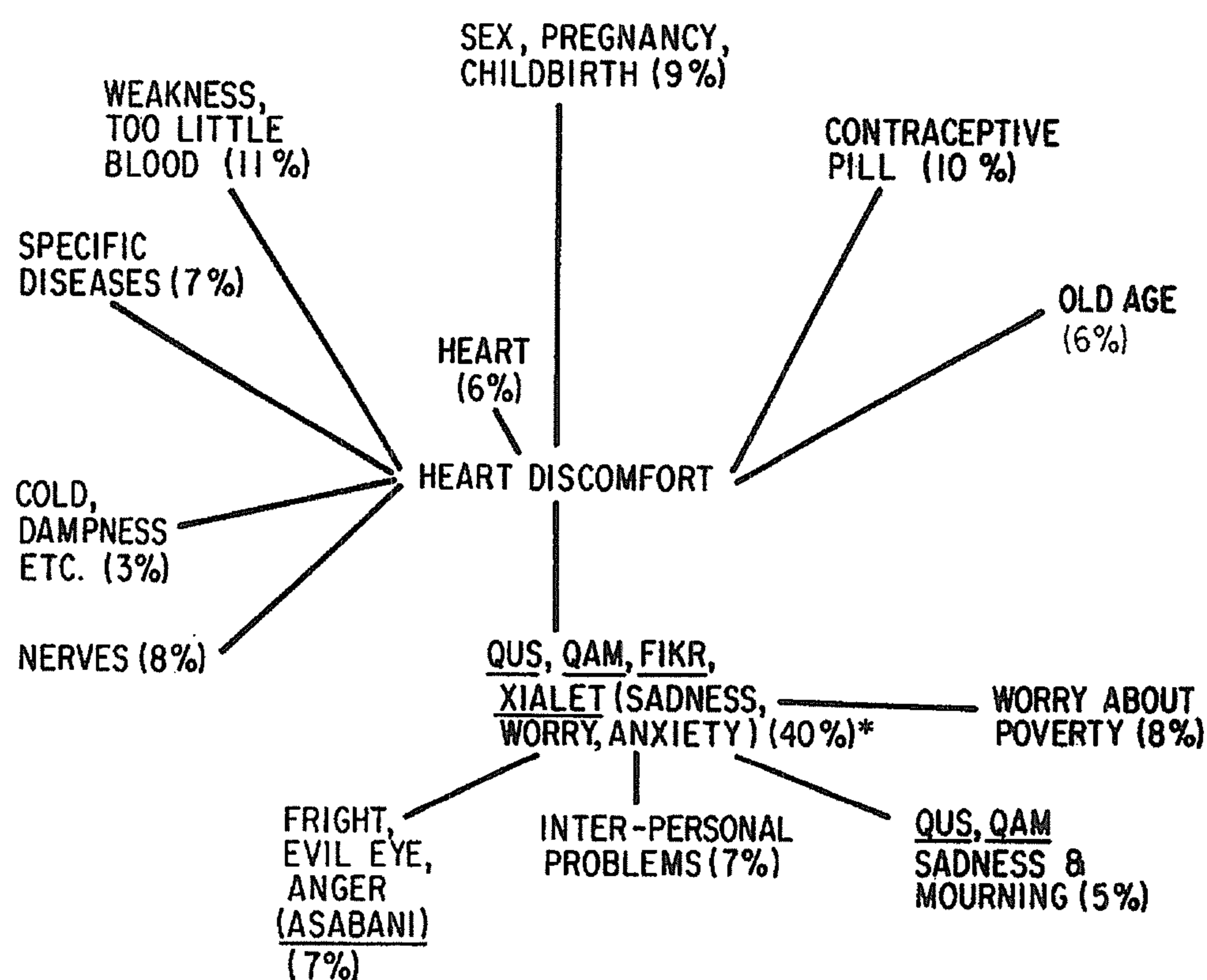


Fig. 1. Listed causes of heart distress. (Percentages refer to the responses to the question: What was the cause of the heart discomfort?)

\*The total 40% consists of the general answers 'sadness, worry, anxiety', in addition to members of the four subcategories listed.

