CHAPTER 6

FULL SPECTRUM MEANS AND ENDS REASONING

> *"...something unpredictable, spontaneous, unformulable and ineffable is found in any terminal object. Standardization, formulas, generalizations, principles, universals, have their place, but the place is that of being instrumental to better approximation of what is unique and unrepeatable."*[1]

The first part of this chapter recapitulates and fleshes out a portrayal of how means and ends reasoning works in practice. The second part of the chapter will offer suggestions for bettering our individual and institutional capacity for deliberation and judgment. The glory of the medical art is the creative ways it negotiates the interface of fact and value, weaving the two together.

FIRST PART. INFORMAL JUDGMENT AND THE ART OF MEDICINE

Behind the closed door of every examination room there is a surprise. Whether the patient is familiar and has a routine problem named on the chart, or is a stranger with a mysterious complaint, no true physician can open that door without some thrill of anticipation. Something new is about to happen. There is always at least some surprise. Is it an adolescent with a sore throat whose arms, when the pulse is taken, reveal neat parallel scratches of self-mutilation? Is it a newborn whose father says, "Remember, you treated me for meningitis when I was at college in 1976?" Perhaps it is a little girl who was bitten by her pet mouse, and when asked why, says, "I squeezed it too hard." Or maybe you pull back the curtains in the emergency room to fine a 96 year old woman whose skin is so fragile it comes off with her socks, but she reaches up to straighten your tie before she can tell you her troubles.

Sometimes action must precede any chitchat. The patient has a falling blood pressure and is becoming confused. On another occasion, seemingly idle talk during the freezing of a wart leads to the discovery of an unsuspected pregnancy. Perhaps the workup for a patient's numbness in the feet reveals not a neurological disease, but a short in her electric blanket. The balls of uncertainty are always up in the air. There are times to keep the eye fixed on one, but it is well to remember that others are circulating.

Haste really does make waste. We cannot be open to possibilities when we have a fixed agenda. Recognizing that there are instances when speed is of the essence, assumptions must be made rapidly, constellations of signs and symptoms recognized hurriedly and acted upon; still, such instances should be few. The pursuit of a preordained end along the shortest, cheapest path between beginning and end

points which are presumed to be known and unalterable is rarely all that can or should be going on. Lost opportunity might not make a return visit.

I have argued that informal means/ends reasoning, exemplified in but certainly not exclusive to medical care, applies to situations and in contexts which are inhospitable to formulaic treatment. The prevalence and variety of such situations is larger than has been appreciated. Unexpected contingencies frequently intrude even upon encounters which initially look routine. The full spectrum consideration of means and ends makes use of all our abilities: perception, knowledge, emotion and reason.

To get any endeavor off the ground, there must be many unconscious or unexamined assumptions already in place. Means and ends deliberation *this time* necessarily involves a limited number of matters. How stringently limited such matters are depends on the clarity of the problem, the level of urgency when it becomes clear, the degree of typicality, the detail and seriousness of agreed commitments, and whether the endeavor to be undertaken is immediate and specific or long range and comprehensive.

While formulaic protocols and decision trees have "decision nodes," these are only metaphoric forks in the shortest roads to fixed ends. At such nodes, alternatives are excluded in a compulsory fashion depending on particular prescribed inputs. Such allowable inputs are "facts" captured through specified investigation. No inputs outside of the specified ones are recognized to be significant. Investigative nets of this type insure thoroughness and rigor in a limited way. It is presumed that nothing which could go around or through them is relevant.

We have seen detailed reasons in the previous chapters why informal means/ends reasoning is different. Adapting to fluid contexts, it takes account of the non-classical internal structure of categories as well as their vague, shifting and overlapping boundaries. It selects metaphors for causation judged appropriate to the circumstances, rather than using only the billiard-ball model. It considers what *level* of causation to address, recognizing that proximate causation at the level of middle sized objects is only one among many types predisposing to an event. Such reasoning can conceptualize the pursuit of ends in terms of progeneration, nurturance, adventure, exploration, acquisition and so forth; not merely as a journey with only cost and length needing to be minimized.

Compared to formal procedures moving from concrete "facts" to fully known goals, informal reasoning looks differently at ends. They can be evaluated in terms of each other, criticized and adjusted. They can evolve and be transformed. They depend upon particularities: person, place, time and practicality. In addition, as Dewey brought out, means and ends interdigitate. Processes are partly products and products are parts of new processes. Some ends are effective as lures, or final causes. But they can fail in this role. Then intermediate motivators ("ends-in-view") can be sought, and roundabout approaches taken, to valued but not yet sufficiently desired long-term ends.

Means, despised in theory, turn out in practice to have their own great satisfactions. Value of whatever kind is often recognized by informal means/ends reasoning

to be spread out over endeavor, not simply concentrated at its terminus. Furthermore, specific values attain their significance not by themselves, but in relation to one another. Informal reason considers the effects of harmony and disharmony on the mutual enhancement of particular ends.

