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# Medicine, rationality, and experience

An anthropological perspective

BYRON J. GOOD

Harvard Medical School



systematic program of comparative studies of sickness, one which provides a critical anthropological analysis of biomedical categories but addresses the genuine concern of Browner and her colleagues (1988) about the units for comparison, is especially significant.

I have suggested that much of the inherited language of belief and behavior, so readily assumed by the medical behavioral sciences, serves poorly for addressing these issues. I have also reviewed the limitations of current paradigms developed as critical responses to that language. The following chapters represent an attempt to probe the tensions among these positions, to clarify the deep paradoxes that frame all of our work, and to develop one path we might follow for the comparative study of illness and forms of medical knowledge. It is by no means comprehensive or exclusive. However, it suggests issues which must be addressed if the field is to move forward.

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# How medicine constructs its objects

In a discussion among several second year Harvard medical students in which I was participating, one young woman described how she felt her medical education was changing her.

Medical school is really weird. It is a forced emotional experience. We handle cadavers, have feces lab where we examine our own feces, go to [a mental hospital where we get locked up] with screaming patients. These are total experiences, like an occult thing or boot camp.

... it's not just an extension of college. College was also a total experience, but you could get by with less direct engagement, and still learn things. Here you have to interact with the information. When you dissect a brain you have to interact with these things and with your own feelings. Look at what you're playing with.

I feel like I'm changing my brain every day, molding it in a specific way – a very specific way.

How medical students learn medicine, how they "change their brains every day," how they "interact with their information," offers insight into the highly specialized world of American clinical medicine. Analysis of this process will serve as entree to a set of claims about the relation of culture, illness, and medical knowledge which I want to develop in the remaining chapters of this book. I begin with a discussion of how medicine constructs the "objects" to which clinicians attend, arguing that medicine formulates the human body and disease in a culturally distinctive fashion, using students' descriptions of how they learn and how they change as a basis for insight into this process. The discussion of biomedicine in this chapter will provide a basis for exploring how medical anthropologists can compare disease and its formulation across cultures – in professional and folk practice, in popular interpretive schemes, and in the experience of those who fall ill.

The quotation is drawn from notes I took while participating in a conversation among a group of Harvard medical students. These and other data for this chapter come from interview transcripts and field notes, and are part of a study of Harvard Medical School which I have been conducting in collaboration with Mary-Jo Good and with the help of two of our students, Eric Jacobson and Karen

Stephenson. For more than four years, we interviewed a cohort of approximately fifty students, selected primarily from the graduating class of 1990, talking with them about their personal and educational experiences. In addition, we interviewed faculty and administrators about the curricular reform – Harvard's New Pathway to General Medical Education – and about their experiences teaching in both the traditional or "classic" curriculum and the New Pathway. I also attended several of the basic science classes as an anthropological participant and observer. The research is designed to allow comparisons of the experiences and socialization of students in the three curricula – the New Pathway, the "Classic" curriculum, and the Health Science Technology program – which were run simultaneously for students in the classes which entered in 1985 and 1986. The focus of discussion in this chapter, however, will not be on differences across these curricular groups. Instead I will examine practices and experiences common to students in all three curricula, many of which are viewed as so ordinary as to merit little attention.

In the first of the Morgan Lectures and the introductory chapter of this book, I argued that a prominent paradigm in the medical behavioral sciences is organized around the comparative study of beliefs about disease and suggested what I am convinced are fundamental problems with this perspective. I introduced the suggestion in conclusion to that lecture that we take as our analytic focus the "formative processes" through which illness is shaped as personal and social reality, examining how these vary across cultures and in different sites within a given culture. Competing analyses of the social, political, and cultural nature of such formative processes, their relation to human biology, and their reflection in "illness representations" has led to much of the energy in medical anthropology in the past decade.

In this chapter, I examine the construction of illness as an object of diagnostic and therapeutic activity within American clinical medicine. I begin the constructive chapters of this book with this issue in part to counter the assumption, underlying the empiricist paradigm, that the primary unit for analysis should be diseases or physiological processes that are "external categories of more or less universal reference," in Loudon's terms (1976: 38). I want to argue, paradoxically perhaps, that biology is not external to but very much within culture, and to discuss how clinical medicine constructs persons, patients, bodies, diseases, and human physiology. I use the phrase "how medicine constructs its objects" not primarily to criticize medicine or physicians for the "objectification" or "commoditization" of health or personal suffering (cf. Nichter and Nordstrom 1989), at least not at this moment, but to focus on those distinctive "formative processes" through which medicine formulates or constitutes that dimension of the world to which medical knowledge refers.

Lest I be taken for making absurd relativist claims – inviting a medical version of Dr. Samuel Johnson's refutation of idealism, when he kicked a stone and proclaimed, "I refute it thusly!" – let me be clear. When, after 1949, the Chinese came to interpret schistosomiasis as a problem of society rather than of

individuals, they shifted the object of medical attention and launched a mass campaign to harness the people's knowledge and energy to wiping out the snails in the Chinese waterways, rather than attending exclusively to individuals with liver flukes (see Horn 1972 for a popular account of this campaign). When family therapists argue that poorly controlled juvenile diabetes or anorexia nervosa is a symptom of family pathology, they are attempting to redefine the object of medical knowledge (Minuchin, Rosman, and Baker 1978). The Zande autopsy and an American medical autopsy attend to different dimensions of the body, and based on their findings organize social reality in quite dissimilar ways. And when the Dean of Harvard Medical School suggests, as he has in recent years, that medical education may soon have to undergo radical changes as disease comes increasingly to be seen in molecular terms, redefining disease categories and physiological processes, he is pointing to a change in the landscape of medicine almost as radical as the change Foucault documented for French medicine between the eighteenth and nineteenth centuries. My interest is thus in exploring how the objects of medical attention are constituted in contemporary American clinical practice. This formulation is of course not unique; Foucault (1972) examined the changes in medicine's objects historically, and others have addressed the issue from the perspectives of culture, gender, and political economy. Here, however, I want to approach the issue in phenomenological terms, analyzing how the medical world gets built up as a distinctive form of reality for those who are learning to be physicians.

I first introduce philosopher Ernst Cassirer's theory of symbolic forms as an entry point for analyzing the formative practices specific to contemporary clinical medicine. I then examine data from the medical school study to discuss how medicine formulates sickness in strikingly materialist terms. In conclusion, I will suggest that despite this materialist shaping of illness by clinical medicine, moral and "soteriological" issues (that is, those referring to suffering and salvation) are fused with the medical and at times erupt as the central issues of medical practice.

