

**SALVATORE MANGIONE, MD**

Associate Professor of Medicine, Director Physical Diagnosis Curriculum, and Associate Director, Internal Medicine Residency, Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA

# The stethoscope as metaphor

*“Those who advise that all stethoscopes should be ‘scrapped’ may be influenced by the fact that they do not know how to use their own.”*

*From Pulmonary Tuberculosis, 1921, by Sir James Kingston Fowler (1852-1934) of the Brompton Hospital, England*

The commentary by Clark et al in this issue<sup>1</sup> is a timely reminder of an important problem in modern medicine: the demise of the bedside. My only divergence from the authors is in their conclusion, since my Mediterranean pessimism leads me to believe that theirs is just a gallant attempt at rearguard action for a battle that, unfortunately, has long been lost.

More than half a century ago, Paul Wood warned us against the “danger of losing our clinical heritage and pinning too much faith in figures thrown out by machines,” thundering that “medicine must suffer if this tendency is not checked.”<sup>2</sup> Well, that tendency was not checked, and medicine (and our wallets) have indeed suffered.

---

*See related commentary, page 536*

---

Still, technology is not the enemy. The misuse of technology is the problem.

Like Dr. Clark and his colleagues, I’ve seen many cases in which technology unguided by bedside skills took physicians down a path where tests begot tests and where, at the end, there was usually a surgeon, and often a lawyer. Sometimes even an undertaker. The deaths of Jonathan Larson (writer-composer of the musical *Rent*) and of his namesake, actor Jonathan (John) Ritter—who both succumbed to undiagnosed aortic dissection—make me wonder whether their pulses were ever checked.

Editorials have lamented the “hyposkillia” of our times,<sup>3</sup> and the usual suspects have been already rounded up: our overreliance on tests, our ever-increasing fascination with

the machine (what Erich Fromm called the necrophilia of our times),<sup>4</sup> the loss of bedside teaching, and lastly, the lure of compensation. But one important player has so far gone unnoticed, despite being probably the major offender. In fact, it may even be responsible for the other disturbing trend in modern medicine: the loss of empathy.<sup>5</sup>

I’m referring to the disappearance of the humanities in both the undergraduate and the graduate curriculum. This is actually new. If we look, for example, at the great bedside diagnosticians of the past, we find that they were passionately interested in everything human. Most, if not all, were indeed humanists—lovers of the arts and literature, travelers and historians, poets and painters, curious of any field that could enrich the human spirit. Charcot, who single-handedly invented neurology, was not only a superb scientist, but also a talented artist who drew and painted (skills he considered fundamental for bedside observation) plus a bona-fide Beethoven fanatic who spent Thursday evenings on music, strictly forbidding any medical talk. Laënnec himself was a poet and musician who modeled his stethoscope after the flutes he made. And Charles Bell (of Bell palsy, phenomenon, and law) was a well-respected painter who soldiered with Wellington and left us incredible sketches of the Waterloo wounded and maimed. Even Osler, the pinnacle of 19th century humanistic medicine, believed so strongly in the value of a liberal education as to provide students with a list of 10 books (ranging from Plutarch and Montaigne to Marcus Aurelius and Shakespeare) to read for half an hour before going to sleep. Addressing the Classical Association just before his death, he lamented the “grievous damage” that had been done by regarding the humanities and science in any other light than complementary, while in reality they are “twin berries on one stem.”<sup>6</sup>

**Technology is not the enemy; the misuse of technology is the problem**

doi:10.3949/cjfm.79a.12075

Until the 1870s, medicine was in fact a spin-off of the humanities. A solid humanistic education was deemed essential for admission to medical school. Then the German victory in the Franco-Prussian War shifted the axis from Paris to Berlin, and medicine went the German way. Never as touchy-feely as the French, and definitely more comfortable in the laboratory than at the bedside, the Germans produced giants like Koch, Virchow, and Roentgen, who gradually moved medicine away from the bedside and into the lab. In fact, medicine even adopted the uniform of the laboratory—the infamous white coat now banned by the British National Health system as a dirty carrier of bacteria.