Instead of the "decision nodes" in algorithms, informal reasoning centers on what I will call "foci for judgment." Such foci are centers of concern; the various matters which are potentially up for judgment in one endeavor or another. They are locations of meaning in a metaphorical "cognitive space," not points in physical space or time. Inputs to and outputs from such foci of deliberation potentially come from and go out to all of experience; past, present and future. At these foci, interacting facts and values are brought to bear on problems of action, always with one eye open for novel possibilities.

Many matters for judgment have emerged in the previous chapters, and I will not try to review all of them here. There could be no exhaustive list, considering all the surprises that experience has yet to reveal. But, to recapitulate and offer illustrations, I offer some of the important foci of judgment here.

1. Judgments About the Setting

In the example of medicine, clinical judgment takes account of and depends on the setting. When the setting is accustomed and stable, few decisions related to it are needed. But unusual settings or changing ones affect what can be accomplished. Judgment becomes activated in adapting decisions to the setting. It makes an obvious difference whether care is occurring on the street, in a clinic or in the hospital. It makes an obvious difference whether one is working in a tent near battle lines, an impoverished clinic in Afghanistan, a rural area or an inner city, a helicopter or the intensive care unit of a university hospital. The availability of resources including information, specialty care, medication, equipment and transport has to be taken into account in deciding what to do. Within any of these settings, activity can be affected by sudden shifts. Disasters call for triage, shortages for substitutions, threats for security measures, epidemics for higher indices of suspicion.

Regarding diagnosis, the Bayesian concept of "prior probability" is all about assessing the setting. For example, in a college health setting working with generally healthy young adults, very few laboratory tests are likely to turn up positive diagnostic results. The sensible practitioner learns in this setting to be very conservative about conducting "fishing expeditions" for pathology. But in an emergency department used by many old and/or very ill people, the yield of positive and significant results on extensive testing is generally much higher. In this setting, it is proper to conduct much more aggressive diagnostic testing lest something important be missed. A sense of what is likely to be found, or researched data on "prior probability" if available, affects the chance that specific investigations will make a difference. Even when adequate numbers for formal Bayesian analysis are lacking, informal reasoning can supply appropriate "fudge factors" to specific patient populations in particular settings. These will change decisions regarding effective diagnosis and treatment.

2. Defining the Problematic Situation

For Dewey, as we have seen, a "tertiary quality" fuses cognitive, sensory and emotional awareness into a problematic situation. Remembering that a "situation" does not exist apart from participants in an environment, "tertiary quality" names an integrating mechanism which ties the elements of the situation together. The problematic situation is characterized by indeterminacy, dissatisfaction and unease, indicating a need for inquiry, means/ends deliberation and action.

We are all potentially involved in several situations at once. This presents the problem, to be addressed by future philosophic and psychological work, of how exactly they color each other. It also presents a practical problem for informal reasoning in any particular set of circumstances. Which one or ones of the concomitant situations should be attended to first? This issue needs, at least tentatively, to be decided. Then, when we commit to collaborative involvement in addressing situations with others, we need, for the sake of effective mutual action, to be sure that our individual situations intersect. The overlap must be substantial in order to support a shared endeavor, although absolute convergence does not seem necessary. In fact, patients, for instance, are often very forgiving toward doctors who have multiple responsibilities and cannot immerse themselves wholly in the patient's particular situation. Such generosity represents an openness of patients to admit consideration of others as relevant.

Similarly, physicians and other caregivers should recognize that patients have more than one concern; and in particular, that they have lives outside of their illnesses which not only are ongoing, but which in the large determine the very importance of dealing with the illness at all. We are not, despite what our doctors might think, illnesses with lives secondarily attached any more than we should be, for our dentists, teeth which coincidentally are in people. Mutual forbearance and accommodation of the differences for participants in overlapping situations helps minimize friction caused by incongruities. Any pretense that participants are not engaged in situations apart from the shared one at front and center is potentially counterproductive.

The training and socialization of professionals and the structuring of institutions providing for their work is enhanced when it supports the shared identification of situations between them and their clients. Thus there needs to be constant vigilance regarding conflict of interest as well as encouragement (instead of the usual discouragement) of feedback from clients encouraging accountability, and emphasis on understanding the perspective of others. But no matter how well care systems and training (in the case of medicine) are designed to align the concerns of patients and caregivers, there will always be work to do in particular cases.

On occasion, it is easy to step into a well-shared situation as happened once to me when I was walking in to begin my shift at the emergency room. A sweating middle aged man drove under the entrance canopy, opened his door and fell out of the car while clutching his chest and saying: "Help! I'm having a heart attack." In such a situation, every instinct and habit of the caregiver is attuned appropriately.

In other instances, however, mutual participation in a common situation is seriously incomplete, and efforts are needed to bring the parties into a workable alignment. For example, I once treated an older physician who came to the ward with congestive heart failure. He said, "I gave myself a shot of merc[2] and it didn't work, so I came here to die." As I saw it, the situation was problematic in that an adequate treatment for congestive heart failure needed to be found. As he saw it, he needed morphine – not for treatment – but to be comfortable and die in the hospital without excessively distressing his family.[3] The incongruence in our situations needed serious work.

