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PRELIMINARY EXPLORATIONS OF THINKING IN MEDICINE*

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Abstract—The hypothesis is offered that physicians employ two different modes of thought which, though interdependent, are in competition. Analytic thought is the reductionist mode of science—explaining things by taking them down to their parts. It is the most public and acceptable mode and is the kind of thought most physicians think they are thinking when they function as physicians. Valuational thought is in opposition to analytic. Valuational thought is an integrative, synthetic, or constructionist mode based on conceptions against which the object of the thought is compared. The conception is the meaning of something we have in our minds. Valuational thought is private as each enriches meanings, and therefore the stored conceptions, through experience unique, in part at least, to the person. Valuational thought appears to be the thought mode of the clinical process as the patient is compared to the stored conceptions of disease, symptoms, etc. Valuational thought is also the primary mode employed in human value thinking. The assignment of Value and the clinical thought process are very similar. Because of this, the argument contends, the increased emphasis on scientific, analytic thought in medicine not only mistakenly tends to drive out valuational thought—the more basic mode of medical thought—but to exclude humanistic considerations from modern medicine since such value actions are also based in valuational thought. It is suggested that a return to a more humanistic medicine will require increased legitimation of and training in the use of valuational thought. The definitions and mechanisms proposed are meant to provide the basis for further research into the nature of medical thought and value behavior.

I am beginning to believe that physicians, without realizing it, use two interdependent but competing modes of thought. One, analytic thought, deals with the technical–scientific and is, in this era, robust, well developed, and popular. The other kind of thought, valuative, deals with the moral and the personal and is less well developed and more private in operation. The mode dealing with the technical–scientific with its apparently greater power seems to drive the mode that deals with the personal into a less accessible position, as though an intellectual Gresham's law were in operation.

Further, it appears as though the medical structure, or paradigm—the organized pool of medical information, conceptions, and beliefs—does not contain or is in conflict with the paradigm or structure in which the personal rests. Indeed, the paradigm of the personal is not even defined whereas the medical paradigm is highly differentiated and systematically instilled into the physician throughout his training.

If these hypotheses are correct, then an understanding of the mechanics of thinking involved in medicine and an awareness of the nature of the medical paradigm—the structure around which that thought is organized—may be an essential part of the remedy of an uncontrolled technology in medicine.[1]

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ANALYTIC THOUGHT IN MEDICINE

The mode of thought most popularly associated with medicine is analytic—the thought mode of the technical and scientific. Indeed, the science that underlies our understanding of the body is a model of analytic thought.[2] Over the centuries that have been occupied in the development of medicine, doctors have, in essence, taken the human body apart bit by bit. Modern medical education, in this regard, tends to recapitulate the history of medicine. The student, in dissecting the body; first in anatomy but then also in biochemistry and physiology, is taught how to think "body". Training in analytic thought is continuous and intensive—almost as if any other way of thinking was "sloppy" or "non-medical" (for which you may read non-scientific).

The analytic thought mode is, by its essential nature, depersonalizing, as each step in the explanation of the body moves further from the individuality of one person's body to the universality of biological process. Indeed, it is precisely that depersonalization that aggrieves us when we complain of the lack of humanistic concern in modern medicine. Ultimately, however, medicine is concerned with persons, and physicians are distinguished in that regard from biochemists, anatomists, physiologists, etc., although each of those disciplines lends its hand to medicine.

BODY AND PERSON VALUATION IN MEDICINE

Let us now turn to the alternative mode, valuational thought. One might also call it synthetic[3] or integrative thought—no term is wholly satisfactory. I have settled (at least temporarily) on valuational or valuative because it seems also to be the thought mode of human values and moral action. *One cannot arrive at human values by analytic thought.*

To see how this kind of valuational thought applies to medicine, it is essential, at the outset, to understand that although physicians frequently deny that they make moral decisions, claiming instead to make only technical decisions,[4] the history of medicine[5] and the daily realities of medical practice makes it clear that much of what physicians do is valuative and moral rather than technical in nature; moral behavior in the sense that it has to do directly with the welfare and good of others.[6]

Thus, even when a physician claims not to be engaged in moral behavior when caring for the sick, the fact that disease resides in persons makes a disregard of the moral and valuative, in itself, a kind of valuative behavior. In the actual care of patients, disease cannot be seen separate from the person in whom it occurs.[7] (Although it is clear that on many occasions, perhaps even most, the course dictated by the technical and the personal are the same—this may lead to the mistaken belief by physicians that the personal has not been weighed or entered into their decisions).

