SEEING MUCH AND SEEING WISELY

Thomas P. Duffy

Having had the great pleasure of hearing the Intellectual Trajectories of several members of the Koerner Center in the past, I recognize that I am somewhat an outlier in this series. Many former speakers have described a life of the mind spent in the classroom or doing research in their particular fields. In contrast, I have spent my life as a clinician and teacher in the broad fields of internal medicine and hematology. My focus has not been that of the investigative scientist or the research scholar but that of the clinical encounter—the elicitation of the story of my patients' lives and the solution, both diagnostically and therapeutically, of their illnesses. The wards and sickrooms have been my laboratory; the differential diagnosis of illness and disease my hypotheses; the response to intervention proof of these hypotheses. I have spent my career in medicine striving to be successful in fulfillment of Sir William Osler's aphorism for physicians—the value of experience is not only in seeing much but in seeing wisely. This accumulation of knowledge has equipped me with the wherewithal to become a diagnostician, a doctor's doctor—or, as my nurses describe me, Yale's Dr. House without a known drug habit. The medical house staff coined the acronym W2D2 in my honor, shorthand for What Would Duffy Do in a challenging medical matter?

Questions have arisen as to how one becomes an expert diagnostician in medicine. There is the necessary possession of a broad repertoire of clinical scripts of patients' illnesses. These are accumulated from numerous encounters at the bedside under the instruction of a gifted clinician-teacher handing on the craft of medicine. There is also the development of the discipline and cultivation of a lifelong commitment to learning because the knowledge base of medicine advances so rapidly. It is as though one is astride a galloping stallion and keeping up-to-date is the only means of staying in the saddle. There may also be other factors whose possession may advantage some diagnosticians. A while back, a resident-in-training inquired where I had learned how to

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Thomas P. Duffy, Professor Emeritus of Internal Medicine at Yale School of Medicine, is a graduate of Johns Hopkins School of Medicine. After an assistant professorship there, he moved to Yale in 1976 and became a professor of medicine in 1981. He established a national reputation as a diagnostician in internal medicine and hematology, has published over 150 articles and essays, and is a co-editor and coauthor of *Medical Complications during Pregnancy* and *Making Sense: Beauty, Creativity, and Healing.* A founding member of the Ethics Committee at Yale New Haven Hospital, Dr. Duffy serves on the board of the Yale Bioethics Center and several national boards. As director of the Program for Humanities in Medicine at the medical school, he oversaw the establishment of the Yale Medical Symphony and numerous options for students to keep alive their passion for the humanities. His teaching impact has been recognized with numerous awards, and he continues to be engaged in medical resident and fellow teaching. The Hematology Service at Yale was named the Duffy Service in his honor.

solve complicated diagnostic problems. I remember responding to her that one learned how to do it by doing it, somewhat like Aristotle's message that one becomes virtuous by practicing virtuous acts. But I immediately sensed that this was not true, that being a diagnostician required more than simply doing it. I reflected upon what does take place in the doctor-patient encounter—what skills and knowledge are utilized, what wisdom employed to solve the mystery of a patient's illness. It includes the skills and reasoning necessary to solve a puzzle, but it also encompasses a reading of the patient—the story and symptoms that need translation into a disease label. To enlarge upon this point, I would like to present the story of a patient who was a diagnostic dilemma, whose disease assignment had escaped his multiple doctors for several years. I will use his case to elaborate upon some of the elements that contributed to solving the problem. It is of course fitting to proceed in this fashion since all presentations in clinical medicine start with a patient and a case story.

The patient was a sixty-two-year-old English professor who was originally diagnosed a decade earlier at Massachusetts General Hospital with myelodysplasia (MDS), a hematological disorder caused by disarray in maturation of bone marrow elements. His symptoms at that time were mainly weakness and fatigue, which were attributed to his moderate anemia. His condition had remained stable until the last one to two years during which he had experienced very significant weight loss, which was concerning for a possible malignancy. He had undergone several evaluations and numerous X-rays, scans, and laboratory testing without any specific diagnosis other than his myelodysplasia. He sought another opinion at Yale New Haven Hospital and I was asked to see him in consultation; a question was raised as to a possible contribution of his myelodysplasia to his current picture. I reflected upon the entity of MDS and some of the many patients with the condition for whom I had cared. There were elements to his presentation that did not cohere with the typical course of MDS. A decade was a long time for this condition to remain stable and not to have evolved into leukemia or at least to a stage of reduced cell counts that created its own peril. If he had MDS, it wasn't behaving like most cases of the disease. A seed of doubt, of questioning the diagnosis, was appropriate. Sir William Osler (1849–1919) used the phrase "quizzical regard" to describe the stance a physician should assume in all patient encounters. That stance requires not only knowledge of how a disease classically presents but also how it evolves over the course of time, its natural history. Failure of a diagnosis to encompass all the features of a patient's illness, even the absence of certain features—the dog that doesn't bark in the night—calls for consideration of a different diagnosis or a second diagnosis. This is the kind of knowledge that accrues from witnessing the course of many patients' illnesses and developing a large repertoire of clinical scripts that enable a physician to include or exclude a diagnosis of a patient's illness.