"Getting on the same page," as the expression goes, can require adjustments of perception by any of the several participants or by all of them. Sometimes such adjustments fail, and then either the enterprise must be abandoned or one party must take control coercively. The latter occurs when patients walk out "against medical advice" or physicians take them to court to impose treatment. It also occurs in cases of toxic delirium, psychotic thought disorder and panic, for example, when actions may be required to get the patient out of a situation which she or he cannot assess adequately. States of confusion, obtundation, paranoia and panic may preclude participation on the part of the patient in any constructive response. But for the most part, the appreciation of discordances in the apprehended situation is the job of reflective inquiry, while the matter of resolving them requires dialogue and flexibility.

Cultivating the proper degree of mutuality is one task for informal reason in establishing concerted action. Remaining open to the emergence of unnoticed or novel factors which could be relevant is another. Indeed, there can be latent "actual" or highly important situations hidden behind the initially "apparent" ones. Indications that more is going on than we thought can supersede preliminary impressions. Such revelations often identify what we finally conclude is "really" at issue.

For example, a situation can be vastly different than it appears when a caregiver discovers that some of her own important assumptions are not shared by the patient: The patient might not share the physician's "scientific" view of the causation of symptoms; the patient might have very limited resources–no financial support, no family and no home; the patient could be unusually suspicious and mistrustful;[4] the expectations for what can be accomplished might be very discordant between caregiver and patient; differences of economic, cultural or religious background could cause unexpected offense; the patient might be far more expert and up to date on the science of his diagnosis than the physician; threats of violence or of lawsuits could crop up; it might come out that the patient had one of several agendas other than getting better; a family might have exhausted its ability to cope with relatively mundane symptoms or problems; a patient might not be able to communicate honestly in the presence of a friend or family member; and initial investigation could uncover unsuspected, medically serious problems so radically different from those expected that their finding would transform the situation for all concerned.

Clinical acuity is thus pressed into service to confirm the nature and extent of situational boundaries. The focus of judgment centered on ascertaining and redefining the relevant situation can be quiescent, but it is always potentially active.

3. Judgments About the Problem[5]

Whereas a problematic situation is characterized by potential, latent or manifest unease and dissatisfaction, it takes further inquiry to specify the problem as well as what aspects of it can aptly be addressed. In the instances of prevention and discovering latent or incipient disease, it even takes inquiry to uncover an unsatisfactory situation about which there is no initial unease. We may actually have to generate worry (a very unpleasant process) to arouse interest in prevention.

Just as perceptions of the situation are not usually entirely shared, perceptions of problems among physicians or other caregivers and patients do not entirely overlap. The parties involved must educate one another about unshared aspects of the problems as they see them. Dialogue of this nature helps formulate a problem amenable to mutual action.

In general, patients want relief from symptoms and physicians want diagnoses, although both goals are often shared. The patient is usually dealing with the problem at the level of the symptom, whereas the physician seeks a diagnosis explaining the symptoms and as a key to definitive treatment. We have seen that symptoms are the literal and most basic core elements out of which concepts of illness develop. There is a focus of judgment, not a decision node in a protocol, about deciding whether and when symptoms should or can be alleviated prior to the establishment of a diagnosis. This often requires negotiation. Diagnostic protocols, however, prescribe and judge evaluations solely on the basis of adherence to themselves, never minding that the patient has a say in whether to sign on. There is little appreciation of the fact that patients undergo pain or discomfort, delay, anxiety, indignity and expense in the pursuit of a diagnosis. There is almost no provision in any diagnostic algorithm for measures needed to elicit consent and intelligent participation on the part of the patient. The quality of participation in a medical history or exam is often influenced, for example, by the presence of pain, nausea, vertigo, anxiety or fever. Relief of at least some symptoms is an end-in-view which serves as a means to reaching the sometimes more distant end of a diagnosis and definitive treatment.

The *process* of diagnosis needs the kind of attention which has heretofore been paid only to the outcome. For one thing, a diagnosis may not be forthcoming quickly or ever. Meanwhile, the patient is living with the symptoms. For another, failure to address issues of comfort, combined with the imposition of various indignities, expenses and ordeals, discourages some people from seeking or co-operating in needed care at all. Therefore, problem-defining activities work best when tailored to individual personality, symptom severity and tolerance. Any protocol, guideline or algorithm for diagnosis needs to be supplemented and tempered with compassionate discretion. Unfortunately, retrospective reviews for "quality of care" fail to acknowledge the existence of individual factors at all. A robot applying the protocol

mechanically would get higher ratings on such a review than a compassionate and flexible clinician. The robot would do less of use, but look better in retrospect, solely because of the myopic view of value incorporated in the protocol..