Medicine is concerned with two realms: that of the body and that of the person.[8] A good physician must operate in both realms. (The word "physician" is used here to refer to a clinical practitioner and is best understood in this contest as a "primary care physician". This generally means family doctor, general practitioner, internist or other physician whose primary concern and interest is the care of patients as opposed to some diagnostic technique as, for example, a radiologist).

A treating physician who deals *only* with the body (the technical–scientific) is heartless. The physician who deals *only* with the person is rightly called by his colleagues a "hand-holder". The *art of medicine* joins these two realms; the bridge between body and person appears to be constructed by a weighing and integration of the valuations in each by the physician.

One of the hypotheses, that underlies this attempt to understand thinking in medicine, is that the process of valuation is basic to all discourse between doctors and patients and is an essential part of clinical thought process.

This process of valuation, when it concerns the body is frequently evident. The *valuation of the person*, however, often occurs on an unperceived level.

Body valuation is an essential part of the process of "clinical judgement": measuring and weighing pathological, physiological, biochemical parameters in health and disease. This is the overt subject of the medical school curriculum. Many doctors do, or think they do, nothing else. Even here, perception and acknowledgement of the true nature of the thought seems usually to be lacking. Most physicians would consider their thinking, when they valuate the body, to be scientific—i.e. analytic, when, in fact, it is valuational. We shall see below, after having further defined valuational thought, that usually the analytic thought mode is confined to explaining or making manifest the logic of a decision, or making clear an understanding of biological mechanism.[9] I think this will be easier to show after demonstrating how fundamental to medicine is the consideration of the moral. (It may seem strange to look to a consideration of moral thought to give insight into clinical thought, but it is in that seeming paradox that the advantage lies. We *know* how problematic is thinking about values and thus can both look with a fresh eye and I can ask a measure of tolerance for my speculation. In clinical thought it may not be clear that a problem exists and in any case one may have little tolerance for speculations that threaten such a seemingly functional system.)

Valuation of the person concerns the complex process by which the *patient's* personal valuations and beliefs and those of the group to which he or she belongs enter into the decision-making process. Valuations of the person (the values of the individual) have been much discussed recently as part of ethical decision-making in medicine.[10] It has become relatively easy to perceive these valuations when they deal with large moral questions, such as when to turn off the respirator, organ transplantation, telling the dying patient, and so forth.[11] In fact, physicians are criticized today for taking on themselves the tasks of making moral valuations of this important nature, as though making moral valuations was not the function of the physician.[12]

I believe that the process of *valuation of the person* is an inherent and necessary part of the art of medicine, occurring at all levels of the doctor–patient interaction. This valuation of person is dialogic in nature, involving a give and take between patient and physician.

When it occurs on a small, intimate basis it can be as simple—and as necessary—as helping a patient decide whether his injured back is serious enough to keep him from driving to visit his children in summer camp. The body-valuation of the degree of injury to the back, is seen clearly to be part of the physician's function in making a diagnosis. In instances of this sort, which occur many times a day, the physician is asked to measure and weigh a set of personal valuations. (Importance of the children to the patient, how long since he has seen them, his perception of their need to see him, his beliefs about his back and what a worsened back would mean to his life and work, etc.), against body valuations. (It might be argued that personal valuations are none of the physician's business and that his job is merely to make the diagnosis and to give body-information when asked—rather like a stock market quotation. It is difficult, however, to conceive of a patient who would be satisfied, or feel himself well served, by a doctor who had such a limited concept of his function.)

The above example demonstrates that the process of valuation of person is so intertwined