#### Medicine as symbolic form

I have referred several times to the formative processes through which illness realities are formulated. I take this term – "formative" – from the work of Ernst Cassirer, the idealist philosopher of culture, whose three volumes on *The Philosophy of Symbolic Forms* appeared in German in the 1920s. Cassirer situated his work in the context of Kant's response to Hume, that is, in relation to the debate about whether knowledge derives from the empirical world impressing itself on the human mind via the senses, or whether such basic dimensions of human knowledge as space, time, and causality derive a priori from characteristics of the human mind. Cassirer followed Kant in discrediting what he called the "naive *copy theory* of knowledge," a view of the sign as "nothing but a repetition of a determinate and finished . . . centent" (1955a: 107). However, rather than following Kant in attempting to discover the qualities of the mind that make order

of random sense perceptions, Cassirer instead argued that culture or symbolic forms mediate and organize distinctive forms of reality.

If all culture is manifested in the creation of specific image-worlds, of specific symbolic forms, the aim of philosophy is not to go behind all these creations, but rather to understand and elucidate their *basic formative principle*. It is solely through awareness of this principle that the content of life acquires its true form. (1955a: 113; my emphasis)

These basic "formative principles" are at work in language and myth, in religion, art, history, and science. All of these constitute distinctive "image-worlds," he says, "which do not merely reflect the empirically given, but which rather produce it in accordance with an independent principle. Each of these functions creates its own symbolic forms . . . each of them designates a particular approach, in which and through which it constitutes its own aspect of 'reality'" (1955a: 78). For Cassirer, culture was conceived as thoroughly historicized, as embodied in these distinctive symbolic forms and modes of human activity. Cultural forms such as science and art were not conceived as "simple *structures* which we can insert into a given world," that is not as glasses that provide a coloring to the world as we view it, but as "functions by means of which a particular form is given to reality" (1955a: 91).

the content of the concept of culture . . . can be apprehended only in "action." Only in so far as aesthetic imagination and perception exist as a specific pursuit, is there a sphere of aesthetic objects – and the same applies to all those other energies of the spirit by which a definite universe of objects takes on form. (1955a: 80)

Thus the objects of science, of religion and mythology, and of aesthetics presuppose forms of imagination, perception, and activity, and together these constitute what Cassirer called "symbolic forms." The "objects" of medicine are similar in kind.

I have introduced Cassirer's ideas here to begin to suggest that we think of medicine as a symbolic form through which reality is formulated and organized in a distinctive manner. We need not adhere to Cassirer's idealist philosophy to draw upon his insights. Indeed, what he analyzed in the 1920s as "formative principles" or "fundamental forms and directions of human activity" might be seen as the central focus of a variety of theories in the contemporary social sciences. Compare, for example, Foucault's notion of medical discourses as consisting "not of signs (signifying elements referring to contents or representations) but as practices that systematically form the objects of which they speak" (1972: 49). Theories of social and discursive practices – in anthropology, the sociology of science, and philosophy – have taken us far beyond where the social sciences were when Cassirer wrote, making evident the absence of political, economic, and institutional structures in his theory.<sup>2</sup> Yet Cassirer's analysis of science, religion, and art as symbolic forms, as both modes of experience and kinds of knowledge, as forms of activity that articulate and reveal the world of experience, and his conception of the phenomenology of human culture as situated in the midst of activity and as "apprehending and elucidating [the formative] principles" (1955a: 114) is extremely suggestive for our studies of medicine.

It supports the notion, first of all, that we should focus on the generative processes, the formative practices through which illness and other dimensions of medical reality are formulated. Rather than belief and behavior, the focus is thus on interpretive activities through which fundamental dimensions of reality are confronted, experienced, and elaborated. Healing activities shape the objects of therapy – whether some aspect of the medicalized body, hungry spirits, or bad fate – and seek to transform those objects through therapeutic activities. Comparative research can thus investigate these formative practices across cultures, the nature of realities they recognize and formulate, the way, that is, they apprehend and act on reality, and their efficacy in transforming it.

This is not the place to discuss the matter in detail, but an approach that begins with attention to interpretive practices and their formative or generative role in the construction of medical reality suggests comparisons with Foucault's investigations of sexuality, madness, and disease in terms of discursive practices. In fact, it is interesting to read Foucault in light of Cassirer's Neo-Kantian program. Foucault's early writings - his so-called "archaeological" studies of medical discourse (Foucault 1970, 1972, 1973) - can be read as making the remarkable idealist claim that social institutions are the product of the episteme, the underlying epistemological structure, of a medical discourse. Furthermore, Foucault's focus on the shaping of perception - the "gaze" - by a medical discourse and the construction of medical objects through discursive practices has parallels to Cassirer's program. Foucault explicitly denies, however, the role of the subject or the constituting role of consciousness. In this, he seems to be rejecting Kant's claims about the role of consciousness in shaping knowledge, arguing for the mediating role of discourse in a manner that both shares similarities and reflects sharp differences with Cassirer's argument about the mediating role of symbolic formations. Perhaps because he was a historian, Foucault could picture discursive practices in the absence of active practitioners, the gaze in the absence of the perceiving subject, or as Dreyfus and Rabinow (1982: 187) write, "intentionality without a subject, a strategy without a strategist." This analytic move paralleled the disappearance of the author and a narrow attention to the text in French literary criticism. For Foucault, it served to advance a program of analysis of technologies of power rather than intentionality of subjects. However, Foucault's corpus excludes the centrality of experience and in large measure the dialogical qualities of discourse. For the anthropologist, this inattention to the lived experience of the subject is ultimately untenable, I believe. It contradicts the centrality of persons and of intersubjective experience in the field research of the anthropologist. And for all its attention to "the body" as the object of social practices, Foucault's work largely excludes attention to the body as source of experience and understanding. As my analysis proceeds, I will be arguing that if we are to understand how medicine constructs its objects, we will need to join together critical studies of practices and the analysis of embodied experience.3

Second, the view outlined here suggests that we ask what the central generative principles are for *medicine as a symbolic formation*. I will spell this out as the chapter proceeds, but I suggest that we ask what are the core organizing activities of medicine as a symbolic formation, as Cassirer asks for science, religion, and art.<sup>4</sup> And I suggest we consider in this light the role of medicine in mediating physiology and soteriology. Illness combines physical and existential dimensions, bodily infirmity and human suffering. However materialist and grounded in the natural sciences, medicine as a form of activity joins the material to the moral domain. Weber (1946: 267–301) held that civilizations are organized around a soteriological vision – an understanding of the nature of suffering, and means of transforming or transcending suffering and achieving salvation. In contemporary Western civilization, medicine is at the core of our soteriological vision.

These theoretical reflections provide the frame for the title of this chapter, "how medicine constructs its objects," and for an examination of how the medical world and its objects are built up for those learning medicine.