In the instances when problems are not clear cut, a degree of leisure may be required to formulate a problem constructively. Very few problematic encounters requiring means/ends reasoning are so emergent that rapid decisions are worth the concomitant risk of tackling the wrong job. In medicine, a relationship of mutual understanding and trust needs to be established, often before much else can be accomplished. Stories and anecdotes must be told and insights shared, often unrelated to the apparent trouble. Frequently, several visits giving routine, minor service in a conscientious way open up the possibility for more significant service later. Another detour frequently needed to facilitate problem formulation is simply *letting time pass.* Patients need time to assimilate first impressions and reflect on them, as well as to decide how to use opportunities which have been offered. In the case of the physician, time for imaginative reflection and research can be essential. There are innumerable instances in most practices when reflection at the end of a busy day facilitates the formulation of a problem. Also, the passage of time is the best of all diagnostic tests whenever it is feasible to wait for a disease or problem to "declare itself." Many an ill-advised diagnostic test could be obviated if waiting a day or two was considered an intelligent and tolerable option. But patience is built on trust.

Finally, problems can be so unique that they do not sort well into diagnostic slots. In such cases, the problem discovered and its relation to established categories can afford new knowledge. For example, one patient with all the findings of a type of vascular inflammation called Kawasaki disease developed shock (low blood pressure with inadequate organ perfusion) and disseminated intravascular coagulopathy (diffuse clotting with consumption of clotting factors then leading to bleeding). Initially, this patient was treated for toxic shock syndrome and septic shock, since no expert had heard of shock or coagulopathy with Kawasaki disease. But "just in case," she also received intravenous gamma globulin, the treatment of Kawasaski's. In retrospect, no evidence for toxic shock or sepsis was ever found. So when the patient had a relapse, she was treated solely for Kawasaki disease with a complete response. From this case alone it could be concluded that Kawasaki disease may lead to shock and disseminated intravascular coagulopathy. A focus of judgment within the general category of defining the problem is thus how to classify a constellation of findings when they fit all known categories imperfectly. Whether to consider such a problem as allied best with one category, or as truly partaking of characteristics of two or more is critical for planning action. There can be no recipe for such a decision.

Most patients perceive themselves even at a given time to have several actual and potential medical concerns, not just one problem. Doctors recognize their patients to have multiple problems as well, although the list might not be the same. Some important work involves reconciling these lists. And prevention often requires imaginative rehearsals to conjure up visions of covert or future trouble. Primary

care relationships (whether they be with a generalist or a specialist) have long been recognized as vehicles for working on these problem lists, in contrast to episodic care focused mainly on a single priority. But in either setting, the complete ensemble of problems affects the inquiry into and the resolution or palliation of whatever problem gets cast as the first order of business. Determining the degree to which that problem can be treated in isolation from the rest requires clinical acumen, and is another focus of judgment related to problem setting.

Suppose, for example, that there were standardized guidelines for the treatment of diabetes, asthma and depression, but one patient suffered from all three. Not only would this person have several diagnoses, but she or he might "have" each of them in a partially unique way. Modifications to all standard guidelines would be needed. Priorities would have to be juggled. Problems as well as their proper treatment are matters for individual and not only categorical judgments.

4. Judgments About Ends and Values

As shown by Dewey, some values are imported into means/ends endeavors and others are generated in action. Contractual obligations, for example, are established at the outset. In the case of medical care, default values such as that harm should not be done, suffering relieved, life prolonged, confidentiality maintained, and autonomy respected are in force unless such goals come into conflict with each other. When conflicts among these basic values arise, judgment and negotiation, not rules, are needed to establish a workable equilibrium. Establishing that equilibrium is a focus for judgment which is always to some degree active.

Patients and physicians are constantly confronted with tradeoffs among plural ends. These are not always so dire and fundamental as the tradeoff between suffering and survival, autonomy and recovery,[6] or between certain disability and some risk of death. There can also be choices between sedation and pain, candor and kindness future suffering and present pain, independent living and safety, blissful ignorance and anxious knowledge, or headaches and eating cheese.

Obviously, the availability of choices alters in the course of experience. Some options open up; others are foreclosed. However, besides affecting choice options, experience changes our goals. New perspectives alter the importance of previous concerns. Old values come into question and are critiqued. Our bodily abilities and desires change. We "learn the value of" new things and "learn to value" some old ones more, and others less. We find that hopes and expectations can willfully or involuntarily be revalued.

Medical care, like most goal-directed activity, reveals itself to be a process containing, and not merely attaining, value. Means are not dominated by or subservient to ends, but reciprocate with them. Some acts and experiences look more like means, with value external to them, and others look more like ends – immediately satisfying. But neither means nor ends are pure. Also, values, as argued in Chapter Five, are not self-sufficient elements isolated one from the other. They resonate. They clash or harmonize. They weave into aesthetic and narrative

wholes. However, they are qualitative, not quantitative. Their resonance depends on qualitative contrast.

So care has multiple goals, as enumerated above. Among them is the added goal of maintaining and enhancing its own value as an activity. So a frequent focus for judgment in the delivery of care is to consider the effect of what is being done now on the efficaciousness of the institutions, people and skills of the profession itself.

