ical communication and indeed because it is largely responsible for creating them. What obviously is needed on the level of day-to-day patient care is a model that recognizes this central hermeneutic question and that offers a feasible strategy that can be routinely applied in the clinical encounter.

In sketching the applied interpretive problem embedded in clinical communication, its theoretical counterpart in cross-cultural studies of the core clinical functions of health care systems also is illuminated. Here the chief question is *how to compare the systems of medical knowledge and praxis constituted by and expressed in the different sectors of health care systems*.

Resolution of this problem requires a framework that allows the investigator to place various cognitive systems side by side. Juxtaposition permits comparative study of a variety of systems of medical beliefs, from the concepts of scientific medicine through those of other professional medical forms to folk beliefs and "commonsense" popular ideas. For local health care systems in Taiwan, such a framework would compare the categories of Western medicine and traditional Chinese medicine with the functioning systems of beliefs of popular health care and sacred and secular folk medicine. For the United States, we would compare the clinical rationalities of scientific medicine, popular health care, and alternative professional and folk medical traditions, including osteopathy, chiropractic, Christian Science, and the like. In order to get at clinical praxis, however, such a framework would need to go beyond meaning systems, inasmuch as systems of norms and sociopolitical power also constitute and are expressed in clinical communication and other core clinical tasks.

In the next section, I shall describe a model I believe meets these requirements. This approach does not pretend to be a definitive framework for conducting cross-cultural and cross-sector comparisons, but it does address the central hermeneutic problem on both practical and theoretical levels.

EXPLANATORY MODEL FRAMEWORK

I have found it useful to distinguish explicitly the *explanatory models* (EMs) held by individual patients and practitioners and anchored in the separate sectors and subsectors of health care

systems (see Kleinman 1975a, 1976, 1977b). Explanatory models are the notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process. The interaction between the EMs of patients and practitioners is a central component of health care. The study of practitioner EMs tells us something about how practitioners understand and treat sickness. The study of patient and family EMs tells us how they make sense of given episodes of illness, and how they choose and evaluate particular treatments. The study of the interaction between practitioner EMs and patient EMs offers a more precise analysis of problems in clinical communication. Most importantly, investigating EMs in relation to the sectors and subsectors of health care systems discloses one of the chief mechanisms by which cultural and social structural context affects patient-practitioner and other health care relationships.

The field notes at the beginning of this chapter contain observations relevant to differences between explanatory models. They differ in analytic power, level of abstraction, logical articulation, metaphor, and idiom. They are embedded in larger cognitive systems, which in turn are anchored in particular cultural and social structural arrangements, i.e., the health care system's sectors and subsectors. They lead to therapeutic options that are dissimilar (sometimes markedly so) in technological sophistication and actual therapeutic efficacy.

Explanatory models are held by patients and practitioners in all health care systems. They offer explanations of sickness and treatment to guide choices among available therapies and therapists and to cast personal and social meaning on the experience of sickness.

Structurally, we can distinguish five major questions that EMs seek to explain for illness episodes. These are: (1) etiology; (2) time and mode of onset of symptoms; (3) pathophysiology; (4) course of sickness (including both degree of severity and type of sick role—acute, chronic, impaired, etc.); and (5) treatment. EMs differ in the extent to which they attempt to answer some or all of these concerns. Practitioner models (even if they are not transmitted to patients—and frequently they are not) answer most or all of these questions, whereas patient and family models address what are regarded as the most salient

concerns. Lay explanatory models disclose the significance of a given health problem for the patient and his family, along with their treatment goals.

Explanatory models need to be distinguished from *general* beliefs about sickness and health care. As we have seen, such general beliefs belong to the health ideology of the different health care sectors and exist independent of and prior to given episodes of sickness. EMs, even though they draw upon these belief systems, are marshalled in response to *particular* illness episodes. They are formed and employed to cope with a specific health problem, and consequently they need to be analyzed in that concrete setting. In practice, laymen either do not volunteer their EMs to health professionals or, when they do, report them as short, single-phrase explanations because they are embarrassed about revealing their beliefs while in formal health care settings. They fear being ridiculed, criticized, or intimidated because their beliefs appear mistaken or nonsensical from the professional medical viewpoint.[4] Patient and family EMs often do not possess single referents but represent se-