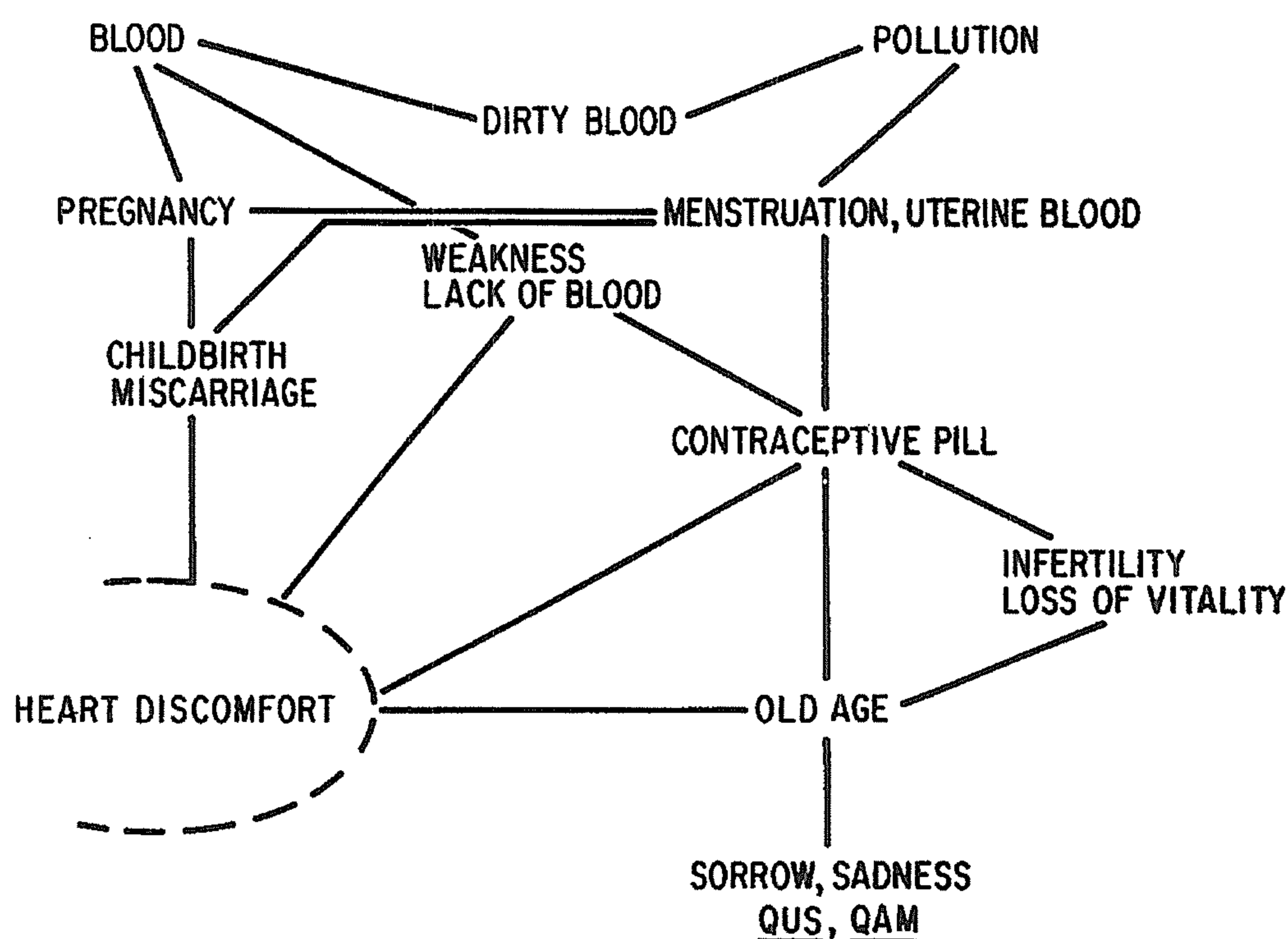


Fig. 2. Female sexuality: Potency and pollution.

climate; and a variety of specifically named diseases. These causes clearly indicate a wide set of feelings and social situations associated with heart distress. By tracing the semantic links between the elements of this array, semantic fields that are associated with clusters of experience and with more basic structural elements of the society emerge from a long list of causes.

The two most important fields of symbols and experience which emerge may be called 'the problematics of female sexuality' and 'the oppression of daily life'. These two semantic fields are outlined in Figures 2 and 3 and are described in the following several pages. They were developed by noting first the semantic links between causes given for heart distress (Figure 1), then the common associations which extend the meaning of the linked terms. (For example, the *contraceptive pill* is said to make a woman appear *old*, and both are associated with *infertility*.) Such associative links are taken from informants' statements, complaints of symptoms, or explanatory models from popular medicine, and are joined together in the semantic networks outlined.

#### 4.1. Female Sexuality: Potency and Pollution

Women in Maragheh often complain that taking the contraceptive pill causes them a variety of distresses, most commonly that it causes heart palpitations and

heart distress. Women also believe that it causes spotting between periods or reduced menstrual flow. They complain that the pill causes them to feel weak (*za'if*) and 'lacking in blood' (*qansiz*), to have shaking hands, and to have problems of upset nerves. And they believe it causes a woman's milk to dry up (and so should be avoided during nursing), that it dries up the womb and reduces fertility.

It can be seen that the contraceptive pill is associated with several of the other causes given for heart distress, forming the following semantic links (see Figure 2). *Heart distress – contraceptive pill – menstrual blood – pollution*: All menstrual blood is ritually polluting (*najes*). The pill is sometimes used during the month of fasting (Ramazan) or during the Pilgrimage (Hajj) to prevent menstruation and pollution, which would spoil the fast or the Pilgrimage. Spotting between periods is a serious side effect of the pill because it causes pollution, making prayer (*namaz*) or sexual intercourse impossible. *Contraceptive pill – weakness – menstruation*: Women complain that the pill makes them feel weak, which in vulgar Galenism is equated with insufficiency of blood.<sup>9</sup> Menstruation also causes weakness. "It is the nature of women to be weak", we were told, in part because they regularly lose blood through menstruation. *Childbirth – uterine blood – contraceptive pill – pollution*: Abortion and miscarriage, pregnancy and normal delivery are perceived causes of heart distress and are related to the pill because each involves polluting uterine blood. After delivery a woman is ritually unclean (*najes*); she goes to the bath for her ritual washing (*ghosl*) on the tenth day, but is not ritually pure (nor allowed to have sexual intercourse) until after her ritual bath on the fortieth day. The blood of childbirth (or miscarriage) is one of the ten or twelve categories of *nejasat*, items which are ritually polluted or unclean, a set which includes feces, urine, and the sweat of sexual exertion.