Life does not cease at the hospital entrance and resume at the exit. Much of value goes on within, both in the instrumental, extrinsic sense and in the intrinsic and final sense. This is why "outcome" cannot be attended to as though it were severed from "process." Every element of process deserves careful consideration to enhance its participation in the value of the whole.

5. Judgments About the Treatment

Because individuals and their situations are more or less unique, because resources and skills available vary from place to place and time to time, and because discoveries in medical science occur daily, treatments are more or less unique as well. The tolerance for risk, varying valuations of particular outcomes, and the possible benefit or harm of taking a particular chance based on such valuations also add to a general need for flexibility in treatment. The need to apply judgment depends largely on the typicality of the illness and situation of the patient and the caregiver. Judgment about treatment focuses on all the specific factors which individuate one therapeutic endeavor from the others; person, place and time. This major and continuing focus concerns how to adapt general knowledge, values and skills to the particular.

Treatment also exemplifies Dewey's point about learning as you go. The skilled caregiver remains vigilant toward all feedback. How is any particular treatment working? How does the patient experience the effect? Are any such experiences altering previously desired ends? Does the treatment response reinforce or call into question earlier conclusions about diagnosis? Is the particular response telling the caregiver something new about the disease? Are there any researchers currently investigating problems which have come up in the course of this treatment? No formula gives the answers to these questions and most discourage even the asking of them.

SECOND PART. PROVIDING FOR THE ART OF MEDICINE

The art of medicine, and the character virtues on which it depends, are surviving in spite of conditions in Anglo-American medicine; not thriving because of them. Once we recognize, as readers of this book hopefully will, the nature and importance of that art and its underlying virtues, we will naturally wonder what could be changed so that these are encouraged, and not frustrated. This section offers a few suggestions in that direction, with confidence that many others would be forthcoming if our educational, legal, research and care institutions were to recognize the need. These suggestions are preliminary, undoubtedly controversial, and are certainly not the

last word on the subject. I have divided them into sections relating to various institutions and practices.

1. Medical Education and Health Care Education in General

Life experiences, and not just scientific aptitude, need to be taken into account in recruiting and selecting health care students. This means that students of various ages should be accepted, not just those who have graduated from college at age 21. Nurses, medical technicians, farmers, stockbrokers, military people, teachers and others add to the educational mix of a medical school, for example, and bring important perspectives to traditional medical students. In addition, a medical student body needs strong multicultural representation, not for the sake of the minorities accepted, but for the sake of other students also accepted and for the sake of the profession as a whole. Among "minorities" who should be encouraged to apply are, very importantly, the ill and the disabled, as well as those who have either survived serious illness or dealt with it in their families. Such students would bring to a medical class a much needed dose of realism about the experience of being a patient. They would bring, hopefully, some appreciation for what goes on in the lives of patients and families outside of the direct medical encounter, and of how that wider experience largely determines the value of that encounter.

Given the great multiplicity of roles in medicine, including research, practice, teaching and community outreach, medical schools should seek undergraduates with interest and experience in the humanities and the social sciences, as well as those in engineering and the biomedical sciences. The efficacy of the healing professions of course depends on sound and well-learned science; but it also depends on engagement with patient and community facts and values. A profession dominated by people passionate for cell biology and genetics alone is not a profession which can reach whole persons and interface well with struggling communities. The profession needs diversity of interest for effective balance just as a person needs balance for health.

Preclinical and clinical training could also better support sound informal reasoning, deliberation and judgment in the practice of medicine. There was once a tradition of future doctors acting as orderlies (now known as "technicians"). This should be renewed and strengthened. Potential physicians need to know first hand what patients experience in the halls while waiting for procedures, in the emergency department while waiting for help, and in their rooms after ringing the buzzer in distress. They need to see close up from the patients' and families' eye view what a hospitalization or outpatient experience means.

This process of staying close to the patient should continue in the pre-clinical years. There should be chances for medical and nursing students to listen to the unstructured narratives of patients: to the stories of their illnesses and their efforts to cope; to their accounts of encounters with doctors and medical institutions; to their stories of seeking care and trying to find ways to pay for it. We need, in fact, a whole course in the preclinical years which is supplemental to the courses given on medical histories and physical diagnosis – a course on patient experiences.

Medical students by and large arrive at school with the idea that they should become skillful in order to serve patients. Unfortunately, the four years of medical school often communicate another idea: That students are learning to serve an ideal called "health" (assumed to be precise without having ever been precisely articulated), and that their job will be to foist this ideal on patients. We should not inculcate an ideal which has an abstract existence outside of actual patients. Such an agenda leads to the view that patients are obstacles to the external ideal, and not the very parties who ultimately determine what ideal goals should be in play. The perception that patients are difficult, stubborn, and foolish increases when ideals are anchored outside of those patients. This perception, whatever real justification it might sometimes have, becomes exaggerated and gets in the way of accomplishing anything. It would be well to replace the concept of ideal health with the concept of the possible, relative to particular patients. Training should focus on that point.