4. As a result, EMs are much more easily elicited in patient's homes by a researcher who is not involved in the delivery of medical care to the patient and who expresses a genuine, non-judgmental interest in the patient's perspective. Ethnoscientific elicitation procedures are useful to avoid contaminating informant EMs with the researcher's own beliefs (for example, Fabrega 1971; Fabrega and Silver 1973; Metzger and Williams 1963). Not infrequently, patient EMs differ when elicited in clinical setting and at home. The latter usually represent a more accurate and full disclosure of the patient's model. Nonetheless, EMs can be elicited in clinical settings if health professionals are persistent and demonstrate a genuine, non-judgmental interest in patients' beliefs and, what is more, express the conviction to patients that knowledge of their EMs is important to plan an appropriate treatment regimen. In clinical settings, I have found it useful to ask general, open-ended questions about patients' EMs first. If these prove unrevealing, the following questions are helpful in eliciting the details of patient explanatory models:

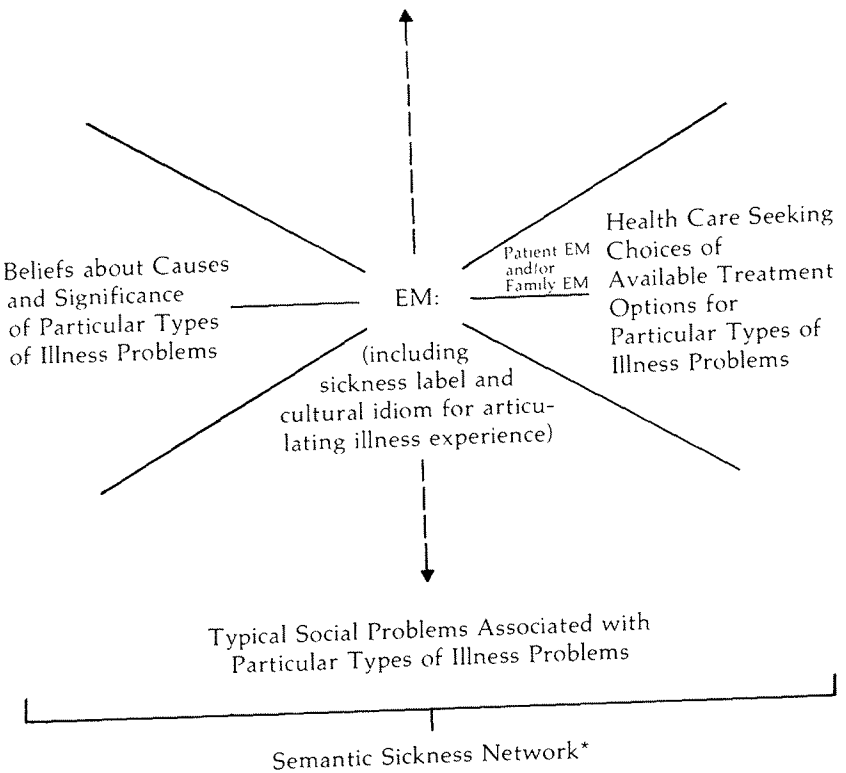
1. What do you call your problem? What name does it have?
2. What do you think has caused your problem?
3. Why do you think it started when it did?
4. What does your sickness do to you? How does it work?
5. How severe is it? Will it have a short or long course?
6. What do you fear most about your sickness?
7. What are the chief problems your sickness has caused for you?
8. What kind of treatment do you think you should receive? What are the most important results you hope to receive from the treatment?

mantic networks that loosely link a variety of concepts and experiences (Good 1977). For example, in Chapter 4 we discuss illness terms that are part of popular EMs in Chinese culture that connect expectations about the symptoms and psychological processes typically associated with particular illness categories, along with beliefs about their cause and significance, with specific kinds of interpersonal problems and social tensions also held to be typical concomitants or precipitants of these illnesses. These semantic sickness networks draw upon beliefs about causality and significance to make available particular treatment options; they enable instrumental and symbolic therapies to be used together without concern about mixing or confusing concepts from very different sources. Within the semantic networks of the popular health care sector, EMs interrelate illness beliefs, norms, and experiences and function as the clinical guides to decisions that we have called "hierarchies of resort" and "structures of relevance" (see Figure 4). Thus, from the ethnomedical perspective, it is the EM and the semantic sickness network it constitutes and expresses for a given sickness episode that socially produce the *natural history of illness* and assure that it, unlike the *natural history of disease,* will differ for different health care systems.