#### Entering the body, constructing disease

For over sixteen years, now, I have been teaching social medicine and anthropology in medical schools, attempting to conceptualize the nature of illness and medical care in social and cultural terms, trying to make ideas as diverse as hermeneutics and phenomenology relevant to medical students and clinicians. Over and over again I have been struck by the enormous power of the idea within medicine that disease is fundamentally, even exclusively, biological. Not that experiential or behavioral matters are ignored, certainly not by good clinicians, but these are matters separate from the real object of medical practice. The fundamental reality is human biology, real medicine, and the relevant knowledge is staggering in scope and complexity. It requires an extraordinary effort to make one's way into this system of knowledge, and for the medical student, the consequences of learning this special route are profound. From the first day of classes, medical students look ahead to the day they will have responsibility for a patient, will have to coax a diagnosis from an obscure presentation, oversee treatment, and bear responsibility for the consequences. The amount of information presented is massive, and all of it seems important. As the nervous joke goes among first and second year students, if a patient comes to you with a problem, you can't say, "oh, I'm sorry, I didn't go to class that day!"5

Early in the course of our study of Harvard Medical School, we came increasingly to understand that learning medicine is not simply the incorporation of new cognitive knowledge, or even learning new approaches to problem-solving and new skills. It is a process of coming to inhabit a new world. I mean this not only in the obvious sense of coming to feel at home in the laboratories or the clinics and hospitals, but in a deeper, experience-near sense. At times when I left a tutorial in immunology or pathology to go to an anthropology seminar, I would feel that I

had switched culture as dramatically as if I had suddenly been whisked from the small town in Iran where we carried out our research back into Harvard's William James Hall. Not only was the language as different as Turkish and English, but the dimensions of the world that were beginning to appear – intricate details of the human body, of pathology and medical treatment – were more profoundly different from my everyday world than nearly any of those I have experienced in other field research. Thus we began to realize what an opportunity we had to investigate how the world of medicine gets built up as a distinctive world of experience, a world filled with objects that simply are not a part of our everyday world. Learning medicine is developing knowledge of this distinctive lifeworld and requires an entry into a distinctive reality system.

In Dan Sperber's chapter on irrational beliefs, which I discussed in my analysis of the anthropology of belief, he ridicules relativist approaches to the study of cognitive development. Such an approach, he argues, would "[imply] that the first stage of cognitive development consists not in acquiring knowledge in an essentially predetermined cognizable world, but, rather, in establishing in which world knowledge is to be acquired" (1985: 41). It is my contention that learning medicine is grounded precisely in "establishing in which world knowledge is to be acquired," and that studying how people learn offers insights into some of the formative practices through which medicine constructs that world. For medical students, the body and pathology are constituted as distinctively "medical" during their education. Entry into the world of medicine is accomplished not only by learning the language and knowledge base of medicine, but by learning quite fundamental practices through which medical practitioners engage and formulate reality in a specifically "medical" way. These include specialized ways of "seeing," "writing," and "speaking."

#### Seeing

Medical education begins in the new Harvard curriculum with an eight week course called "The Human Body," integrating anatomy, histology, and radiology, designed to provide an introduction to the "basic principles governing the organization of the human body from the molecular to the organismic level" (Harvard Medical School Tutor Guide 1987). Students attend lectures on anatomy and histology, and participate in case-based tutorials, histology lab, and gross anatomy labs, coordinated with radiology presentations. All are designed to provide entry into the body and the basic sciences. The teachers in the preclinical years (often called the "precynical years") are renowned laboratory scientists, and it is made abundantly clear that learning medicine during these first two years is above all learning the biomedical sciences. (Lest this seem obvious, a French physician friend described how his education began with the study of "semiology," that is signs and symptoms, how they present, their classification, and the diseases they indicate. Only toward the end of his training did they begin to look at the basic sciences.)

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Medical education begins by entry into the human body. Viewed through the microscope, entered physically in the gross anatomy lab, seen with astounding clarity via contemporary radiologic imaging, or presented by master scientists, the body is revealed in infinite, hierarchical detail. Students begin a process of gaining intimacy with the body – attempting to understand its gross organization and structure three-dimensionally, examining tissue from gross function to molecular structure; students are as geographers moving from gross topography to the detail of microecology. The body is the object of attending and skilled manipulating, and, as one student said, "it is a world of its own that has for me virtually limitless possibilities for learning." Within the lifeworld of medicine, the body is newly constituted as a medical body, quite distinct from the bodies with which we interact in everyday life, and the intimacy with that body reflects a distinctive perspective, an organized set of perceptions and emotional responses that emerge with the emergence of the body as a site of medical knowledge.<sup>6</sup>

The anatomy lab is one critical site of this emergence.<sup>7</sup> It is a ritual space in which the human body is opened to exploration and learning, and in which the subjects of that learning engage in reshaping their experiential world. One student described the experience as being like an Outward Bound exercise or like combat.

You take people, you take them completely out of context from their normal life, subject them to a whole new set of rules and have them do a lot of things you never thought you could do. And then when you take that back into your life in general and realize you're capable of that is when you realize you've grown so much.

Several steps are important in the phenomenological reconstruction of the body and its experience in this setting. The anatomy laboratory is demarcated as a separate order, having distinctive moral norms. Within this redefined context, the human body is given new meaning, and a new manner of interacting with that body is appropriate. Intrusions from ordinary reality into this space are experienced as "violation."

I can remember a person who I think was an applicant, who was spending a day with one of the students kind of getting a feel for the experience. And she came in and just hung out in the anatomy lab. And I felt very violated in some funny way. I felt like she was an intruder . . . that without being properly introduced and given a context, I didn't want to be seen doing these coarse things in such a cavalier way by that person . . .

Students describe a variety of changes in their perception that occur within this demarcated space. In normal reality, the body surfaces – the skin, the hands, the eyes, the face, the clothing – convey personhood. The interior of a person is his or her thoughts, experiences, personality. In the laboratory, the hands, the feet, the head remain bound, and the torso and limbs are the object of sustained attention. As the skin is drawn back, a different "interior" emerges.

Emotionally a leg has such a different meaning after you get the skin off. It doesn't mean at all what it meant before. And now the skin, which is our way of relating to other people – I mean, touching skin is . . . getting close to people – how that is such a tiny part of what's going on, it's like the peel of an orange, it's just one tiny little aspect. And as soon as you get that off, you're in this whole other world.

This "whole other world" becomes the paramount reality in the anatomy lab. It is a world with which the physician-to-be develops a tremendous intimacy. It is a biological world, a physical world, a complex three-dimensional space.

In anatomy, the body is revealed as having natural compartments. Sundering the natural structures is another kind of violation. One of the most shocking moments in anatomy lab was the day we entered to find the body prepared for dissecting the genitalia, the body sawn in half above the waist, then bisected between the legs. Students described their shock not at close examination of the genitalia, nor simply at the body being taken apart, but rather at the dismemberment, and at dismemberment that crossed natural boundaries. Dissection follows planes of tissue. Here the plane that cut the body was straight and hard, cutting across natural layers of tissue in an unnatural fashion. The majority of the time is spent trying to separate natural surfaces, to distinguish the boundaries of gross forms and identify tiny nerves, veins, lymph glands, and to match these to the anatomical atlas. These are gradually broken down and examined not only in relation to each other but in finer and finer detail, revealing the natural body.