To facilitate wise decision making, the medical curriculum needs to focus on functioning with uncertainty, not arriving at premature certainty as though it was required for functioning. Professors should reveal the well-kept secret that not everything can be diagnosed to fit our existing categories of illness. They should admit that "illness" is not a univocal concept, but a vague one with borderline cases. They should acknowledge that triage is not something that happens only after a train wreck or a bomb explosion, but that it happens all day long every day, because not all concerns can be met at once – they have to be prioritized. Instead of teaching students that they have to do everything, and that anything less than absolute adherence to the ideal is total failure, the educational system needs to get real and teach how to prioritize – how to do the most necessary, the most practical, and the most important items for and with the patient first.

Clinical teaching needs to emphasize that there are many ways to the promised land. Tertiary hospitals are not always the best place to be. The gold standard of care in Massachusetts is, surprise, looked down upon in Texas and California. The "mandatory" prophylactic colonoscopy enjoined by the American College of Surgeons is, wonder of wonders, an air contrast barium enema when ordered by the radiologists. Schools need to teach that recommendations which are at odds with one another can in some circumstances, far from being a scandal, be beneficial to medicine as a whole. Teachers need to be more tentative and less dogmatic, more skeptical and less religious about their current recommended practices.

We need to recognize, once and for all, that diagnoses are in patients. Patients are not diagnoses. For one thing, as noted previously, they often have many diagnoses, uniquely mixed. For another, the importance of their diagnoses is for their lives, not the other way around. Patients do not and never will do everything their doctors tell them This lack of compliance is not, as medical education traditionally has let young doctors think, pure irrationality. If physicians were to ask why patients fail to come in for follow up, for example, or fail to get their prescriptions filled, or fail to take medications or comply with dietary and lifestyle advice, the patients would offer many sound reasons. Physicians need to hear these reasons and make allowances for them. Instead, we are taught an "all or nothing" approach to good

care which too often results in patients going AWOL. Medical schools need to teach students how real patients act and how to deal with those realities, not send them out furnished only with rigid agendas which fail to interface with actual lives.

Finally, let us take a critical look at hierarchies in medicine and the ordeal theory of medical education. Medical training is difficult enough without unnecessary shaming and humiliation for the trainees, and without subjecting them to impossible hours and patient loads, especially, at times, without adequate supervision and help from attending physicians. With the entry of women into medicine and a little help from the nascent efforts of medical residents to bargain on their contracts, some earlier abuses have been mitigated. And of course, there are vast differences between the various programs, with some being collegial and others completely authoritarian. But too often, the graduate of a training program which resembles boot camp, who has survived unnecessary hazing and servility, now thinks of him or herself as better than others and somehow deserving of special honor and recompense. But that is the very attitude that gives physicians the reputation of arrogance and greed with the general public. In the name of the humility we need and not humiliation which is compensated later by pomposity, the schools, by example as well as precept, should teach mutual respect and cooperation.

Collegiality also means sharing of knowledge, not thinking of it as something which should be anyone's private property. Some senior physicians share knowledge freely with students, patients and other caregivers. Instead of rattling off the legal minimum to obtain "informed consent" from patients, they engage in teaching and learning give and take. Instead of intimidating students by ridiculing their ignorance they encourage and value questions. Instead of withholding secret and esoteric knowledge in an attempt to impress nurses and other team members with their own significance or that of their specialty, they enjoy enlightening and empowering others. Instead of clinging to the small comfort of being special through separation, they have the great comfort of honoring and nurturing common humanity. These are our finest teachers and the models for a better medical education.

2. The Course of Medical Care

It would be wise, in order to locate our medical encounters properly in lives, to ask patients whenever possible, an open ended question such as "What is going on in your life right now?" We should set aside time to listen to the answer. In addition, as often suggested, but more often honored in the breach than in the observance, we should give most patients a few minutes to give a freewheeling, unstructured account of their problems. People like to tell a story, and they like to think their stories are worth hearing. It is very difficult to bond with a caregiver who starts right out managing the way you tell your tale. Doctors are not usually well taught the elemental fact that communication is a two way street. The specific, very useful and very structured medical history can afford to wait a bit, in most circumstances, while the patient gets a little off his chest. Then, the caregiver must look for the uniqueness and interest in every situation, as well as the features it has in common with others. And the caregiver must be attuned to what the patient is ready to hear,

and not go on like a tape recorder just to prove to a later chart reviewer that advice (even though counterproductive and not worthwhile for *this* patient *this* time) was complete. In other words, we cannot hold ourselves rigidly to routine advice about "procedures, alternatives and risks" simply to look good on paper, but must tailor all our comments to the people and the circumstances.

The industrial model of "productivity" in medicine has to go. No one knows how to judge productivity except in terms of the money brought in. There is no insurance or health maintenance administration, and no government review process which can, given current assumptions, measure the real value of the "product" of care. We should encourage very broad-based measures of value used inclusively. Survival alone has little meaning apart from quality of life. And the quality of treatment and results for any one condition does not necessarily correlate with the overall quality when patients have multiple conditions and concerns. "Patient satisfaction" at any given time is very tenuously related to long-term benefit. So, if we are going to assess results we need to take a much more sophisticated and complete view of what those are than we have done using narrowly focused snapshots.