My knowledge of clinical medicine had its beginnings and its fascination for me in my education at Johns Hopkins and my subsequent residency years on the Osler Medical Service there. William Osler became my hero, the individual who remains

to this day my ideal for the fashion in which he lived his life in medicine. Osler was an amalgam of his trinocular conception of the physician as clinician, scientist, and humanist; but it was his life as a teacher of medicine in which he truly excelled. I am part of a group of Osler enthusiasts with a dog-eared and underlined two volumes of Harvey Cushing's Pulitzer-winning biography of Osler. He drives my interest in the history of medicine, and I know as much about him and his life as I do about iron deficiency anemia. My credentials and training, my proud lineage, were part of the Oslerian tradition of house staff training. I described my bittersweet year as the chief resident of the Osler Medical Service in a paper entitled "Glory Days, What Price Glory?" The glory was purchased with more than a pound of flesh in exchange for an extraordinary immersion in a vast spectrum of disease. It was truly an opportunity to see more. As a chief resident, my responsibilities included six thirty-bed wards, medical consultations on the surgical and obstetric services, and leadership of an often beleaguered and exhausted house staff. I paid little attention to the cost of this training while in the thick of it, but now, in retrospect and not sleep deprived, I believe the richness it provided me was worth the trade-off in lifestyle.

An important part, perhaps the most important part, of that training was the mentorship and counsel of my chief, Dr. Abner McGehee Harvey, the Sir William Osler Professor of Medicine and long-term author of *The Principles and Practice of Medicine,* an extension of Osler's original textbook of the same title. Our meetings each morning represented a literal handing on of the craft in the oral tradition of medicine. I accompanied him daily on chief's rounds, which were surrounded by an aura that enveloped all of us. The rounds always included the patient whose history was presented by a nervous but well-rehearsed student. Dr. Harvey extended the history taking and performed a physical examination that included a ritual that always brought delight to me. The examining basket reserved for these rounds included a black silk scarf, and it was the task, the honor, of the chief resident to drape the silk scarf over Dr. Harvey's head as he leaned over the patient to perform a fundoscopic examination. After his examination of the patient he proceeded to think through the problem and usually made the correct diagnosis, all without any laboratory data. Dr. Harvey was not flashy in his clinical rounds. He did not create the magic that surrounded Osler's visits in the wards. Dr. Harvey possessed a phlegmatic presence that impressed all with his academic prowess; his patient encounters were restricted to rounds with no ongoing relationships with patients. But any deficit in this area at Hopkins was more than compensated for in the person of Dr. Philip Tumulty, who created his own magic at the bedside with a virtuoso blend of the art and science of medicine. Hopkins received requests for consultations worldwide, and Dr. Tumulty was the individual who cared for such patients. He was, for me as for so many others at Hopkins, the role model upon whom I patterned my life and strove to take care of my patients. Both Harvey and Tumulty taught me how to see much as well as to see wisely. Dr. Tumulty taught me how to become what he titled his wise book, "An Effective Clinician." We saw much

through their eyes. The patients, as Osler had described, were our textbooks of medicine; the institution had a tradition of clinical excellence, and we worked and studied hard to become members of that tradition. We also saw medicine in evolution with amazing advances in a clinical and scientific realm. I witnessed the first successful use of external cardiac massage during my third-year clerkship and worked under Dr. Jim Jude, who helped develop this lifesaving intervention while a surgical resident. Salk and Sabin participated in a quarrelsome debate over the merits of their respective polio vaccines almost concomitant with my spending nights in a ward filled with patients on iron lungs. The cacophony of the machines' sounds guaranteed no sleep. It sounded like I was keeping company with a giant locomotive moving through the room.