*Pregnancy – menstrual blood – dirty blood – contraceptive pill*: Menstrual blood is believed to be 'dirty blood' (*kasif qan*), which produces darkness of the skin and aches of the body and which should be relieved through scarification or leeching. [Dirty blood is a popularization of the Galenic theory of morbid atrabilious humor, which, when present in the blood, should be expelled through venesection (Ibn Sina 1930:503).] The contraceptive pill may cause reduced menstrual flow and thus illness due to dirty blood. I inquired of one woman whether pregnant women, who have no menstrual bleeding, are ill from dirty blood. "For the first several months of pregnancy the mother often feels very uncomfortable", she pointed out to me. "But after that time the child in the womb grows large enough to begin drinking the blood. For this reason the mother often feels better during the later months of pregnancy." Another woman reported that she did cupping with bleeding (*hajamat*) during the seventh month of her pregnancies so that the children would not be so dark (*qara*).

Light-skinned children are more beautiful, and dirty blood leads to darkness of the face. The conceptual model of the baby consuming the dirty blood also seems to be confirmed by the old tradition of bleeding a baby during the first several months after it is born. Tiny cuts were made on the top of the head and on the joints to rid the baby of dirty blood, presumably obtained from the mother's womb. (This tradition is remembered as common in the past, but seldom practiced today.) Thus pregnancy and childbirth, weakness, and the contraceptive pill are linked semantically and in the experience of women to dirty blood and illness and to menstrual blood and pollution.

*Contraceptive pill – infertility – old age:* Use of the contraceptive pill is also a threat to fertility and to the normal mothering function of producing milk. The contraceptive pill is used to prevent pregnancy and on occasion to attempt abortion. It is a general threat to fertility, and women believe that one should have her children before she risks taking the pill. The explanatory model of conception is relevant here, for uneducated women have no general notion of the production of ova that combine with the sperm to produce children, and of the pill preventing ovulation. While there is no single clear model, it is generally believed that the sperm lodges in the 'vessel' of the woman and grows to become the foetus. Contraception then may involve some harm to the womb, which makes it an inhospitable environment for the sperm to rest. As a threat to vitality and fertility the contraceptive pill is linked to old age, to menopause (when women lose their fertility and sexual potency), and to the stage of life when one's constitution grows cold and dry. This is the time of life when it is sometimes said women must fear loss of interest of their husbands and even divorce. One young university woman in Tabriz expressed several of these links explicitly: "Women here say it is very bad for a woman to have reduced bleeding during one's menstrual period [due to the contraceptive pill] because she will get old faster and her face and hands will become like a man's."

'Heart distress' thus has as one important nexus of *meaning* a complex of stresses common to the experience of Iranian women: she is sexually potent and attractive to men; her potency is dangerous and must be secluded; but her fertility and attractiveness are regularly disrupted by states of pollution and ultimately threatened by the coming of old age. The complex of female sexuality leads to a typical set of stresses which women experience and articulate as heart distress. But viewed sociologically these patterns of stress are more than a set of typical experiences; they are linked to central cultural and social structures of Iranian society. A brief outline of these structural characteristics will indicate the context for the complex which has been described.

Female sexuality is surrounded by great ambivalence in Iran. Women have almost magical potency to attract men, according to Persian folk ideology. Their hair has the power to stimulate and should be veiled to prevent random arousal

[a characteristic described by Fischer as the “‘magical hair’ component” (1975:24)]; their eyes may evoke male passion and should be averted from the faces of men outside of intimate relationships. On the one hand a woman’s potency can attract a husband, arouse in him passionate and jealous love, and earn for her rewards of his devotion, faithfulness and gold. On the other hand this potency is dangerous and must be guarded. No man except a closest relative should enter another man’s household when his wife is at home alone. Women who leave the household should be veiled and accompanied by their husband, children, or female relatives. This ambivalence is exemplified in the character of some men said to be ‘black-hearted’ (*qara qalbi*). Black-hearted men may keep their wives extremely secluded, suspecting any contact they have with other men, reacting constantly with jealousy (*hasud*). A civil servant friend of mine was known for being extremely black-hearted. When first married, he would lock his wife into the courtyard and go to the villages for days at a time on business, taking the only key with him. Such excesses are extremely confining for women, but black-heartedness is also a sign to a woman that her husband cares for her passionately, and may be a role played out with great romance.

Female sexuality is also a matter of basic cultural ambivalence in that women produce children – especially sons – for men, but the honor of men can be easily destroyed by the immodesty of women. Men can demonstrate their virility and maintain their blood line only through fertile women. (Proof of virginity before marriage and seclusion of a new bride are necessary to insure that offspring are the husband’s. As a prayer writer told me, in explaining the use of the name of a person and his mother in divination, “you can never really know who the father is”.) And if a man’s virility can only be displayed through a fertile woman, his honor can only be protected by modest women. Immodesty in his wife, his daughter, sister, or brother’s daughter (in that order) will cause a loss of face (*abir, aberuh*) and a more long-standing loss of honor (*sherafat*). Iranian women, especially in a conservative town such as Maragheh, are thus restricted by a relatively severe modesty code. Specifically, a woman should be *‘heya ve esmati’*. She should be careful not to attract the attention of men, remaining veiled and circumspect.

An immodest (*biheya*, or *yaman*) woman is ‘bold-faced’ and ‘unafraid of men’. Ideally, a woman’s voice should not carry beyond her courtyard. If a child runs outside into the street and the mother has to chase him; if a woman has to shout something and men hear her; then other people will say “*heyavu hifs ele*”, “(May God) protect your modesty.”