Students are quite aware that they are learning an alternative way of seeing, that it is a way of seeing that they can usually "turn on and turn off," but that they are learning to "think anatomically" in a way that is central to the medical gaze. During anatomy, this way of seeing is not neatly contained in the laboratory or limited to the appropriate contexts for the medical perspective. While participating in anatomy as an observer, I would occasionally be walking along a street and find myself a body amidst bodies, rather than a person amidst persons. I found myself attending to anatomical features of persons I passed, rather than perceiving them as persons with social characteristics or imagined lives. Students describe vivid experiences of this sort. For example, a student doing a special rotation in pathology, which included routine autopsies, told me of perceptual shifts similar to those of students first doing anatomy dissections.

I'll find myself in conversation . . . I'll all of a sudden start to think about, you know, if I took the scalpel and made a cut [on you] right here, what would that look like [he said laughing]. . . . very often that happens. And that's a frightening thing. You say: why are you thinking that way? You know, you're sitting here having a discussion with a person who's alive, and yet you're thinking about the procedures that you use when you're doing an autopsy.

My point here is not that anatomy is a "dehumanizing" experience, but simply that it is one significant contribution to the reconstruction of the person appropriate to the medical gaze, identified as a body, a case, a patient, or a cadaver. The person is a cultural construct, a complex and culturally shaped way of experiencing self and other, and cultural "work" is required to reconstitute the person who is the object of medical attention. This reconstruction of the person is essential to a student becoming a competent physician.

A central metaphor for medical education is that it is like "learning a foreign language." During orientation a biochemist remarked, "learning medicine is like

learning a language, and biochemistry has become the lingua franca of medicine." The metaphor is commonly referred to by students and faculty alike. On the surface, the meaning is clear. There is a huge vocabulary to be learned, a working vocabulary as large as most foreign languages, and competence in medicine depends on learning to speak and read the language (or perhaps a family of languages). Much time in the early years of medical education is devoted to developing fluency in this language, and the student skits which second year students write and perform to satirize their experience are devoted to extensive celebration and ridiculing of the technical language of medicine.

There is, however, a subtext. Learning the language of medicine consists not of learning new words for the common-sense world, but the construction of a new world altogether. As one student said,

Some of it is just learning names, but learning names is, now you get into linguistics or semiotics or something, because learning new names for things is to learn new things about them. If you know the names of every tree you look at trees differently. Otherwise they're trees. As soon as you know all the names for them they just become something different. That's kind of what we're doing . . .

This student's visual metaphor, of "looking" at things differently, is an apt image for the first two years of medical school. I was constantly impressed by how visual the teaching of human biology was. Anatomy required a training of the eyes, to see structure where none was obvious. Only with experience did gross muscle masses become apparent and recognizable. Veins and arteries, nerves, lymphatic vessels, and connective tissue were largely indistinguishable from one another until weeks into gross anatomy. With practice, however, the intricate structure of the human body became manifest. Histology and pathology required similar training of the vision. Whether examining the color pictures of a histology atlas or viewing slides through a microscope, shapes, colors, and lines all appeared as confusion to the untrained eye. With experience, epithelial cells became distinguishable from connective tissue, cells characteristic of the liver or kidneys recognizable. Distinguishing among a welter of types of blood cells, identifying types of pathological process, or recognizing organelles that constitute the inner structures of cells took more time. Learning to make sense of the confusion that appears through the microscope was largely a matter of learning to see.

This visual quality seems true not only of teaching the medical sciences, but of the conduct of biological science itself. If mathematical relationships govern astronomy or physics, three-dimensional images remain central in biology. The discovery of the double helix shape of DNA – its tangible spiraling form – was central to modern genetics, and investigating the actual shapes of polypeptide chains is central to understanding how proteins interact, how biochemical reactions occur.8 Modern imaging techniques give a powerful sense of authority to biological reality. Look in the microscope, you can see it. Electron microscopy reveals histological concepts as literal. Look for yourself – there it is!

Learning to see is linked to learning biology's natural hierarchical order.

Students dissect a knee joint, examine an atlas of its structure, then view hyaline cartilage under the microscope and micrographs of the internal structures of these cells. The next day they see a patient with osteoarthritis, a disease of the cartilage. The message is powerful. There are worlds within worlds, each subsumed by the other. Tissue with distinctive functioning is revealed to consist of specialized cells, these to have highly specialized organelles, inner structures that are now understood as bounded environments for specialized biochemical processes, these revealed at the molecular level. And disease processes can be traced from surface appearance to deeper, more basic levels. As one student said as we discussed this matter:

There were times when it was really striking. For instance, when we tried to explain psychology, behavior, based on neurology and then we thought about how neurology, the structure of the brain, well if it was influenced by genetics, then if you think about what a gene is, a gene really comes from a protein. So that if some disorder, like schizophrenia, is genetic, then there must be a protein. And that's something really concrete. I never thought that if something was genetic that there would be something that concrete and real that you could track down. That if a drug had an effect, drugs just don't have an effect magically, [but] because it's a molecule and interacts with other molecules in a person to have an effect. It binds to a receptor or it interferes with a membrane . . . That's really exciting when you see those insights.

This natural hierarchy is replicated as the implicit order of teaching. I began noticing slides in the basic science lectures – and of course no medical school lecture can be given without slides – often follow a predictable pattern. A slide showing the epidemiology of a disease will be followed by a clinical slide of a patient, and that by a pathological specimen. Then a slide of low magnification cell structure is followed by an electron micrograph, and from this level to diagrams of molecular structure and genetic expression. A slide at one level is often followed by one just above or just below in this hierarchy, and each level reveals the more basic structure of the next higher order.

I am reminded of the historian Arthur Lovejoy's marvelous analysis of "the great chain of being" as an idea in Western civilization (Lovejoy 1936). For nearly 2,000 years, he argued, the Platonic view juxtaposing the world of being over against the world of becoming held sway. The world of being was represented as an ontological hierarchy, from the material world of substance outward to the divine order. In large measure, this order was historicized during the Romantic age, then gave way, Lovejoy argued. One has a sense in the contemporary medical sciences of the enduring power of the idea of hierarchical orders, each encompassing the other, a timeless rational structure that gives order and sense to everyday existence. Unlike in the Platonic, medieval and renaissance view, however, ultimacy resides in depth, downward to levels that generate surface phenomena. And such deeper structures are not social or divine but ever more fundamental orders of material reality.

Thus the first two years of medical education provide a powerful interpretation of reality, anchored in the experience of the student. Surface phenomena of signs,

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symptoms, and experience are shown to be understandable with reference to underlying mechanisms at an ontologically prior level. Even broadly incorporative biopsychosocial models, articulated in the language of systems theory, represent biology at the center, social relations outward at the periphery (see, for example, Engel 1977). Those diseases for which a clear understanding of the mechanisms has been achieved provide the prototypes of medical knowledge, suggesting that all disease is of this kind, if only we understood. Myasthenia gravis, a quite rare neurological disorder, has a central place in neurobiology courses, because it is accounted for by a disorder of antibodies to the acetylcholine receptor. Diseases with known, specific mechanisms are taught as prototypes. The message is clear. The architecture of knowledge is in place; we only need to fill in the missing structural links.