I later did a fellowship in hematology at Hopkins. My choice of hematology did not have as its major determinant a passion for blood and diseases of the blood. My year as an Osler chief resident had led me to realize that teaching was my forte and was equal in degree to the pleasure I derived from patient care. But in that era, it was not possible to survive as an academic teacher of general internal medicine. I chose a subspecialty that would allow me to remain a generalist in a subspecialty. I chose hematology not only for the intellectual attraction of its knowledge base but also because it afforded me the opportunity to have ongoing relationships with patients. My chief in hematology, C. Lockard Conley, was a clone of Dr. Harvey in his command of his specialty and the authority with which he dispensed it. A history of discoveries in hematology at that time bore the book title *Blood, Pure and Eloquent.* It was a title that well described the fashion in which Dr. Conley lived his life in hematology and medicine. The emphasis in my training was benign hematology with a later extension into hematological malignancies. My largest experience at Hopkins was working with Sam Charache, who was truly a staunch enabler and advocate for the large sickle cell population for whom we cared. We conducted clinical trials in the unsuccessful treatment of sickle cell disease with cyanate and then with hypertonic urea. I was part of a team that drew initial attention to the entity of heparin-induced thrombocytopenia. The era of molecular hematology had not yet arrived but would soon transform the entire territory, reach, and impact of the specialty.

After my fellowship, I became a junior faculty member in hematology and remained at Hopkins for four more years. I came to Yale in 1976 at the invitation of Sam Thier, who was creating his new Department of Medicine. Dr. Thier was a martinet in style and effect, a modern chief of medicine who was comfortable at the bedside and pitch-perfect in the realm of metabolism and nephrology. He was in the midst of stirring up and galvanizing the department, appointing new and accomplished physician-scientists as his division heads. Dr. Bernie Forget was his choice to head up hematology. Bernie was the ideal selection for hematology chief at Yale, positioned as he was as a leader in the new field of molecular hematology, of globin chain synthesis in thalassemia and the molecular structure of the red blood cell membrane. Bernie had trained as a pathologist and pediatrician. I was brought to Yale to be his clinical

counterpart, which became my major role during my career here. I remain indebted to the two Yale individuals who brought me to Sam Thier's attention: they were Henry Black and Ralph DeFronzo, who had been my residents while we were all at Hopkins. Another of that group as interns was Bernadine Healy, whose extraordinary contributions to medicine as NIH chief, head of the American Red Cross, and outspoken successful advocate for women's health have never been adequately celebrated.

Many individuals continue to ask me why I left Hopkins. They puzzle over my answer that the best thing that happened to me was being accepted to Hopkins medical school and the world I entered there; the second best thing was leaving Hopkins for Yale, with its incomparable richness in so many domains. I was able to grow at Yale as a clinician and even learned gene speak. I worked very hard in a clinical realm. I attended on the wards in hematology and general medicine for six to seven months a year while maintaining a busy outpatient clinic; in retrospect I learned something new every day from my very gifted colleagues, patients, and students. The wards and the classroom were my playground as I enlarged my storehouse of clinical scripts and their scientific basis. I collaborated with Roberto Romero in studying the hematological aspects of eclampsia and edited a book on the medical complications of pregnancy. I became an expert on a very rare disease, systemic mastocytosis, for which I became a resource for consultations throughout the country. I cared for numerous patients with hematological malignancies and learned much from the oncologist Joe Bertino. I was part of the initial clinical reasoning series for the *New England Journal of Medicine* and continued in that role for two years. I was greatly honored in giving five commencement addresses and two white coat ceremony addresses. My patients were a source of great satisfaction and inspiration, and my joy in living the life I was able to live was an encouragement for others to choose the same pathway. I remain surprised and elated in learning what lessons students take away from these encounters at the bedside. One Yale graduate wrote me of one of her most meaningful encounters as a student. She had asked me to accompany her to the bedside of a stuporous patient in order to confirm a questionable physical finding. While she told me the patient's story, I must have noticed that the patient's oral hygiene was terrible—I picked up a wetted gauze and began to clean the patient's mouth. It was that lesson she took away with her. My favorite bioethicist, Leon Kass of the University of Chicago, points out in his paper "Where's the Action?" that it is in the daily encounters with our patients that ethics is most present or absent. It is in our daily encounters with our patients and students that clinical medicine is most alive.