To analyze popular EMs into the five categories enumerated above is to attribute more formal organization and specificity to them than they usually possess. Vagueness, multiplicity of meanings, frequent changes, and lack of sharp boundaries between ideas and experiences are characteristic of lay EMs. The idioms, metaphors, and logics they employ are substantially different from those of scientific medicine. For example, rather than the single causal trains of scientific logic, popular EMs may involve symbolic connections like those of traditional Chinese medical thought: a logic of symbolic balance and resonant harmonies. Even the logical principles of "identity" and "contradiction," so fundamental to formal reasoning, may be contravened in popular EMs. Obviously, ethnicity, social class, and education influence choice of metaphor and idiom (cf. Apple 1960; Campbell 1975; Elder 1973; Mabry 1964).

The metaphors used to articulate both patient and practitioner EMs disclose substantial cultural patterning. Popular and professional EMs in the West, for example, are saturated

Figure 4
Popular EMs, Semantic Networks, and Health Care Seeking



*Also referred to in the text as semantic illness networks.

with the metaphors of war: "fighting" infection, "vanquishing" disease, "invaded" by pathogens, immunological "defenses," and so forth. Battle metaphors appear in the Hippocratic Corpus and can be traced through the Gallenic tradition to the present. They are by no means universal, however. The imagery of the body as a machine and the related mechanistic version of sickness also are indigenous to the West, at least since the Enlightenment. Taiwanese popular EMs frequently

employ the metaphor of persons being "hit" (*ch'ung, chhiong-tioh*) by ghosts, either purposefully or inadvertently, and thereby becoming ill.

Practitioners present their EMs to investigators more freely than do laymen. The ease with which they are elicited reflects the practitioner's role as the purveyor of expert knowledge, as well as his tendency to dominate clinical interactions with laymen. Models elicited by researchers from practitioners, in my experience, tend to be considerably different from those actually transmitted to patients or used to make day-to-day clinical judgments. Thus we can divide practitioner EMs into theoretical and clinical types. The latter must be inferred from observing practitioners in practice and by systematically recording what they communicate to patients. This point requires emphasis: most anthropological research on practitioners has relied on what the practitioner *tells* the researcher about a type of illness or a particular patient's disorder. This is not an adequate determination of functioning clinical rationality. Much that has been written about practitioners, especially folk practitioners, is distorted by this error or because investigators who observed practitioners at work inferred their reasoning without systematic inquiry. Even less research of this kind has been carried out with practitioners in the West than is available in the cross-cultural literature.

An explanatory model is partly conscious and partly outside of awareness. It is based on a cognitive system that directs reasoning along certain lines. Since EMs involve tacit knowledge, they are not coherent and unambiguous. In responding to an illness episode, individuals strain to integrate views in part idiosyncratic and in part acquired from the health ideology of the popular culture. Hence, it is characteristic of EMs that they undergo change fairly frequently. Popular EMs often use symbols whose referents the individual may not be aware of and whose treatment options he may not fully understand. The "diffused" nature of popular medical knowledge contrasts to the "institutionalized" nature of professional and specialized folk medical knowledge. For this reason popular EMs are rarely invalidated by experience. They are plastic enough to cover a wide range of experiences and imprecise enough not to be refuted by specific happenings (cf. the discussion of Zande divi-

nation in Evans-Pritchard 1937). Finally, the degree of commitment to EMs varies among individuals.

Practitioner EMs and popular EMs are alike in many ways. For instance, practitioner EMs are largely tacit. They are not likely to be formulated as testable hypotheses, as official teaching would have us believe. Rather they may be the product of circumstances, impressionistic assessments to which practitioners become committed even in the face of contrary evidence. They are bound up with the practitioner's therapeutic imperative to act and his compelling need to rationalize his actions. The choice of an EM may be no more than ad hoc justification for use of one of a limited number of treatment alternatives or post hoc explanation of why the others were not tried. Consequently, the "clinical EMs" applied by practitioners need to be distinguished from "scientific EMs," which, in particular instances, they may closely approximate or diverge from greatly and might be regarded as a special type of the "commonsense" rationality found in the popular culture. In Chapters 7, 8, and 9, I will contend that the fact that practitioner EMs and patient EMs draw on the same popular rationality contributes importantly to the therapeutic process, and I will present data to illustrate how the EMs employed by clinicians frequently must diverge considerably from biomedical and other "professional" theories if they are to be practically effective. Intuitively, of course, this could also be regarded as a potential source of untoward effects and iatrogenic problems.