The women in Maragheh are thus confined within the boundaries of modesty and purity regulations. Their sexual potency is a threat to their modesty and must be jealously guarded. And their menstrual pollution is a threat to their personal piety and to the purity of the entire household. In sermons to women

during religious ceremonies and in women's conversations, my wife tells me, three topics are most frequent: wearing the *chador* (veil), proper ritual bathing (*ghosl*), and proper ritual praying (*namaz*). Thus modesty, purity, and essential religion are linked as the pillars of a proper life for women.

These broad cultural and social structures provide the framework for the complex of stresses surrounding female sexuality, which are voiced in terms of distress of the heart. The framework is not monolithic but a flexible idiom through which enormous individual, class and situational variations are expressed. It provides the structure within which the typical experiences of conflict and stress are generated, experiences we have outlined in the semantic network above. It is in this context that the complaints of heart distress and the desire to *scream out* by the woman in Case I can be understood as a protest at being segregated within the bounded confines of her courtyard and a desire to escape not merely the high walls surrounding her home but the even higher boundaries of modest behavior. A direct protest of norms of modesty and purity would of course be unthinkable, for they define membership in the social group. But the semantic network makes clear that an unspoken meaning of the woman's complaints of heart distress is the confinement entailed by social belonging in Maragheh.

#### 4.2. *The Oppression of Daily Life*

The second major complex of meaning associated with heart distress includes sadness and grieving, worry about the general conditions of life, and interpersonal conflict (see Figure 3). Both men and women attribute their heart distress to these causes.

*Heart distress – grieving – loss – Moharram – old age:* Heart distress is often said to be caused by sadness and grieving (*qus o qam*), by general feelings of melancholy, or by a specific loss or death. Excessive mourning, whether for a personal loss or as part of Moharram rituals, is dangerous to the heart.

The grieving complex and the sense of sadness is one which resonates deeply in Iranian culture. The central Shi'ite ritual during Moharram reenacts the martyrdom of Imam Hossein, beloved grandson of the Prophet, and his 72 followers on the dusty plain of Kerbala. The rites are structured specifically to make all participants and observers weep, teaching the true meaning of *qus* and *qam*. The twelve-day ritual portrays a long series of grief-filled partings, as one by one the family and followers of Imam Hossein bid farewell and go off to their martyrdom. The small nephews, the children, and finally the brother of Imam Hossein bid farewell to their mothers, sisters and kin, tear themselves away and go to the battle. At the center of the drama stands Imam Hossein, "the lonely stranger of the place of disaster", "the one enmeshed in the pain and sadness