During my career at Yale, Leon Kass also played an important role. When I arrived at Yale, the field of bioethics was still nascent and in need of physician bioethicists. The National Endowment for the Humanities offered summer fellowships to correct that deficiency. I learned the pedagogical basis of bioethics during summers at Williams College with Kass and another summer at Dartmouth with the theologian/philosopher Bill May. I had also had a heavy immersion in philosophy while in college. This

training equipped me to help establish the Bioethics Committee at YNHH and to assume a teaching role in educating medical students and residents in clinical ethics. I joined the board of the Bioethics Consortium and led their end-of life initiative for over a decade. My work in bioethics was immeasurably enriched by my collaboration with a mentee, Lauris Kaldjian, who is now chief of bioethics at the University of Iowa and one of the most eminent thinkers in the field today. My reputation as a benign paternalist in the field had its origin in my paper "Agamemnon's Fate and the Medical Profession," which was a challenge to what I considered an exaggerated worshipping of autonomy in the doctor-patient relationship.

It was against this backdrop that I entered the room of the English professor. His physical presence was striking for dramatic emaciation. He was over six feet tall and could not have weighed more than 120 pounds. He greeted me warmly and invited me to sit alongside him while I proceeded to elicit his history. He described becoming greatly wasted in the preceding eighteen months to two years, with his major complaint being weakness and severe fatigue. He was long married and had a grown daughter. He told of obtaining his M.Phil. in English from Oxford and his subsequent career as a prep school teacher. While listening to his story, I looked around and noted the many books and journals strewn about the room. When I commented upon this, the patient told me that he kept busy writing book reviews for several magazines and journals. I was also taken with another strange awareness that I had somehow wandered into the presence of a monk. I have always found such intrusions important and not to be ignored. Musicologists advise that the secret of music is not in the notes but in the space between the notes. It is while listening quietly that messages are received from patients—not verbalized but silently conveyed. This phenomenon echoes what the poet John Keats described as "negative capability"; and a recent editorial in the *NEJM* spoke of this concept in the context of dealing with uncertainty in medicine. Our usual modus is to ask many questions in an active pursuit of a diagnosis. Keats pointed out that important messages and impressions are sometimes received rather than pursued—they take place when a man is capable of being in uncertainties, mysteries, doubts without any irritable reaching after fact and reason. This requires adoption of a certain angle of repose; there is an efferent as well as an afferent arc in the encounter. The seeming presence of a monk in the room caused me to pursue in more detail his religious and spiritual history. It led me to the discovery that he had departed for Oxford after he had left the Jesuits.

My next questions to the patient highlight a critical aspect of a diagnostician's skills. It is one's frame of reference, one's breadth not only in science or even in medicine. It is the knowledge that exists in the humanities. Yale provided me with the opportunity to frolic in this realm in my role as director of the Program for Humanities in Medicine for a decade and a half. I inherited the program from its founder, Howard Spiro, who wisely counseled his students that even in this modern era, physicians must remain alert to the "still sad music of humanity." I continued the program's lecture

series on topics that represented an intersection of medicine and the humanities. But I also quickly recognized that medical students possessed remarkable talents and interests that often diminished under the demands of medical education and learning a new vocabulary of 35,000 medical terms. The program addressed this concern and provided opportunities for students to keep their creative energies alive through creative writing; poetry and medicine; live-model art sessions; photography and film; theater; dance and choreography; and, with the energy and talent of Lynn Tanoue, a 100-member medical symphony. All of this in the mission of my strong belief that the richness of the clinical encounter is strictly dependent upon the richness one brings to the encounter. The program profited not only our students but the whole community, and I was probably the individual who profited most from the whirl of humanities. I also became a fellow of the Whitney Humanities Center and learned from the extraordinary scholars that populate Yale.

But my broad frame of reference had another source, which was particularly important in the present case. Before going to medical school, I had received eight years of Jesuit training and am living proof of a variation on the Jesuit adage — give me your sons for the first seven years and they are ours as men. The principles for leading a good and moral life that I learned from all of these sources constituted the basis for living a moral life in medicine: to respect the dignity of all human beings and to live a life of service to others.

My exposure to the Jesuits equipped me further in the solution to my patient's case and I believe to my skills as a diagnostician. Experts such as Umberto Eco have pointed out that diagnosis is a form of semiotics, of translation, of translating the signs and symptoms of the patient into the language of medicine. I had studied Greek for three years and Latin for four years. I sang my memorized lines of Homer's *Odyssey* to the tune of the "Stars and Stripes Forever" and had recited the Gettysburg Address in my Latin translation. The attic of my mind was originally filled with Latin and Greek words that have since been replaced by my vocabulary of medicine. And the schooling in translation advantaged me as a diagnostician. I think it important to note that Osler and Arthur Conan Doyle of Sherlock Holmes fame shared this same exposure to ancient language as young men. But my Jesuit exposure was especially important in this case. I knew of the spiritual exercises that are part of Jesuit daily practice. I asked my patient the question, You describe yourself as having left the Jesuits, but did you ever really leave the Jesuits? Had he continued his spiritual exercises over the ensuing thirty years since he left the Jesuits? He admitted that he had continued to do so, and my Eureka moment occurred at that time. I understood what it was that was causing his weight loss. It was not uncommon in past times that individuals would starve themselves in the quest of salvation: it was a form of transformative suffering, the quid pro quo for rapid ascent into heaven. I was aware of a condition called "Holy Anorexia," where individuals starve themselves in the misbegotten quest of salvation. It is well described in the lives of medieval saints, but a form of holy anorexia claimed the life of the brilliant French philosopher Simone Weil in modern times.