Explanatory models determine what is considered relevant clinical evidence and how that evidence is organized and interpreted to rationalize specific treatment approaches. Hence explanatory models are the main vehicle for the clinical construction of reality; they reveal the cultural specificity and historicity of socially produced clinical reality, regardless of whether it is based upon scientific medical knowledge. Rosen (1975) has shown, for example, how "nostalgia," which was one of the most common "psychiatric" diagnoses during the American Civil War, disappeared by the beginning of the twentieth century, when it was replaced by newer concepts (e.g., "neurocirculatory asthenia," "shell shock," "battle fatigue," etc.) to describe similar problems in the two world wars, problems in part altered in clinical presentation as well as interpretation by the norms and meanings these sickness

categories expressed. Wartofsky (1974) has demonstrated how biomedicine's understanding of diabetes changed over the past few decades and may have constituted clinical data in keeping with the theories prevailing at a given time. The now well-known story of how Charcot's patients with "la grande hysterie" imitated the "classical" signs and symptoms of that disorder, which he had come to expect of them and which he regularly "elicited" from them, further indicates how EMs may come to create the behaviors they seek to explain (Eisenberg 1977).

Taking as our starting point the special form health care relationships have taken in the West and in modern professional medicine elsewhere, we can conceptualize the patient-doctor relationship as a transaction between EM_p (patient explanatory model) and EM_d (doctor's or practitioner's model) (see Figure 5). Pilot studies document that follow-up of such clinical transactions yields four types of *outcomes*: $EM_p + EM_d$, both the original patient model and the medical model together are held by the patient; $EM_p > EM_d$, there is systematic distortion, usually in favor of the patient's original model; EM_p or EM_d, either the original patient model or the medical model is held alone by the patient; and EM_n, a totally new model is reported by the patient, usually based on a new source of information (Kleinman 1975a). Patient explanations not infrequently can be distinguished from family explanations (EM_f), with which they may be divergent and even in conflict. The "dyadic relationship" is decidedly a special case in cross-cultural perspective, as we shall see in Chapters 7 and 8. But analysis of clinical dyads will provide us with a self-conscious instrument for looking at the ways that other health care relationships vary.