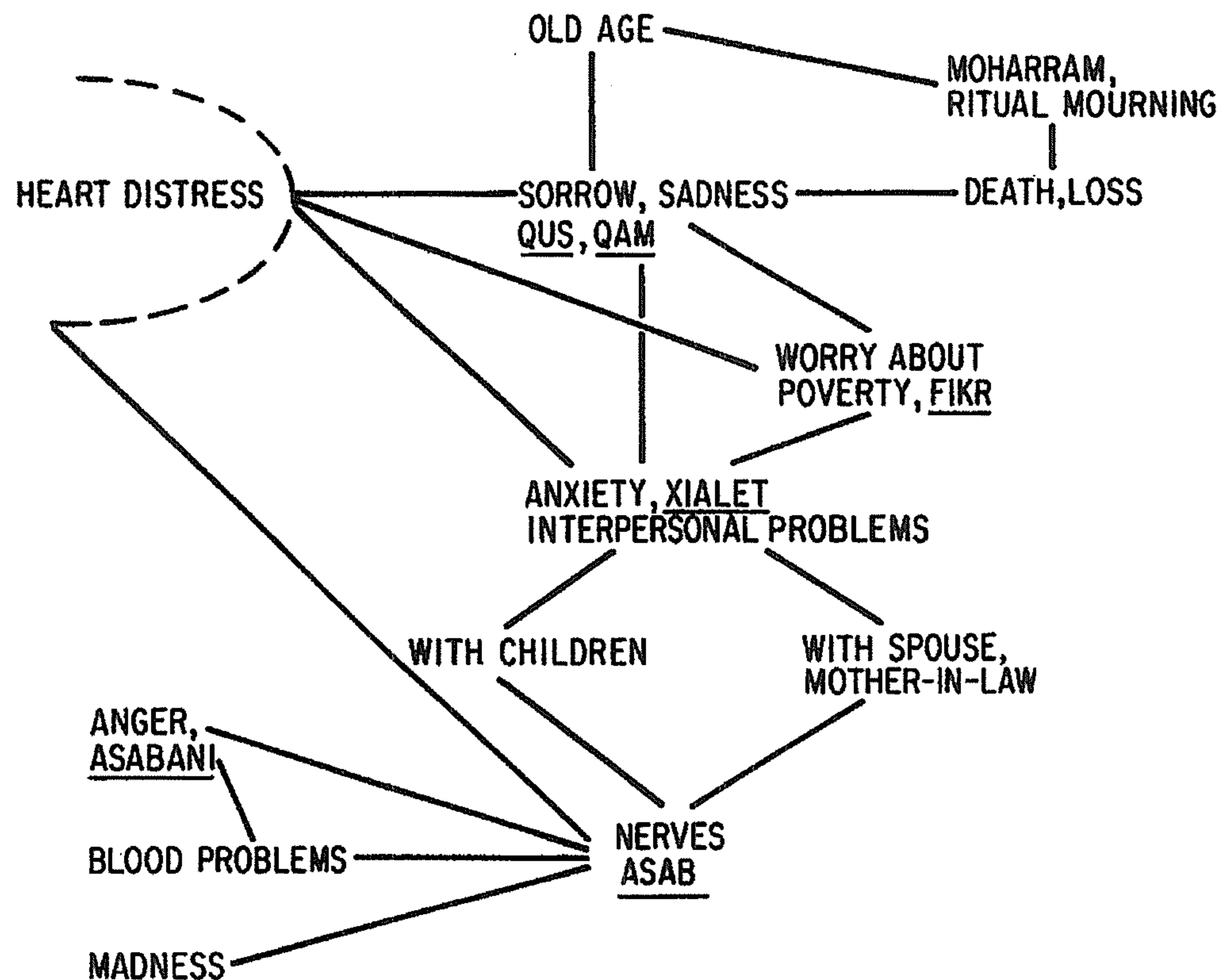


Fig. 3. The oppression of everyday life.

(*qam*) of the world”, “wandering apart from homeland and kin, . . . to be martyred on the field of Kerbala” (from a text collected in 1974). This complex of feelings, elicited and shaped during these performances, provides the model for grieving and melancholy in other contexts.

Funerals with elaborate mourning and commemorative rites or ‘black holidays’ (*qara bayram*) are regular and vivid in Maragheh. Their ritual structure, meaning, and emotional tenor are patterned and experienced in the shadow of Moharram. The experience of sadness, of *qus* and *qam*, often associated with heart distress, is an intimate part of this broader pattern. Deaths of relatives – a parent, a brother, a child – are given as the cause of heart distress. And the attendance of *mersias* (female religious mourning ceremonies), so common amongst older women, is believed harmful to one with heart problems. Thus the complex of meanings associated with *qus* and *qam* adds affective depth to the meaning of heart distress.

*Qus o qam* also has the meaning of general depression which is associated with interpersonal conflict and the anxieties accompanying poverty. *Heart distress – anxiety – interpersonal problems*: Interpersonal problems, quarrels, and fights are often perceived as the cause of heart distress. Fights between husband and wife (see Case II) and between a woman and her mother-in-law (see

Case I) were commonly given as the cause of heart distress cases in the survey. Mother-in-law conflicts are deeply rooted. The marriage ceremony enacts a spiriting away of the bride to her father-in-law's house in the middle of the night and a display of her father's unreadiness to give her up. Traditionally the bride would move into the household of her husband's parents and live under the guardianship and tutelage of her mother-in-law for several years. When the husband was financially able or when the tension in the household became too great, the young couple would finally move out to establish a new household of their own. In old age the mother-in-law would often return with her son and daughter-in-law. While there are wide variations in this broad pattern, it still provides the framework for the stresses upon many married women. Of those in our survey, the husband's mother lived in 24% of the households, husband's father in 28%, and wife's mother or father in less than 2% of the households. The experience of the stress of these situations is often articulated (by men as well as women) both in terms of heart distress and of nervous problems.

*Heart distress – interpersonal problems – nervous disorders – blood, madness:* Heart distress in tense interpersonal situations is often closely associated to complaints of upset nerves or weak nerves. Nerve distress (*narahatiye asab*) is most often marked by irritability and weariness or lack of patience (*hurselisiz*) in personal relations. It is believed related to blood problems: “*asabim qatishir, qan qalxdi bashima, fishar geler*” ‘my nerves are mixed up, the blood has rushed up to my head, and I am getting [high] blood pressure.’ A person with a more acute condition of nervousness is called *asabani* (*asab* = nerve, *asabani* = angry). A person who is *asabani* is quick to take offense, constantly and severely angered, and ‘hot-headed’. Such a condition may eventuate in madness. [A crazy person is *dali* (mad), *qizirmish* (heated up).]

*Heart distress – worry about poverty:* Heart distress, nerve distress, sadness, anxiety, anger – all of these can be caused or exacerbated by living in poverty. Concern about debts and worry (*fikr*) about money are often given as specific causes of heart distress. “We are poor, we don't have any money, we all have heart problems”, a worker or a lower class woman will say rhetorically. And many of the conditions associated with heart distress are more common and more severe in lower class and poverty stricken families. More persons in such families live cramped in fewer rooms, which exerts particular stress on the women of a household. And anxiety about daily survival, increasing the strain of interpersonal relations, is ever present.

This semantic network analysis is intended to define the meaning of heart distress as it is experienced by the people of Maragheh. It is not a neatly bounded ‘category’, defined primarily in distinction to other categories. ‘Heart distress’ is used sometimes to name an illness, sometimes as a symptom, sometimes as a cause of other illness. And it shares a great deal of the same



meaning as several other forms of 'distress' (*narahati*), such as nervous distress or fright. But heart distress has a unique configuration of meaning, which we have outlined as a symbolic network which only partially overlaps those of other illnesses. An awareness of this semantic network should allow an observer (or a therapist) to quickly formulate hypotheses about the problems facing a patient who says "my heart is in distress". This semantic analysis also allows us to answer the question which first led us to investigate heart distress while we were in the field: Why does the contraceptive pill lead to heart palpitations? Why the *heart* more than the head, stomach or nerves? The answer is that the contraceptive pill is associated with a variety of concerns — menstruation, infertility, attractiveness, sexual intercourse — which are a part of the network of meaning of heart distress, linked semantically more closely to the heart than to the head, stomach, or nerves. The contraceptive pill raises certain anxieties which are most commonly articulated as heart distress. This may in turn focus the attention of the user on the sensation of the heart beat and increase her anxiety. But rather than voicing her anxiety over these specific concerns and the general stresses of female sexuality, she expresses her anxiety in somatic terms.