Administrators have decided that they can reform and revolutionize care by imposing industrial methods of production and evaluation on professionals. However, they usually do not bother to find out the reasons why things are as they are, and they do not want to hear what caregivers have to say about the administrative initiatives. The mantra of administrators is that professionals are "resistant to change." This resistance is supposed to result from territoriality and laziness, or perverse conservatism. However, everyone knows that caregivers have not resisted drastic changes resulting from advances in medical science and technology. There is resistance based on the real inappropriateness of the industrial model, and based on the fact that the industrial initiatives are imposed by administrations rather than grown organically out of practice. "Information technology," in particular, has come from the top down and has been imposed indiscriminately, at great cost, rather than used selectively. Physicians are letting computers, both literally and figuratively, come between them and their patients. Recording care has become more important than giving it.

Furthermore, time is of the essence, but this does not always mean that haste saves time in the long run. It is better to spend a longer time on one visit actually listening to the patient, addressing at least some problems adequately, and eliciting a good chance of understanding and compliance, than to do a superficial job in haste, generating numbers for the administrators and shekels in the till, but failing to make real progress. A few longer visits will often prevent multiple unnecessary ones later.

And speaking of shekels in the till as well as monetary measures of production, physicians in general charge too much. They are separated by an economic chasm from most of their patients. Illness should not be the reason for major wealth transfer from the sick to their caregivers. A partial solution to this problem would be a requirement to post charges publicly so that patients would have some idea what they were getting into financially. Doctors are well known to be ignorant of

the costs of the tests they order and the drugs they prescribe, if not of their own charges; and all these prices should be made public up front.

The relationship among different caregivers is another aspect of care which needs scrutiny. There is a lack of respect and valuation of nurses, their skills and their insights in the health care profession today. Should we be astounded that there is a nursing shortage when nurses are not respected for their skill, intelligence and insight which they have to offer, and not especially valued for their unique closeness to patients? Should it amaze us that underpaid and overworked nurses frequently drop out of the field? The medical profession needs to count the terrible cost of turnover among nurses. Such turnover disrupts critical relationships with patients, causes unnecessary short staffing, and increases costs of recruitment and education. It is all too rare to see a physician explaining a procedure or a finding to a nurse. But again, knowledge and skill should not be regarded as a proprietary secret for the medical profession. Nurses who could be drawn into a more collaborative and central role in care represent the greatest waste of a resource in the health professions today.[7]

Another relationship which needs to be further examined, granting that there are some existing efforts in that direction, is that between specialists and primary care physicians. When primary care physicians are treated as screeners and gatekeepers, and when the relationships they can develop with patients, families and communities are not valued and encouraged, then they are naturally seen as having relatively little to offer in the way of skill and value. But, as I have tried to show in the previous chapters, and as others before me have kept crying in the wilderness, relationships with whole patients as opposed to eyeballs and kidneys, are crucial. And preventive care is crucial. Until our society begins to honor primary care and give it recompense which is closer in line to that of specialty care, primary care physicians will be treated too often as second class citizens of the medical community.

Specialists and the secondary and tertiary centers where they work are often neglectful of primary care practitioners. The office notes, letters, and previous hypotheses and work-ups of the primary care physicians may be ignored or needlessly duplicated. Specialists frequently fail to ask for ideas from the primary care physicians, not realizing, as I have tried to emphasize, that a good idea can come from anywhere. Feedback to the primary care doctors can be poor or even non-existent. The result of these problems in primary care is again, shortages, turnover, lack of continuity and poorer care in general.

In general, turnover is bad. The relationship of continuing caregivers with patients is, for the many reasons given throughout this work, the foundation of good medicine. Any physician knows how much more satisfactorily, on average, the entire visit goes when the patient and physician have an ongoing relationship of familiarity and trust. The efforts of medical schools to have students follow patients for several years should be applauded. Confined or complicated patients need an occasional home visit from their own nurses and doctors. Physicians need to take another look at flexible clinic hours so that patients can see their own doctors as

often as possible, instead of being referred to strangers in urgent care clinics and emergency rooms.

This is not to say that a patient cannot have a continuing and relatively comprehensive relationship with a specialist or even an emergency physician. These relationships also should be encouraged when much ongoing specialty care is needed. Specialists as well as generalists need to be selected for and trained in the professional virtues. And these virtues grow in relationships among caregivers and between caregivers, patients, families and communities. The art of developing and growing in all these relationships is a great part of the art of medicine: And on the foundation of such relationships, good judgment can flourish.