This means of interpreting reality is both powerful, illuminating many disease phenomena and providing the basis for therapeutics, and at the same time profoundly ideological and often misleading. We think almost by reflex of behavior residing in our genes, the origins of disease in the individual medicalized body. Were we equally convinced that social organization and social relations were deep or central, the ontological source of the great chain of being, it would seem incomprehensible to continue to search for genetic differences for school accomplishments in children or to continue to ignore the social origins of infant mortality or violent deaths among our youth, and the study of neuroplasticity, that is the role of social experience in forming our neurological system, for example, might be more central than it is.9 However, my goal at the moment is not to critique the medical perspective but to indicate its tremendous power and to suggest some of the formative activities by which it is authorized and elaborated.

### Writing and speaking

If learning to see in a new way is fundamental to the construction of the objects of medicine during the first two years of medical education, learning to write and speak are critical during the early years of clinical training. These are the years when paper cases are left behind, when after years of both wanting to see real patients and wondering if they would ever know enough to take responsibility for someone who is ill, the students finally enter the world of the hospital and join teams of interns, residents, and attending physicians who care for the sick. It is during this time that they learn to construct sick persons as patients, perceived, analyzed, and presented as appropriate for medical treatment. Learning to write up a patient correctly is crucial to this process in some quite subtle ways.

I asked a third year student what experiences made him feel like he was gaining competency during his pediatrics rotation. "Write-ups," he said, laughing. "I got better at doing write-ups. They got less painful to do. Progress notes . . . learning to write in the new way." "A very important part of medicine?" I asked. "Very important part. Learning to talk in the right way, another part. Like learning to communicate." I asked him to tell me about learning to write.

One thing about medicine I actually admire is [that] there really is an ideal of clarity ... and [logical presentation]. The ideal write-up has sort of all the facts that argue in favor, and all the facts that argue against, and conclusions drawn from those . . . drawn together in sort of a summarizing formulation about what you think is going on and then a plan of attack. I mean, something very satisfying about that. Of course the real world doesn't lend itself to that, so you distort the real world a little bit to make it fit that nice pattern.

He compared learning to do this to learning to read a book and write a character study of one of the figures in the book, during grammar school. After doing many of them, you come to read a book with this new job in mind, he said. It is similar in medicine.

... You begin to approach the patient now with a write-up in mind, [he said], and so you have all these categories that you need to get filled. Because if you don't do that, you go in, you interact, . . . you talk, . . . you go back and you realize that you left out this, this, this and you need to go back. And when you go in with the write-up mentally emblazoned in your mind, you're thinking in terms of those categories.

He went on to describe the standard categories of a medical interview - chief complaint, history of present illness, review of symptoms, past medical history, family and social history, and physical exam. But these interview categories are those of the written document. The write-up is not a mere record of a verbal exchange. It is itself a formative practice, a practice that shapes talk as much as it reflects it, a means of constructing a person as a patient, a document, and a project.

Writing authorizes the medical student as it constructs the patient.

... you do a write-up, you sign it, you date it. It's an official hospital document. It goes in their chart. Everyone reads it. . . . So there's that feeling of like, "oh my god, people are going to read this." There's also a feeling of "I finally belong here. I mean, I feel totally inadequate and incompetent, but I am now a third year medical student, and I'm supposed to be here."

... To a large extent, you're authorized through your writing. That's sort of what justifies everything else, is you are actually now communicating important information, and that entitles you to poke and prod, . . . spiritually, verbally, and physically. And there's a sense now [that] you've been empowered somehow to perform this role . . . you interview with more authority when you're going to be writing up the interview. There's a sense where you're not just a voyeur. You're producing a document, so this is not just for your kicks. This is for real. . . . Now you have a project. Now you have to sort of turn on the burners because you have to do something with this person. They become yours in the sense that you're going to present them at rounds, and you're going to be evaluated on how well you work them up and you're going to . . . you see what I mean? Suddenly now they're a commodity in a certain sense that you have to process and present.10

Thus, writing is multifaceted. It authorizes the medical student, justifies the interaction with the patient. It organizes the conversation with the patient, the whole process of working up the patient. It is written for an audience: other

physicians who will not only make decisions based on the document, but judge the student based on its writing. And it is a critical dimension of formulating the patient as a project for treatment

... basically what you're supposed to do is take a walking, talking, confusing, disorganized (as we all are) human being, with an array of symptoms that are experienced, not diagnosed and take it all in, put it in the Cuisinart and puree it into this sort of form that everyone can quickly extrapolate from. They don't want to hear the story of the person. They want to hear the edited version . . .

I asked him about the editing out of patients' stories.

You're not there to just talk with people and learn about their lives and nurture them. You're not there for that. You're a professional and you're trained in interpreting phenomenological descriptions of behavior into physiologic and pathophysiologic processes. So there's the sense of if you try to tell the people really the story of someone, they'd be angry; they'd be annoyed at you because you're missing the point. That's indulgence, sort of. You can have that if you want that when you're in the room with the patient. But don't present that to me. What you need to present to me is the stuff we're going to work on.

Another student described how when she was first learning medical interviewing, "I felt that it was a great privilege for me to hear some intimate details of their lives," and she would spend time listening to what patients wanted to talk about. By the fourth year, however, she said "you start to develop this sense of 'well, I have a job to do here and I'm doing something for you, so I'm going to just do it as efficiently as I can'."

I have quoted from these interviews at some length because they describe one of the central formative practices of medicine, writing, which opens onto a family of other such activities. Writing both reflects and shapes conversations with patients. It provides the categories and structures of those conversations, and it represents a structure of relevance that justifies the systematic discounting of the patient's narrative. It organizes the patient as a document, a project to be worked on. It is written for a specific audience. And it serves as the basis for another set of practices, which I will briefly discuss under the heading "speaking."

There is an enormous social science literature on doctor-patient communications. In our interviews, however, medical students indicate relatively little concern about this domain of talk. In part this is because it constitutes a surprisingly small amount of time. Several students estimated for me that on a medicine service, with very sick patients, outside of the new patients whom they admit, they often spend at little as twenty minutes a day in one-to-one conversation with patients. ("So what," I asked one student, "is a day all about then?" "It's about numbers and lab values and rounds and teaching," she responded.) But the medical students' lack of concern about their conversations with patients is also a result of their perception that the central speech acts in medical practice are not interviewing patients but presenting patients. About presentations of patients we have many, many stories from students.

One student described his early clinical experience: I think the main thing ... you learn [is] kind of the daily rhythm, which is rounds in the morning, work rounds, what are work rounds, what are attending rounds, what are visit rounds. ... [He went on] ... a big part of rounds is presenting cases, and in some ways that's probably the biggest thing medical students learn ... Doing case presentations is probably the main thing you concentrate on ... [for] the medical student, their one chance to be in the lime light is when they present, and it's also probably the area where you're most likely to either gain the respect or ... the annoyance of your colleagues, and especially your superiors ...