In conclusion, the meaning of 'heart distress' is not some disease entity in the 'real world' to which the term points, nor is it simply a set of discriminations along culturally specified dimensions that set it off from a set of other illness terms. Nor is the meaning of heart distress a particular strain at the level of social structure, although it is linked to complexes of social strains. Heart distress is an image which draws together a network of symbols, situations, motives, feelings, and stresses which are rooted in the structural setting in which the people of Maragheh live. It is one element in a language or idiom of illness, in what Foucault calls 'an order of discourse' (1970). Heart distress is a public, collective project, a collective representation, with fields of meaning which extend beyond the consciousness of any individual at any given time. But while not explicitly recognized, these extended associations give meaning and depth to the experience for a man or woman who is possessed of a disturbed or unruly heart.

##### 5. THE COMMUNICATIVE CONTEXT OF HEART DISTRESS: FAMILY AND THERAPY

I have been arguing that the meaning of an illness term is not constituted simply by its relationship to a 'disease', whether defined as a set of characteristic symptoms or as a physiological state. The meaning of an illness term is rather constituted by its linking together in a potent image a complex of symbols, feelings, and stresses, thus being deeply integrated into the structure of a community and its culture. And the meaning of an illness term is constituted as it is used in social interaction to articulate the experience of distress and to bring

about action which will relieve that distress. It is in the purposive use of medical language in particular institutional and communicative contexts that semantic networks are generated and change. Careful analysis of the use of the language of the heart in social interaction would help us to understand how the articulation as 'heart distress' of those particular configurations of stress I have described is effective in bringing about relief to the sufferer. Here I can only make a few suggestions.

Heart distress is primarily a self-labeled illness, rather than one for which diagnosis is necessary. While a person with heart distress is not typically exempted from ordinary role obligations, certain privileges are extended to a person who is recognized as *legitimately* suffering from a heart ailment. First, the sufferer can expect expressions of sympathy and concern in response to his/her complaint. Many times this is the only privilege or treatment granted. (Twenty-one percent of the cases in our survey were reported as having received no treatment.) Secondly, if the illness is recognized as more severe, the patient may receive some form of medical treatment: first a herbal medicine, then a drug, and finally a trip to visit a physician. The most common treatment by physicians is the prescription of vitamins (especially a B vitamin injection) or some form of tranquilizer (commonly valium). Thirdly, a person suffering from heart distress may be able to make demands on members of the household for behavioral changes. These privileges will be granted, however, only if the complaints are recognized as legitimate. It is precisely in this reciprocal process of the labeling or legitimation of the person as ill and the granting of privileges to the patient that negotiations occur.

Our cases exemplify this process. Mrs. B. resented her husband's activities, which were symbolic of a traditional or backward life style. Smoking opium, drinking vodka, gambling large sums of money, and spending hours loafing with friends are all status symbols used to characterize the decadent style of life of the traditional landlords and merchants in Maragheh. Unlike her husband, who came from this class, Mrs. B. was upwardly mobile from the traditional to the modern middle class. She saw her husband's behavior not only as a threat to his health but as a threat to the achievement of the status which she sought for herself and their children. Mrs. B.'s pointed jokes about her husband's laziness causing her heart aches were a direct expression of this feeling. And her early complaints of heart distress can be understood as efforts to negotiate changes in his behavior through the rhetorical use of illness language. Mrs. B. was given sympathy, medication, and visits to the doctor, but it was only when her illness became much more severe — a serious 'nerve disease' (*maraze asab*) — that she was able to negotiate changes in his style of life.

The first case, that of Mrs. Z., illustrates less dramatically the use of the idiom of heart distress to negotiate changes in a family's pattern of interaction. But it

is also typical in this way, for many of the stresses underlying heart distress are unalterable, based in the broader structural context in which the whole family lives. Mrs. Z. and her children lived in two crowded rooms along with her husband and his parents because the family was poor. This basic cause they were powerless to change. Using somatic language, Mrs. Z. was able to voice her discontent and gain sympathy from her neighbors and the other women of the household, even from her mother-in-law with whom she constantly fought. Complaining of her condition to her mother-in-law and other women while her husband sat listening in the next room, she was able to ally the women, including her mother-in-law, as a means of influencing her husband. While there was little that he could do about the condition in which she lived, he was able to take her out to visit a doctor occasionally and buy her the prescribed tonics. In one case she was able to force her husband to make a more specific change. Mrs. Z. felt seriously conflicted between the fear of having more children and her anxiety about taking the contraceptive pill. When the pill caused her to become ill, she was able to coerce her husband to take responsibility for contraception himself.

Medical specialists play a minor role in this process. Physicians are most often consulted for heart distress, but being trained in cosmopolitan medicine they consider heart distress to be neurotic, as opposed to somatic, and thus not a *real* disease. Some young physicians in Maragheh recognize the need to allow a heart distress patient to talk about her problems. But the most common reaction is to listen to the patient's heart with a stethoscope, tell the patient "it is nothing, only your nerves", then prescribe a tonic or tranquilizer. This interaction, an example of the very limited patient-physician contract in Iran (Good 1976b), in no way begins to unpack the meaning of the complaint, to lead the patient and her family to a conscious understanding of the dynamics of the illness. The trip to the physician and the purchase of drugs do serve a therapeutic function: the patient is allowed a trip out of the house and is shown special concern. It also inadvertently serves to legitimize the patient's complaint. While the physician's pronouncement — "it is your nerves" — may simply be further mystification, his statement along with the prescription of drugs serves nonetheless to legitimize the patient's role and give her some additional support in her use of the illness to manipulate the social situation.