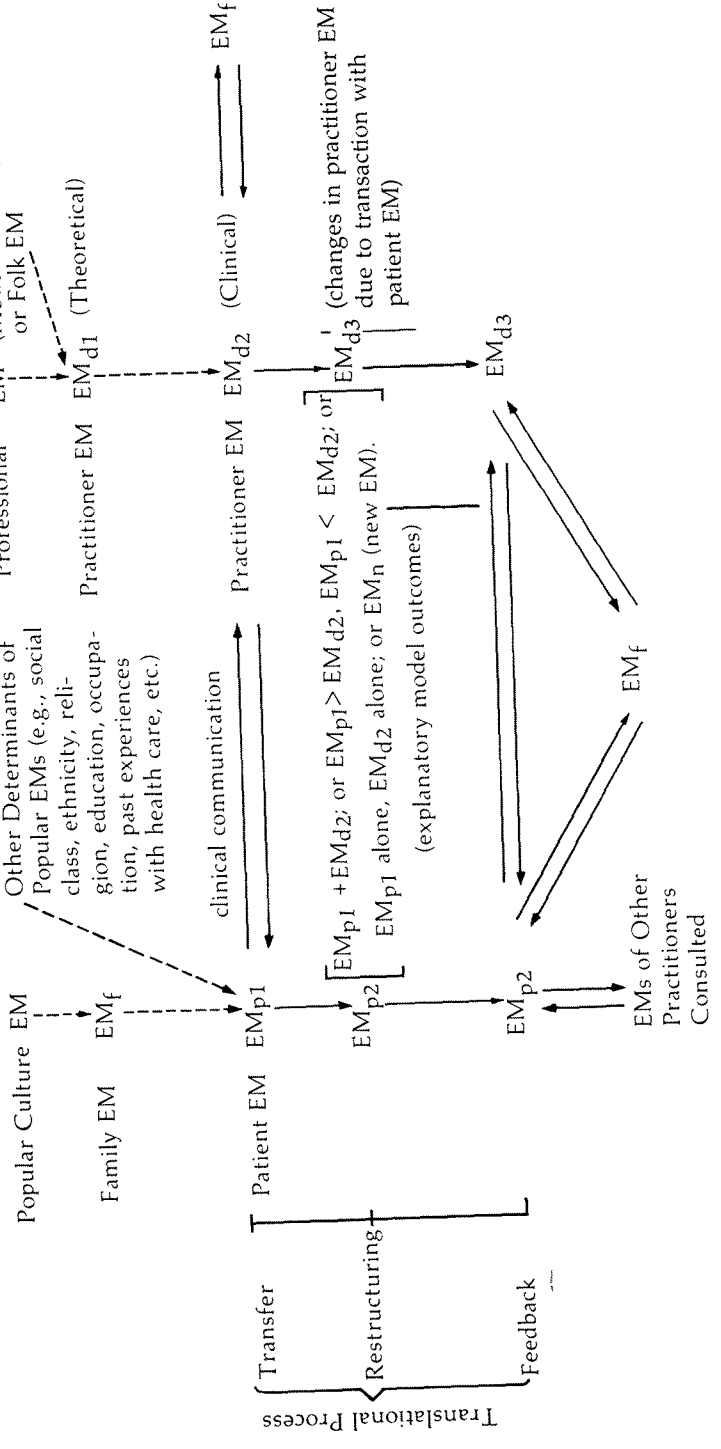
The explanatory model outcomes are the result of a transactional process that in theory might be likened to Nida's (1974) paradigm for translation between two languages, though in practice, as we have seen, actual translation rarely takes place. There is in principle a process of elicitation, followed by processes of analysis, transfer, restructuring (in the new language or EM), and feedback. Elicitation is the process by which patient or practitioner may obtain the other's EM through questioning. In clinical transactions, practitioners commonly do not elicit the patient EM but spontaneously transmit at least part

of their EM. While patients frequently do not spontaneously disclose their own EMs, they may elicit the practitioner EM. Analysis is the process by which one EM is analyzed in terms of the other. Transfer means that the analyzed EM is transferred into the other EM, which as a consequence is restructured. The restructured EM feeds back potentially to influence the EMs of other actors. Unquestionably, in our own and in other societies, practitioner EMs also change in response to patient EMs, but we know virtually nothing about that process.

By eliciting the patient EM before the doctor and patient interact with each other and then comparing that EM (EM_{p1}) with the EM the doctor transmits to the patient (EM_{d2}) for the five major questions they may concern, we can estimate the initial cognitive distance between them (Distance A = $|EM_{p1} - EM_{d2}|$) (see Figure 5). Similarly, the cognitive distance following patient-doctor interactions can be calculated by comparing the model the doctor communicates to the patient (EM_{d2}) with the model the patient holds subsequent to the interaction (EM_{p2}) (Distance B = $|EM_{d2} - EM_{p2}|$). Distance B is a rough measure of the communication between practitioner and patient. Distance A compared to Distance B will reveal the "efficacy" of clinical communication insofar as the degree to which the discrepancies are reduced or enhanced is a function of clinical communication.[5] Another measure is Distance C between the practitioner's theoretical model (EM_{d1}) and the model (EM_{d2})

5. If for each of the five major issues they cover, EM_p and EM_d are scored "0" if they agree, "1" if they reveal a minor discrepancy, and "2" if they show a major discrepancy, a range of scores can be worked out for each comparison in which models that are maximally alike are scored "0," while those that are maximally discrepant are scored "10." For example, if the patient's EM holds that being "hit" (*ch'ung*) by a ghost is the etiology of his problem, while his internist's EM holds that an infection has caused his problem, these EMs are maximally discordant for etiology and would be scored "2." Whereas if EM_p implicates a viral etiology, while EM_d articulates a bacterial etiology, then these EMs disclose only a minor discrepancy for etiology and would be scored "1." The remaining four items would be scored in the same fashion, and the sum of the scores for all five items would yield a total score for the distance separating the EMs. Using this system, we can apply a rough quantitation to the analysis of EM interactions. A 5-point scale would yield a more discriminating analysis, as would the "semantic differential" if it were applied to measure cognitive distances between EMs.