Case presentations are a genre of stories, through which persons are formulated as patients and as medical problems.<sup>12</sup> The presentations are stereotyped in format, but vary in length depending on the context. One student reported: "Morning rounds, you give short stories, bullets. Attending rounds you give longer stories. Presenting admissions you give even longer stories. . . . And in teaching experiences there are illustrative stories. That's a whole other kind of story."

Virtually every student remembers the pain of telling a story poorly and enraging a resident or attending. "It was probably my first patient," one student told of an early experience on surgery, "and I started to go into this whole thing about why the person's here, what we found on the physical exam, and of course none of this was what [the chief resident] wanted to hear. It was like he wanted a two second blurb on this person on how they were doing. . . . He just jumped down my throat. He said, 'All right, what are you doing? Why are you wasting my time? Just get to the important stuff.' When I didn't know what the important stuff was, he got even more mad . . . "

Learning what "the important stuff" is and how to present it in a persuasive way is central to becoming a physician. It requires that one know enough about the patient's condition, the disease processes, the diagnostic possibilities, and the appropriate treatments to sort through a huge chart filled with information and present the critical issues in a few minutes. And it requires the ability to tell a good story, organized chronologically, tracing origins and consequences of the disease process, or outlining a diagnostic puzzle.

I've been told a number of times by house officers, my supervisors, or teachers . . . that you should be sort of leading up to something which is your differential diagnosis, and that you should tell the story of this patient such that you'll persuade your audience of your final, most likely diagnosis, or of your differential, and why you've included certain diseases and excluded others.

Interest in the story reflects the interest in the case. "My intern always used to say," another student said laughing, "a good case is one where you don't make the diagnosis for an hour. A great case is where you don't make the diagnosis for a day. But if it takes a week to make a diagnosis, now that's what they call a 'fascinoma'." This student had had the rare opportunity for a medical student of having admitted two of the most interesting cases seen on the Medicine service at the Massachusetts General Hospital for some time, and had been invited to present both of them at the Morbidity and Mortality rounds. Because he is a

natural performer, his presentations were a smash hit and probably the most memorable experiences of his clerkship years.

Students become quickly aware of the performance dimension. They rehearse presentations, learn to give them without notes, even to make up details if they do not remember them exactly, and are very aware of the response. If the performance is not successful, the team members start fidgeting, rolling their eyes, tapping a pencil, or simply tune out. "When you take up too much time, you kind of ruin everything for everyone. You hold up the team, you mess up the rhythm for the rest of the day . . ." And this is the single most important source for criticism or approval which students experience in the early stages of clinical training. "It's not how much time you spend with your patients or how caring you are with them or how good a rapport you establish with them, or how amazing your knowledge of pathophysiology or whatever," to quote a student, but your presentation of cases.

Current literary criticism rejects the view that narratives are simply pure reflections of experience, just "a story of what happened." Some theorists argue that they are mere conventional fictions. I am suggesting something much more than this. Stories are one means of organizing and interpreting experience, of projecting idealized and anticipated experiences, a distinctive way of formulating reality and idealized ways of interacting with it. I will be returning to this theme in talking about illness narratives (see chapter 6). However, my point here is that presenting cases is not merely a way of depicting reality but a way of constructing it. It is one of a set of closely linked formative practices through which disease is organized and responded to in contemporary American teaching hospitals. Case presentations represent disease as the object of medical practice. The "story" presented is a story of disease processes, localized spatially in tissue lesions and disordered physiology and temporally in abstract, medicalized time (Frankenberg 1988c). The person, the subject of suffering, is represented as the site of disease rather than as a narrative agent. The patient is formulated as a medical project, and given the extreme pressures of time, case presentations are designed to exclude all except that which will aid in diagnostic and therapeutic decisions. Get to the point, students are told. What's the real story here? What do we have to do? What is done is what we mean by medical care - the identification of pathology, and the application of medical therapies. One result is the inattention to the lifeworld of the patient, now widely documented in the medical social science literature (for example Mishler 1986a; Kleinman 1988b). Another result, however, is what we know as routine, rational medical practice.

With time, I could analyze other practices which medical students must learn. They learn to represent illness and physiological functioning as numbers and lab values, to engage in a distinctive form of clinical reasoning, to do procedures. They learn to enter into appropriate relations with other physicians, to negotiate among diverse and conflicting interests and claims. All of these are important interpretive practices, and they are closely interdependent. Taken together, they constitute a complex "language game," in Wittgenstein's terms, that produces a

"way of life." I have focused on writing and speaking here because they quickly recede into the background, outside the purview of curricular reforms. And I have drawn them to our attention because they often seem to be mere reflections on a preconstituted world rather than key practices in its shaping.

Though I refer to these practices in Wittgenstein's analogy as part of a language game, it should be clear that they are deadly serious and have consequences in the material world. I asked a student whether the switch from basic science reasoning to clinical reasoning was a very important change between the basic science years and the clinical years.

I don't think it's really all that different than the cases we had in tutorial, but I think what's utterly different is that you're not just reading a case or a story about someone having an operation . . . you go in the hospital and you find yourself being part of [actual] decisions to open up people's bodies and take veins from one place and stick them in another place or cut out hunks of their intestines, or whatever, that can never be put back, I mean just doing huge things to people when often times it's not known 100 percent that the person even has that problem but no one can think of anything more likely, and they are kind of in dire straits and something needs to be done.

The student was reflecting two things. First, what I have been calling formative practices – writing charts, presenting cases, speaking with patients – are what Austin (1962) called "speech acts"; they are annunciations that have tremendous consequences in the real world. They are not simply forms of literary representation, ways of thinking about the world. They are powerful ways of acting. They lead to further actions, medical procedures, technical interventions, the use of pharmacological agents. Thus when I speak about "the medical construction of the body through various interpretive practices," I am describing acts which quite literally shape and reshape the body.

Second, at the end of his comments, this student was reflecting an awareness of the conventionality and arbitrariness of many of those actions. A resident says, "Well, we're going to give this kid a fourteen-day course of antibiotics." But how do we know that it shouldn't be ten days or twenty days, the student asked himself. There's no data about this, it's just what we do. But this is true not only of such benign interventions. He also felt it to be true of the most dangerous, risky or experimental procedures. Having rotated from a neurology service that now had several of his previous patients who had had intraoperative myocardial infarctions or strokes shortly after the surgery, he saw the potential ill effects of such interventions; "cutting off someone's nose to spite their face," he called it.

... it often seems like as medical students we kind of slide into doing these kind of things which can have just unimaginably great consequences for patients and we just sort of do it because we've incrementally learned about the biology and the science and the pathology and the pharmacology and we kind of inch into it and suddenly there we are saying, "I'll write the orders that such and such be done to this patient."