Finding herself at a crossroads, America went the German way, mostly because of Flexner (himself the son of German immigrants), whose 1910 report totally changed the face of medical education. The “two cultures” were born—science was “in” and the humanities “out.”<sup>7</sup>

The result is what Lewis Thomas called the “baleful and malign” influence of the modern medical school on liberal-arts education.<sup>8</sup> Michael Crichton put it even more bluntly. Explaining why he dropped out of medicine, he wrote, “My classmates [at Harvard] tended to think that literature, music, and art were irrelevant distractions. They held these “cultural” matters in the same intellectual contempt that a physicist holds astrology. Everything outside medicine was just a waste of time.”<sup>9</sup>

And since then, things have only worsened.<sup>10</sup>

Yet the link between humanities and the bedside remains crucial. I have had the privilege of meeting most of the clinicians who still contribute to physical diagnosis, and they are almost all humanists.

So why should the humanities nurture the bedside? For one, they may increase our tolerance of ambiguity, a trait sorely lacking in modern medicine. This makes sense, since decoding feeble sounds emanating from chests, palpating indistinct organs, and detecting bedside nuances are all painful reminders of the ambiguous in our craft, not to mention in life. And if unprepared by a humanistic education to deal with the uncertain, students may easily opt for the “certainties” of the laboratory or radiology suite.<sup>11</sup> Once again, Osler comes to our rescue.

“A distressing feature in the life which you are about to enter” he told the graduating class of the University of Pennsylvania in 1889, “is the uncertainty which pertains not alone to our science and arts but to the very hopes and fears which make us men. In seeking absolute truth we aim at the unattainable, and must be content with finding broken portions.”<sup>12</sup>

The stethoscope is too closely bound with the doctor’s image not to be a metaphor for something larger. To me, it’s a metaphor for medicine as both an art and a science, wherein the humanities are—and of right ought to be—a fundamental part of the education. Hence, if we want to rekindle the bedside, we must rekindle the humanities. After all, this is what both Lewis Thomas<sup>8</sup> and Sherwin Nuland<sup>13</sup> have urged us to do. My hunch is that this would need to be done sooner rather than later, because if it is possible to make a scientist out of a humanist (it was done for centuries), it might be considerably harder to make a humanist out of a scientist. The experience of the past few decades seems to support this conclusion.

The alternative is a future full of tricorders and technicians, but sorely lacking in healers. ■

It may be considerably harder to make a humanist out of a scientist

### REFERENCES

1. Clark D, Ahmed MI, Dell’Italia LJ, Fan P, McGiffin DC. An argument for retrieving the disappearing skill of cardiac auscultation. *Cleve Clin J Med* 2012; 79:536–544.
2. Wood PH. *Diseases of the Heart and Circulation*. London: Eyre and Spottiswoode; 1950.
3. Fred HL. Hyposkillia: deficiency of clinical skills. *Tex Heart Inst J* 2005; 32:255–257.
4. Fromm E. *To Have or To Be?* New York, NY: Harper & Row; 1976.
5. Hojat M, Mangione S, Nasca TJ, Gonnella JS, Magee M. Empathy scores in medical school and ratings of empathic behavior in residency training 3 years later. *J Soc Psychol* 2005; 145:663–672.
6. Osler W. The old humanities and the new science: The presidential address delivered before the Classical Association at Oxford, May, 1919. *Br Med J* 1919; 2:1–7.
7. Snow CP. *The Two Cultures and the Scientific Revolution*. London, England: Cambridge University Press; 1959.
8. Thomas L. Notes of a biology-watcher. How to fix the premedical curriculum. *N Engl J Med* 1978; 298:1180–1181.
9. Crichton M. *Travels*. New York, NY: Alfred A. Knopf, Inc.; 1988:69.
10. Gunderman RB, Kanter SL. Perspective: “How to fix the premedical curriculum” revisited. *Acad Med* 2008; 83:1158–1161.
11. Nevalainen M, Kuikka L, Sjoberg L, Eriksson J, Pitkala K. Tolerance of uncertainty and fears of making mistakes among fifth-year medical students. *Fam Med* 2012; 44:240–246.
12. Osler W. *Aequanimitas*, with other addresses to medical students, nurses, and practitioners of medicine. May 1, 1889. [www.medicalarchives.jhmi.edu/osler/aequessay.htm](http://www.medicalarchives.jhmi.edu/osler/aequessay.htm). Accessed June 26, 2012.
13. Nuland SB. *Where is Wisdom? Restraint in a Time of Biomedical Miracles*. The Great Lectures Library. Chautauqua Institution; 2006.

ADDRESS: Salvatore Mangione, MD, Department of Medicine and Clinical Skills Center, Thomas Jefferson University, 1001 Locust Street, Suite 309C, Philadelphia, PA 19096; e-mail Salvatore.Mangione@jefferson.edu.