Figure 5
Dynamics of Interactions between Explanatory Models in Practitioner-Patient Relationships



actually transmitted to patients in the clinical encounter. This distance is an indicator of the clinician's ability to translate from an esoteric theoretical idiom to an idiom accessible to laymen. Change in EM_{d2} subsequent to the clinical transaction in principle also could be measured.

Distances A, B, and C are potentially important variables that deserve to be examined in future research. For example, they might be examined as predictor variables to see if they correlate with such outcome variables as patient compliance, satisfaction, subsequent use of health facilities, treatment response, and reporting of medication side-effects or other untoward effects of treatment. The kinds of hypotheses one might test using these measures are:

1. Health care outcomes (compliance, satisfaction, etc.) are directly related to the degree of cognitive disparity between patient and practitioner EMs and to the effectiveness of clinical communication. That is, where Distance A is large (and Distance B remains large), we predict poorer health care outcomes than where either Distance A is small or Distance A is large but Distance B is significantly smaller.

2. Folk practice in any given society, as compared with professional practice, involves fewer social and cultural differences between the healer and the patient, so that Distances A and B also are smaller and health care outcomes are better. Similarly, greater degrees of cultural heterogeneity will increase Distances A and B, and, therefore, worse health care outcomes should occur between matched patients from societies with high compared to low degrees of heterogeneity.

3. Where Distance C is large but Distance A is small (i.e., where the clinical explanation given the patient is not isomorphic with the practitioner's theoretical EM but is closer to popular explanations), the measures of explanatory effectiveness and health care outcomes will be better. The results of our tests for this and the other hypotheses are not yet in, but there is encouraging early evidence that simply attending to clinical communication and eliciting the patient perspective leads to

improved outcome in professional health care (cf. Inui et al. 1976; Lazare et al. 1975).

Walsh McDermott (1977) has recently argued that we do not yet possess adequate measures of either the supportive or the technological aspects of the physician's work. The EM framework suggests that there are now ways to evaluate the quality and success of at least one clinical task: communication with patients. It may prove interesting to apply this framework or some variant of it to analyze clinical communication and to compare it for different categories of practitioners and patients. Would this approach help to evaluate clinical skills acquired in medical school and postgraduate training? Might it even prove of use in assessing the clinical skills of practicing physicians and in assuring quality of care along this axis? These questions suggest that the EM framework needs to be studied in field trials.

Some illustrations drawing upon the ethnographic examples presented earlier in the chapter may clarify what explanatory models are and the functions they serve.

EMs for *ut siong* are assembled from translations and transformations of disease concepts from both Western and Chinese medicine to form, as we have seen, an illness category specific to Taiwan's popular culture. As in the case with popular health sector EMs generally, they may show considerable variation. For example, one patient who labels himself as suffering from *ut siong* might include in his explanatory model the psychophysiological complaints attributed to this disorder. A second patient might leave these out so that his EM would be limited to respiratory symptoms. As a result, these EMs for the same illness category would differ significantly with respect to pathophysiology, course of sickness, and treatment expectations. The differences could lead to different patterns of utilizing available services. The first patient might consult a sacred folk healer for treatment of the psychophysiological problems, even if he visited a Chinese-style physician for definitive therapy for *ut siong*. The second patient might consult a Western-style doctor for control of the respiratory problems, regardless of whether he, too, visited a Chinese-style physician. Similarly, the EMs

would almost certainly yield divergent criteria for evaluating treatment outcome. For the first patient, effective treatment would mean control of both psychophysiological and respiratory problems, whereas for the second patient, effective treatment would mean simply control of respiratory problems. Neither patient might claim to experience all the problems he associated with *ut siong*, even though he was committed to the belief that they *should* be present.

Both of these patients would be likely to receive legitimation of a sick role for *ut siong* from their family and friends. If they used a label (e.g., asthma or psychophysiological reaction) from modern psychiatry, they might not be granted an appropriate sick role. Moreover, family and patient EMs might attribute different etiologies to *ut siong*. The patient might attribute the cause to working too hard or insufficient exercise (secular etiologies), whereas the family might contend the cause was bad fate or a ghost (sacred etiologies). These attributions could result in conflict over choice of treatment. The patient would favor physical exercise and a decrease in or change of work. The family would call for recourse to a folk practitioner to change the sick person's fate or to drive away the ghost. Both models would also use different criteria for evaluating the treatment.