3. The Integrity of the Health Care Profession

A profession which fears diversity of practice, customized treatment, and informal judgment is a profession which attempts to hide its responsibilities behind rules. A profession in which members seek to abdicate such responsibility by subscribing to impersonal, averaged-over and legalistic "standards of care" is a profession of fault-finders and not a profession characterized by mutual support and improvement. The standards we seek are illusions whenever contexts vary. And as defenses, they are traps. Physicians are undervaluing their greatest talent, the ability to adapt resources to needs. The medical profession has allowed the public to believe that there is only one way to do anything; that all actions are classifiable in categories, and that the labels of such categories dictate the best actions. A public which believes in a simplistic Holy Writ of good practice is a public ready to misunderstand subtleties. We can pretend to have abdicated judgments even though we know we make them all of the time, or we can showcase the value and importance of judgment and ask the public to help us make it better.

If caregivers were to drop the pretense that they always adhere to a single gold standard; if they were to stop dictating boilerplate notes which were window dressing only, and which misdescribe actual encounters; if they stopped pretending that they had secret knowledge on which they had a patent; if they made it plain to all that they shared common human foibles; and if they realized that other callings and ways of life were equally as special and important as their own; then they could elicit trust and support from an intelligent society.

CONCLUSION

Means and ends deliberation is properly broad, not narrow; dynamic, and not static. The categories it uses are not classical, but are radial, generated by various imaginative modes of extension from prototypical core examples. It conceptualizes problems and situations metaphorically, taking advantage of basic embodied image schemas and applying them imaginatively to domains which lend themselves to this type of understanding and no other. Among such conceptions are multiple metaphors

for and levels of causation which fail to be analogous to logical entailment. Anglo-American medical care exemplifies such reasoning with its complex, multiply metaphorical conceptualization of disease and the causation of disease.

If anything typifies full-spectrum means/ends reasoning it is reciprocity, as opposed to rigid compartmentalization. John Dewey discussed the interrelation of means and ends extensively, as well as the dynamic and not static process involved in developing and attaining ends. Qualities as he thought of them cannot be reduced to any underlying quantity. Yet, they relate one to another and affect one another in the processes and outcomes of means/ends activity. Balance or harmony, much as Aristotle understood it, has much to do with this relation of qualities. Mutually enhancing contrast partially describes this balance. Narratives are arrangements over time which allow qualities in experience to form an array in which they are mutually enhancing.

Values are realized in narratives that relate process and product without compartmentalizing them. Good medicine is the intersection of many narratives. These narratives realize old values only as they rejuvenate them in the creation of the new. Because values support each other and are neither isolated nor fungible, expected utility theory is not suited for application to most aspects of an endeavor like medical care. Qualitative, dynamic and interacting values just cannot be modeled on the number system.

Emotion is an essential part of medical judgment. If we think that it leads us often astray, there are ways other than cutting ourselves off from it, to correct many of its errors. Despite the usefulness in certain instances of conceptualizing mind as a machine, the mind is not a machine. It is what has been meant traditionally by heart and soul as well. Let us temper distrust of our own capacities for means/ends deliberation with an appreciation of how, why and when they do work well.

There is an inverse relationship between virtues and rules. Whenever virtue is lacking, rules are called upon. When rules are felt to be self-sufficient and superior to judgment, then the cultivation of good judgment, as well as the intellectual and moral virtues underlying it, languishes. But rules have glaring defects, as detailed here. The healing professions need to recruit, entrain and respect the virtues that make us worthy of trust. This is not to say that the particular emotional attachments which drive and motivate individual practitioners should be the paramount virtues of public policymakers. Indeed, objectivity, justice and fairness are essential in formulating policies which must apply to all, such as government regulations and the financing of health care. However, the impartial policymaker must be aware of the limits beyond which impartiality will not carry him. Unless uniqueness of caring and care is allowed its proper place overall, the general enterprise of medicine will fail.

Although the health professions use and still exemplify the use of informal means/ends reasoning, many caregivers have been in denial of that fact, and others fail to appreciate it. A profession is not an industry and cannot function or be assessed like an industry. Attention to the many aspects of means and ends deliberation which have been outlined in this book would benefit health care and other humanistic professions.

NOTES

[1] John Dewey. *Experience and Nature,* p. 97.

[2] Mercurhydrin; a toxic and now obsolete but very effective diuretic.

[3] And it turned out that he was correct in his perception. Our "modern" methods failed just like the "shot of merc" and he died suddenly on the second hospital day.

[4] An important cause of mistrust is previous failed encounters with medical care.

[5] Dewey often used the term "problematic situation," knowing that defining the situation and defining the problem are often combined in inquiry. The "problem" and the "situation" are part of each other, although somewhat separable as foci of judgment. The distinction is partly artificial.

[6] As may be the case in mental illness or with other causes of incompetence.

[7] A number of authors have looked into the problem besetting nurses today, and one in particular, Patricia Benner, has made observations which parallel those of Donald Schön regarding professions in general, and also the critiques of mechanized decision making given here. See Benner, Patricia, et al. *Expertise in Nursing Practice: Caring, Clinical Judgment and Ethics.* Springer, NY 1996 and Benner, P. and Wrubel, J. *The Primacy of Caring: Stress and Coping in Health and Illness.* Addison-Wesley, Menlo Park, California, 1989.