One might, perhaps one should, hesitate to invoke such a diagnosis that had eluded others for almost a decade. Whenever one entertains a diagnosis, one must examine it for the principles of adherence and comprehensiveness. Does the diagnosis explain all the features of the patient's illness, and does the classic description of the illness contain all the features of the patient's presentation? Has one prematurely leapt to a diagnosis, the so-called trigger phenomenon error? How did my diagnosis explain the hematological abnormalities? He carried a diagnosis of MDS for ten years. My experience with the hematological aspects of anorexia nervosa resolved that question since 10 to 20 percent of young women with anorexia nervosa have hematological manifestations similar to MDS. I also knew that there was a means to prove that my hypothesis was correct. The marrow of patients suffering with protein-calorie malnutrition often contains an accumulation of a mucopolysaccharide substance, ceroid or lipofuscin, recognized as gelatinous deterioration of the marrow. The patient's medical team was not convinced that this was the correct diagnosis and rather than doing a marrow biopsy, performed a liver biopsy because he had some liver function abnormalities. The liver biopsy was replete with the same ceroid material, thereby confirming the presence of advanced protein-calorie malnutrition. The case had a happy ending. With the aid of intensive psychiatric and behavioral therapy, the patient was able to gain significant amounts of weight. It is of course our hope that he can find salvation in the future without needing to starve himself to death.

My description of this patient encounter must leave you somewhat puzzled. I would not necessarily recommend eight years of Jesuit education, but I would recommend rigorous training with a broad exposure to clinical medicine under the guidance of an accomplished clinician. There is another quality that skilled diagnosticians should possess. It is that of curiosity and wonder, which the Nobel Prize-winner Alice Munro considers the greatest source of happiness in life. Curiosity and a sense of wonder provide entrée into the story of patients' lives, which is a necessary antecedent in eliciting empathy for those lives. Imagining oneself in another's shoes often is a trip to one's imagination to ask questions that would otherwise go unasked. I believe there are individuals who are more gifted in this regard, more advantaged in their ability to read the patient. Such gifted clinicians with heightened mindfulness of this sort would have an advantage in reading emotions, observing the minor detail that escapes others. It facilitates entering the flow of another person's life. It is somewhat like what birders call the "jizz" – the gestalt of the body shape, flight style, song or call, context, behavior, and location within a landscape that allows an experienced birder to make a swift and correct identification. The jizz is the bird glimpsed at the edge of vision. It is an ability that depends upon use of binoculars to bring the bird into focus, but it is so much more. It is what the birder brings to the binoculars that allows him to see and recognize that which is being seen through the binoculars. It is what a seasoned clinician brings to the bedside in witnessing his or her patients.

Osler was not a birder, nor am I. But I believe he had this gift of the "jizz" in medicine. And it was the employment of this gift and all it entailed that provided him his

major achievement and fulfillment in medicine. His amalgam of praxis, litterae, and scientiae was crowned by doctrina, a teacher of medicine. His intellect was in the clinic and by the bedside, but his heart was in the company of his students. And it was in witnessing his person and his life and behavior as a physician that his students were inspired to emulate him. I mean not to equate myself with my hero, but in closing I want to share with you some of the impact that a life as a teacher in medicine, in handing on the torch, may have. One is from long ago in my career, one is more recent.

> You cannot imagine how many times I look back at a case and wonder if I would have gotten the diagnosis and treatment so well worked out if I had not felt you somewhere in my subconscious…that comes from those late-night residency rounds with you.
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> Hardly a day goes by in my life without something you have taught me deeply affecting how I think and act. I have kept a list of the most important pearls you have taught me—most of them about clinical matters, of course, but some pertaining to patient care and interpersonal dialogue in my daily interactions with patients, families, and colleagues. It is that which I practice every day and that I impart to my students. This represents why you will never have anything truly valedictory.