During their first year of clinical activities – the third year of medical school – students often become acutely aware of the arbitrariness of many of the specific

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activities in which they engage, as well as of the powerful forces that support conformity. They see treatments that have poor outcomes as well as those that provide benefit. They see some residents or attending physicians doing procedures they think should not be done or behaving miserably toward patients. At the same time, they recognize they are not senior enough to judge what should be done, and they feel deeply the pressure to show solidarity, not to question the actions of those up the hierarchy. They seldom recognize, however, the relationship between their perceptions of arbitrariness and hierarchy.

Students learn the formative practices I have been describing in an extraordinary "totalizing" institutional setting. Their whole lives - their waking lives as well as much of their sleep - are spent in the hospital. They are constantly examined, especially during teaching rounds, and observed - by interns, residents, attendings. Their actions are judged in written evaluations, which have important consequences for what residency programs they may get into.14 When interviewing students about this aspect of their experience, I often think of Foucault's image of the "panopticon," a circular prison allowing inmates in its cells to be scrutinized by the guard in a tower in the central courtyard at any moment, an image Foucault took from Bentham to describe those modern institutions which combine observation, disciplinary control, and teaching (Foucault 1977: 195-228). Hospitals are of course not prisons, and medical students resent lack of attention and supervision even more than they dislike the constant evaluation. But they quickly discover they are part of a formalized hierarchy, and those more powerful dispense rewards - the right to learn new procedures, teaching time, a few extra hours of sleep, and positive evaluations - as well as punishment. They "have total control over your self-esteem," one student said, particularly through their public praise or belittling of students. They can also require students to spend their time doing trivial and uninteresting work - "scut" - rather than offering opportunities for learning a new skill.

The regulatory procedures that students experience as giving others "total control" over them are not designed simply to control patients and practitioners, as Foucault's analysis often seems to suggest. They are designed first to control and manage error. As Bosk (1979) described in his classic treatment of a surgical residency, clinical teachers face the dilemma of needing to allow students to work at the limits of their competence and therefore make errors, in order to promote learning. But since errors potentially have such grave consequences, all practices must be carefully regulated. This regulation serves not only to reduce arbitrary practice on the part of students, but to control the practices and the interpretations of members at each level of the hierarchy. Adherence to a set of standards defines "competence," and competent practice is governed by a strong set of moral norms (cf. M. Good 1985).

These norms control not only practices, but acceptable definitions of reality as well. For the student, the house staff and attendings provide the "only reference to reality that you have," as one said. When they seem trustworthy, students find it easier to feel that the perceived arbitrariness derives from their own lack of

knowledge. The student I was quoting above said that for him, the attending physician, the individual in charge of the service, plays a key role in validating the whole system. They can serve as "guardian angels," in his words.

... my impression is if you really respect that person, then you tend to feel a lot more comfortable with the whole system, and the arbitrary aspects and the times when people seem to be acting by convention versus from proven data or whatever don't make you feel as uncomfortable. But if the guy at the top is someone who you don't respect or something for whatever reason, which has only happened to me once, you really start to, I think, at least for me, feel very kind of ill at ease with the whole kind of enterprise.

Hierarchy and the control of the arbitrary are thus intimately related. "Standards of practice," defined and enforced hierarchically, place sharp limits on the actual arbitrariness of clinical activities, while they validate the sense of their rightness. Medical education thus authorizes clinical practices and their objects; at the same time, these practices construct the objects of medical attention and reproduce the power relations in which they are embedded.

#### Medical practice and the soteriological

In focusing on the formative dimensions of medical practice, I have resisted providing a conventional critique. What I have described indicates some of the powerful, experience-based practices by which medicine formulates sickness from a materialist and individualizing perspective. Disease is resident in the individual body, and the goal of treatment is to understand surface phenomena with reference to a deeper ontological order, to link symptoms and signs to physiological structure or functioning and to intervene at that level. Disease has a natural course; the story of the disease is one without a personalized agent. The narrative and phenomenological structure of illness experience, and the person who is agent of suffering, are relevant to routine clinical practices only insofar as they reveal the pathophysiological order, enabling the physician to formulate and document the case as a medical project. The clinical narrative - that is, the case as presented in rounds - and associated clinical stories most often conceive the patient as person and actor only so far as patients are seen as morally responsible for their diseases - the despised alcoholic's esophageal bleed - or as willing agents in conforming to recommended treatments. 15

This picture, which follows directly from the analysis I have outlined, provides the stuff of conventional critiques of contemporary medicine. It has a large measure of truth. It is also, however, a kind of caricature and always only partial. The sketch I have presented of clinical practice is most true for a tertiary care hospital setting, where the task is to treat severe, usually acute, medical problems and discharge the patient as quickly as possible. It is also more true for medical students than for experienced clinicians. The elemental practices of clinical work absorb the attention of the student, who must learn the simplest procedures, forms of reasoning, and ways of speaking and acting, while these quickly fade into the

background for the skilled clinician, allowing for a different kind of attending – at least ideally – to the person who is ill. It is for this reason, however, that our research on how medical students learn lays bare those elemental practices and shows them to provide the skeleton of medical activity and medical knowledge.

This sketch is also partial because every medical school strives to teach students a set of practices complementing the standard diagnostic and therapeutic activities. Courses in social medicine or the medical humanities and behavioral sciences teach students to attend to patient narratives and experience, to evaluate ethical issues in medical practice, and to consider the social context of illness and care. Forms of interviewing and assessing patients appropriate to such perspectives are also taught. In some curricula these issues receive scant attention; in some, such as the Patient–Doctor course of Harvard's New Pathway curriculum, a great deal of effort is devoted to teaching these complementary practices and the knowledge associated with this view of sickness and care. However, social and behavioral issues are always a tiny part of medical curricula, and in the clerkship years, these so-called "psychosocial" dimensions of medicine are almost always marginalized, absorbed within the standard work-up, set aside for exceptional cases, or discounted entirely.<sup>16</sup>

Conventional criticisms of medical practice seem particularly inadequate, however, because they fail to recognize how fundamentally the materialist and individualist vision is instantiated within the simplest, constituting practices of medicine. They also fail to recognize the constant presence of what I have earlier referred to as the "soteriological." I began with the argument that soteriological concerns suffuse medical care – they are always present within it – and at times irrupt into awareness or cause a breakdown in routinized practice. I suggested that the juxtaposition of the rational–technical or physiological with the existential or soteriological is essential to our understanding medicine as a symbolic formation. Let me give an example.

A third year medical student, a young woman, told me the following story during one of our interviews, in answer to my question about what makes an "interesting" case.

We had one patient that had steroid psychosis, or I think that's probably what it was finally in the end, we decided, some kind of psychosis. He was an AIDS patient. It was actually a really frightening case because he at one point, this was the most . . . timid man, really very calm and fearful sort of person who turned into just an aggressive, sort of animalistic kind of person, whether it was due to the steroids he was getting or whether it had something to do with HIV encephalitis or whatever. It could have been various things, he just had (short laugh) a really frightening shift of personality. At one point he had pulled out his I.V. and there was blood all over the bathroom and he was threatening people that he was going to scratch them or bite them and give them AIDS, and it was really very . . .