When a Taiwanese patient holding an EM of *ut siong* consults a Western-style doctor, it is unlikely the doctor will be aware of the patient's EM. The doctor will label the problem depression, or asthma, or adolescent adjustment reaction, or "functional complaints," or tuberculosis. The medical EM will lead the doctor to interpret the patient's symptoms and history in a different way, and it will suggest a particular treatment regimen, e.g., antibiotics, antidepressants, or supportive psychotherapy. These treatments will not make sense from the perspective of the patient though he might accept them, at least initially. If the doctor transmits part of his EM to the patient (most probably he will not explain anything), he may help the patient understand the treatment regimen. But the doctor's EM may be so different from the patient's that the patient will misinterpret it. The doctor almost certainly will fail to treat problems that are part of the patient's EM, but not the medical EM. For example, the patient might believe that there was an

imbalance of "hot/cold" constituents of the body with a pathological excess of "cold" that required "hot" remedies. This would be nonsense from the perspective of the doctor's model. But failure of the doctor to recognize and treat his problem would lead the patient to seek treatment from another source or reject the doctor's treatment. The latter would be especially likely if the doctor suggested the medicine he prescribed be taken with "cold" fluids, a recommendation that would appear dangerous from the patient's standpoint.

Lack of understanding of popular EMs renders Western-style doctors in Taiwan unable to recognize and respond therapeutically to typical social tensions that are associated with culture-specific sickness categories. Thus, the family's EM in the case of measles that we reviewed earlier included the notion that the patient was experiencing a special crisis which required a particular psychosocial intervention in addition to the biomedical intervention. This knowledge was not available to the Western-style doctor they consulted, and if it had been available, it is likely it would have been considered irrelevant from the perspective of his biomedical model. Thus, the family was pressed to rationalize the patient's treatment by drawing upon different treatment systems (Western medicine and sacred Taiwanese folk healing) to fulfill the requirements of their composite EM. Alternatively, it could be argued that a doctor with culturally relevant knowledge could integrate psychosocial and technological treatments—an issue we will explore further in later chapters. Figure 4 outlines how popular EMs link psychosocial and technological treatments to sickness beliefs, to culture-specific symptom patterns, and to social tensions that cannot be adequately conceptualized and treated by doctors operating with biomedical EMs.

What we have said about EMs suggests that it is reasonable to apply to them Shapin's (1977) caveat about the function of natural knowledge:

> But people are not trapped by the natural knowledge of their society. They adopt it, shape it, modify it as suits their interests. They use natural knowledge as a tool, and one of the most important tools, in processes of social suasion. In so far as that special species of natural knowledge called 'science' is concerned, it will, in general terms, be accorded credibility to the

extent that it furthers both technical and social interests. But the two interests always bear upon all bodies of natural knowledge.

Summing up, the EM model describes the dynamics of cognitive and communicative transactions in health care (see Figure 5). Also, it provides a means of comparing these transactions in traditional and modern medical settings, and of evaluating their efficacy. I will draw upon this model of the clinical process throughout the book.

4

The Cultural Construction of Illness Experience and Behavior, 1: Affects and Symptoms in Chinese Culture

The purpose of this chapter, and of the next, is to analyze several common pathways down which cultural beliefs and norms channel illness experiences and patient roles. We will examine cultural influences on cognition, affect, psychophysiological processes, behavior, and social role, and we will study the psychocultural mechanisms that mediate these influences. To accomplish this end, I will discuss a particular instance of culturally constituted illness experience and sick role in Taiwan: the somatization of dysphoric affects and affective disorders. Our concern is to derive an appreciation of the cultural construction of illness in Chinese culture that can be extrapolated to other illnesses and cultures.

The reader is cautioned that after presenting the case material we will make a brief detour through several psychocultural themes in Chinese culture that are prerequisites for our discussion of the cultural patterning of depression and other dysphoric affective conditions. By restricting this analysis I will not consider other ways in which culture affects sickness, such as its frequently important influence on epidemiological determinants of disease.

I present the following case to illustrate somatization and through it introduce the cultural construction of illness experience discussed in this chapter and the next and recapitulate the cultural organization of clinical transactions conceptualized in the preceding chapter. Somatization demonstrates the vital