This perspective suggests questions for further research. For example, it is my impression that there is a general hierarchy of resort in the use of medical idiomata in Iran to manipulate social situations. Heart distress is a relatively passive mechanism. The condition of being *asabani* ('angry', a state of unusual irritability and quickness to fight with others) and the quarrels which it generates is a more active mechanism, directed more clearly at the objects of the distress. Threatened or attempted suicide is a third resort and may be

consciously used to manipulate unbearable situations.<sup>11</sup> It is used, for example, by recently married girls who are being abused by their husband and in-laws in an attempt to force their parents to allow them to return home and ultimately to force a return of the bride price paid in the marriage. Thus the relationship outlined between medical language, its purposive use in culturally defined contexts, and the semantic networks that provide its meaning suggest hypotheses which may be pursued in further research.

## 6. THEORETICAL IMPLICATIONS

"Then you should say what you mean", the March Hare went on. "I do", Alice hastily replied; "at least – at least I mean what I say – that's the same thing, you know." "Not the same thing a bit", said the Hatter.

Lewis Carroll, *Alice's Adventures in Wonderland*

In this exchange, the Hatter points out to Alice that meaning resides not merely in words but in the intentionality of the user of language.<sup>12</sup> We *can* mean something different than what we say. Meaning is *not* constituted by a word-to-object link with empirical reality. It has been the argument of this paper that a good deal of talk about disease assumes what we might call the empiricist theory of medical language. I contend that for cross-cultural studies *and* for medical practice such a perspective is grounded both in an inappropriate theory of disease and an inadequate theory of meaning in medical language. And I claim the Mad Hatter a witness to this position.

This argument can be made more specific. Cross-cultural studies, ethno-scientific analyses in particular, are often based on the following implicit assumptions:

1. Diseases are discrete pathological conditions, which can be adequately described in biochemical and physiological terms.
2. These diseases are categorized differently in different societies, using various discriminating principles; and culturally varied causal explanations are attached to each category.
3. Because of the culturally constructed categorization and explanation of a particular disease, individuals experience the disease differently from one society to the next.

While this is a powerful model which can claim to account for the social and cultural construction of illness, two important implications should be noted. First, it implies that there exist discrete diseases in the natural order that can be ultimately reduced to a set of physiological or biochemical conditions. Secondly, it implies that various societies have a set of conventional disease labels that can be mapped onto the objective diseases. The *meaning* of the label is its

*designatum*, the disease to which it points. Its meaning is thus essentially free of social context and free of the perspective of the user.

This general framework is parallel to that described by Harrison as “the empiricist theory of language” (1972).<sup>13</sup> Very briefly, this theory holds that language consists of basic and non-basic utterances, and that it is only through basic utterances that meaning enters a language. Meaning attaches to basic utterances through a *conventional* stipulation “that a given language element shall henceforth be associated with a given world element” (1972:33). Concatenation of basic utterances depends first then upon “how the world is, as a matter of empirical fact, constituted” (1972:33). Children learn language and the meaning of signs by inductively and ostensively learning which elements of language are conventionally associated with which elements of the world (semantic rules). They learn to combine or refrain from combining certain signs with each other by inductively learning syntactic rules, rules concerned solely with ‘relationships between signs’ (1972:33).

This theoretical perspective also provides the framework for much of American anthropology in the past several decades. Greenberg formulated this framework in an influential paper in 1964. He began with two sets of distinctions made by the semiotician Charles Morris: that between syntactics, semantics, and pragmatics; and that between the user of the sign, the sign itself, and the *designatum* (Greenberg 1964:27). Combining these, he suggested the bounds of anthropological and linguistic investigation.

If we include reference to the users of the language we are in the field of pragmatics. If we abstract from the user of language and consider only expressions and their *designata*, we have an investigation in semantics. If we abstract also from the *designata* and study only the relations between the expressions themselves, we have syntax.

Greenberg 1964:27

This formulation, as the empiricist theory of language, defines semantics as the study of the relationship between signs or linguistic categories and their *designata*. Semantic analysis is thus set off from the study of linguistic actors, the contexts of verbal behavior, and the pragmatics of communications, all of which belong to the domain of sociolinguists and the ethnography of communications. Ethnosemantics, including the ethnoscientific study of medical language, makes precisely these assumptions.

Several fine ethnosemantic analyses of disease categories, including those by Frake (1961) and Fabrega and Silver (1973), illustrate the cultural variability of the distinctive features used in disease categorization. They assume, however, that the association of symptoms with each other in a category should reflect simply their association in the objective world. Unexpected configurations are thus inexplicable (e.g., Fabrega and Silver 1973:101). Further, disease categories

with the same set of dimensions are said to “seem to have equivalent meaning”, and those sharing one common dimension are said to form “groups of illness”, with no further evidence that they are associated semantically or in the experience of the members of the society (Fabrega and Silver 1973:106). These studies thus even have problems explaining what they claim as their particular domain – the grouping of symptom or illness terms into associated clusters in a particular society.