BG: Was it explicit?

Yeah, "you're going to get it, you're next!" This was while we were on call one night so I was there, and it was really very scary.

BG: He was acting out all of the unspoken fears.

Yeah, very much. I mean he was totally uninhibited, I mean I'm sure that he was expressing a lot of fear of dying . . . while this was happening he was essentially saying all the things that he could never say normally. Just screaming at the top of his lungs, "I'm going to die. I'm dying and I don't know why I'm here. Why are you doing this for me? You know I'm dying." And the whole thing feeling like he wanted to do some kind of damage on other people, like someone should pay for how horrible life is treating him, which are all some pretty real issues but which of course never have been addressed with him since that's just not what happens. So he basically was restrained for a lot of days and his steroids were stopped and he calmed down after a number of days, but he was seriously that way for two or three days. So that case was brought up, but mostly not because everyone considered it interesting, although I did (laughing), but because there wasn't any other cases really going on so we ended up discussing that, but really by default because there wasn't anything else that wasn't run of the mill.

I asked how the case had been discussed, whether the dramatic episode she had described and its implications became central to the discussion. "That was actually really interesting," she said. There was a discussion of what could have caused a psychotic reaction, but the resident who presented it never described the details, never opened the issue of how frightening it was: "... it was sort of the macho kind of thing like, (take charge, deep voice) 'patient had an acute psychotic break and we just took care of that,' the fearless resident."

The hospital is not only the site of the construction and treatment of the medicalized body, but the site of moral drama. This case is a reminder of the nature of that drama – of human suffering and fear, of the confrontation with illness and death on the part of both the sick and those charged with their care, and of efforts to contain and manage the drama. Surely what is evident in this case is the irruption of the fundamentally moral dimension of illness into this rational–technical sphere. What is remarkable is the use of routine medical procedures to manage the rupture of the common-sense reality of the hospital rather than to open them to moral reflection. Order was restored. The medical definition of the event was maintained through physical force and the interpretation of the rupture by routine speaking practices. One has a sense here of what Habermas calls the "colonization of the lifeworld," the shaping of the experiential world of our moral lives by instrumental rationality, highly routinized procedures, and both technical and technological management.<sup>17</sup>

But again, this hardly seems the whole story. Medical practice can never fully contain the moral and the soteriological. Indeed, events such as these, which are not so uncommon, really, reveal the foundations of medical practice. This is, in a sense, what medical practice is all about. From early on, many medical students speak of a kind of "passion" required for doctoring. Not only do they seek a specialty that will maintain their intellectual excitement, but many describe their desire for a passionate engagement with the primal forces of sickness and suffering, a passionate struggle on behalf of their patients. It is an attitude for which students long, although they are ambivalent about its demands. It is an

attitude all too often lost in years of training and practice, but it remains present as a dimension of all healing.

One could read Foucault's descriptions of the hospital and medical practice, as well as much medical anthropology, with little sense of the moral and soteriological core of the experience that is present, present for the ill and their families, present as an underlying assumption of those who enter the profession, present among physicians and their patients confronting life-threatening conditions, and present too within the routinized practices through which objects of medical care are constructed so that they can be treated medically. I have suggested that it is precisely the conjoining of the physiological and soteriological that is central to the constitution of medicine as a modern institution, or in Cassirer's terms, a symbolic formation. Medical knowledge is not only a medium of perception, a "gaze," as one might take from Foucault. It is a medium of experience, a mode of engagement with the world. It is a dialogical medium, one of encounter, interpretation, conflict, and at times transformation.

I also suggested in the introduction that medicine plays a very particular soteriological function in modern societies, characterized as they are by materialist individualism. You will recall Weber's wonderful description of the central role of ideas of redemption or salvation in the organization of civilizations, ideas organized around "an image of the world" and "a stand in the face of the world." "From what' and 'for what' one wished to be redeemed and, let us not forget, 'could be' redeemed, depended upon one's image of the world," he wrote.

One could wish to be saved from political and social servitude and lifted into a Messianic realm in the future of this world; or one could wish to be saved from being defiled by ritual impurity and hope for the pure beauty of psychic and bodily existence. One could wish to escape being incarcerated in an impure body and hope for a purely spiritual existence. (Weber 1946: 280)

And he goes on with other possibilities cultures have explored. What I am suggesting is that medicine is deeply implicated in our contemporary image of what constitutes the suffering from which we and others hope to be delivered and our culture's vision of the means of redemption. In a civilization deeply committed to biological individualism, one in which spirit is ever more a residual category (Comaroff 1985: 181), the maintenance of human life and the reduction of physical suffering have become paramount. Health replaces salvation, as Foucault wrote in his conclusion to *The Birth of the Clinic*.

This is because medicine offers modern man the obstinate, yet reassuring face of his finitude; in it, death is endlessly repeated, but it is also exorcised; and although it cease-lessly reminds man of the limit that he bears within him, it also speaks to him of that technical world that is the armed, positive, full form of his finitude. (Foucault 1973: 198).

Sickness, death, and finitude are found in the corpse, in the human body. And salvation, or at least some partial representation of it, is present in the technical efficacy of medicine.

Lest I be understood as romanticizing medicine, I remind you of the terrible costs of such a narrowly biological view of the human person, of such devotion to maintaining biological life. The abortion debate no longer turns on discussion of the presence of the spirit or soul in the fetus, or even on what constitutes personhood, but narrowly on a politicized commitment to "life." Infant mortality rates have come to be seen as almost the sole criterion of the success of international public health programs. And in this country we spend an astounding proportion of our health care dollars on the last several weeks of life, so great is our commitment and our technological capacity for extending life.

At the same time, this soteriological resonance of medicine makes understandable aspects of clinical practice neglected or obscured by many standard sociological or anthropological analyses. Physicians and students tack back and forth between engagement in clinical practices and moral reflection. The language of hope, given narrative shape in clinical discussions around cancer or other life-threatening illnesses, takes on a transcendent quality (M. Good et al. 1990). Caring, exemplified by our idealized vision of medicine, is at the center of our moral discourse. Indeed, medicine is the central site for the discussion of many of the most important value issues in contemporary society. Perhaps this soteriological quality of medicine explains our outrage when physicians fail to live up to these moral standards.

My goal in this chapter has been to suggest some ways of thinking about medicine as a "symbolic form," a symbolically mediated mode of apprehending and acting on the world. I have provided a brief analysis of American clinical medicine as a set of distinctive interpretive practices. Such an approach suggests methods for comparative research – for comparing types of medical practices across societies, and for analyzing modes of interpretation that give rise crossculturally to extremely diverse forms of illness realities and their management. I have tried to develop this analysis in a way consistent with an epistemological position counter to that which I criticized in the first chapter. I turn next to a discussion of the semiotic structures that mediate knowledge and experience of sickness, before moving on to the investigation of the social and cultural shaping of illness as a mode of human experience.