A theory of medical language should help us understand the process by which language and communication are effectively related to feelings and physiology, to understand what Kleinman calls the “symbolic pathway of words, feelings, values, expectations, beliefs and the like which connect cultural events and forms with affective and physiological processes” (1973:209). Only such a theory can provide a sound basis for cross-cultural research and for medical practice which takes into consideration the psychosocial aspects of illness. A theory of medical language should provide a framework for understanding the following aspects of medical language and communications:

1. *The pathways linking the symbolic with the affective and physiological;* Clearly, a ‘copy model’ of the type compared by Wittgenstein to a museum filled with exhibits, each with its own label, is inadequate. Physiological states do not have simple linguistic correlates, as studies of affect have shown (e.g., Schachter 1971; Valins 1970). The degree to which disease itself is shaped by symbolic and social experience is a matter for empirical research. But an adequate conceptual framework should *make problematic* precisely those symbolic links that might affect such variability, rather than assuming diseases to be like trees to which one can only append names.

2. *The role of language in linking social experience to diseases;* We know that many disorders are the result of maladaptive behavior and are directly linked to the typical stresses of the society through the experience of the patient. Illness thus must be understood to have its meaning in a social context, and analysis must make problematic the role of the experience of illness (its meaning to the patient) as a link between typical stresses in the society and disease process.

3. *The strategic use of illness language;* Illness language is used strategically by individuals in a variety of interaction settings: in a home care setting in which a mother comforts a child; in a setting of conflict, e.g., when a wife uses illness to manipulate her husband; in a patient-practitioner interaction. In each of these settings the ‘meaning’ of illness terms is dependent upon the perspective and ‘structure of relevance’ of the various actors. An adequate semantics of medical language should focus our attention on the creation of meaning in the context of interaction and upon the problems of communication between actors who use words with differing structures of meaning.

4. *How change in medical language is generated in broader social change.*

Change in cognitive systems understood as the placing of new tags on old meanings or as the application of an old classification scheme to new objects (Basso 1973) is clearly inadequate for understanding medical change. If illness terms are associated with typical experiences of stress in a society, changes in medical language will be intimately related to more basic changes in the society. As new medical terms become known in a society, they find their way into existing semantic networks. Thus while new explanatory models may be introduced, it is clear why changes in medical rationality seldom follow quickly.

In conclusion, if we are to develop a framework for understanding the relationship between disease and language that will advance our knowledge of the way psychosocial and cultural factors affect disease, we need to develop both new theories of disease and a new medical semantics. Disease will have to be conceived, as Wartofsky claims, as "a socio-historical and cultural phenomenon" (1975:67), as "an intricate and many-layered network of social, personal and organic contexts — from society to cell, so to speak — in which the doctor intervenes at specific points, diagnostically and therapeutically . . ." (1975:79–80).<sup>14</sup> And a corresponding semantics is necessary that understands the meaning of medical language to be constituted in relation to disease as semantic networks, configurations of symbols and experiences mobilized in social interaction and deeply integrated into the social and cultural structure of a society.

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#### NOTES

1. An earlier form of this paper was delivered to the Harvard Research Seminar on the Implications for Health Care Delivery of the Cross-Cultural Study of Health, Illness and Healing, October 1975. The author wishes to acknowledge his indebtedness to members of that group.
2. Research for this paper was carried out jointly with Mary-Jo DelVecchio Good from 1972 to 1974. Research was supported by a USPHS Traineeship and a grant from the Pathfinder Fund. Ms. Good is responsible for much of the case material upon which this paper is based.
3. Details of these three medical traditions and their practice in Maragheh today can be found in Good (1976a, 1976b). In the use of the term 'cosmopolitan' medicine rather than modern, scientific, or Western, I follow Leslie (1976:5).
4. See, for example, Bürgel (1976), Levey (1967), and Nasr (1968)..
5. In use of the term 'explanatory models', I follow Engelhardt (1974) and Kleinman (1975).
6. There was little significant variation by social class in the cause attributed to heart distress.
7. This description is drawn from Galen (1968), May (1968), Shaw (1972), Siegel (1968), Wilson (1959), and Levey (1967). For a fuller discussion see Good (1976a:Ch. IV).
8. For a fuller discussion see Good (1976a:Ch III) and Nasr (1968).
9. "Some think that strength of body depends on abundance of blood; that weakness is

associated with paucity of blood. But it is not so. It is rather this, that the state of the body determines whether the nutriment will be beneficial to it or not." (Ibn Sina 1930:87)

10. It may be noted in passing that use of the idiom of the heart is common throughout the Middle East. For example, Waziri (1973:215) notes that many depressed patients in Afghanistan "described their feeling 'as if a strong hard hand was squeezing' their 'hearts' . . . This was the most stressed symptom from which the patient wanted relief." Analysis such as I have suggested would reveal similarities and differences in the Afghan and Iranian cases.
11. The matter of suicide in Iran deserves extended research. In the internal medicine hospital in Maragheh, which usually handled emergency suicide attempt cases, 18% of all patients admitted (117 of 654 cases) in the year 1352 (1973-74) were attempted suicide cases.
12. This passage from *Alice's Adventures in Wonderland* is quoted by Palmer (1976:4) to illustrate different uses of the term 'meaning'.
13. The critique of the empiricist theory of meaning which I outline here is argued in great detail by Beeman (1976). Other recent critiques include Wagner (1975:145-151) who argues that the 'natural order' is an invention of culture, and that ethnosemanticists have taken "plants, animals, colors, kinship, skin diseases [as] in some way 'real' and self-evident *things*"; and Polanyi and Prosch (1975), who argue for the necessary role of the intentional subject in the constitution of all meaning and knowledge.
14. Kleinman, Eisenberg and Good (1976) suggest clinical applications of such a broadened perspective on illness and disease phenomena.

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