

*A power I have, but of what strength
and nature I am not yet instructed.*

— William Shakespeare,
Measure for Measure,
Act 1, Scene 1

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Observation is at the very heart of medical practice. Is it a skill learned in medical school, or is it inherent? I once heard someone say that when a baby repeatedly drops a bottle on the floor and watches a parent pick it up repeatedly, the baby is really observing physics and psychology, noting gravity and human behavior. The baby's actions favor innate curiosity and the ability to observe.

In my early teens, when I first read the Sherlock Holmes stories, I was already driven to pursue a career in medicine. That Conan Doyle patterned Holmes after his mentor, Dr. Joe Bell, was well known.¹ The emphasis on observation and deduction in the canon of 60 stories projected what a doctor does in practice.² I tried to emulate it every day. Sometimes I would write about such experiences.

A few years ago, I was searching through my files for an unrelated document when I came upon an old and faded typewritten page. It described something that I had experienced as a junior medical student rotating in outpatient pediatrics at Rush Presbyterian St. Luke's Hospital in Chicago during the winter of 1962–63.

The clinic was on the second floor of an old brick building that I believe was the original Rush Hospital. Parents brought their children to register on the first floor, and then to the waiting room on the second floor. As students, we were assigned to one examining room and were supervised by a pediatric resident or attending. Here's what I had written:

With her mouth open and her eyes wide with surprise, the young mother listened as I said to her, "You came to the hospital by bus from the South Side of Chicago and were dropped off about one or two blocks from the hospital. You walked here carrying the child in your right arm. You signed in downstairs without waiting, sat down outside the clinic, and almost immediately were called in to have your child examined."

The mother gasped, "Doctor, you were following me!"
I responded, "I'm afraid not."

My guess in hindsight is that the mother, at that point, would have taken any recommendation I made as gospel. In her mind, I was a magician, a real wizard. How could I have known what had happened if I had not followed her? I suppose I could speak as Sherlock Holmes and say that "... the train of thoughts ran so swiftly through my mind that I arrived at the conclusion without being conscious of intermediate steps. There were such steps, however."³

Here was a black mother with her child, who was obviously ill. The child had a runny nose, was sneezing and coughing, and was crying with pain. Perhaps she had an earache, because she kept pulling on her right ear. Most black families lived on the South Side of Chicago and did not have automobiles. So the mother either got a ride or took a bus. I noted when I called the baby's name that her snowsuit was covered with unmelted snow that was mostly on the left side of the snowsuit, suggesting a number of conclusions. The mother must have walked

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far enough—one or two blocks—to get that much fallen snow on their clothes. Therefore, she hadn't been dropped off at the door to the building. It happens that one or two blocks is the distance to the hospital from the South Side bus stops. I knew, because I myself was from the South Side. Most of the snow was on the left side of the baby's snowsuit and only the left side of the baby's face was reddened from wind exposure. These observations indicated that the mother had held the baby in her right arm. If there had been a wait during registration or in the clinic waiting room, the snow on their clothes would already have melted. But it hadn't. I had also noted that the mother had just begun to unbutton the snowsuit when I called them in to be seen.

I tell my students that the physician must always be in “observation mode,” as one never knows from what direction clues are going to come. You don't use observation only when you put on your white coat. Observation is not like a light switch that you can turn on and off; you must always have the switch on. The following story illustrates this point.

Attending a medical conference with many other cardiologists, I sat at a round table with some old friends. Dr. B was in excellent health; on the other hand, Dr. S was obviously diabetic, because he periodically checked his blood sugar during the meeting. After lunch, Dr. S did not return to the meeting, and we assumed that he'd gone home. Later, however, the woman conducting the meeting came to our table to tell Dr. B and me that our friend was ill and that the paramedics were assisting him.

We immediately went to be with Dr. S and noticed that he was sitting in a wheelchair in the hallway. The paramedics had found a blood sugar level of 50 mg/dL and were giving him orange juice. He was already feeling better and more alert. From old habits cultivated while working in emergency departments over the years, I took in the whole image before me and noticed that the curve of a thin tube was evident beneath Dr. S's sweater. I asked him if he had an insulin pump. He said that he did. I asked if anyone had turned it off. No one had. So we did. He soon returned to normal. Dr. B and I made sure that he got home safely and checked with his primary care doctor.

Holmes emphasized looking, seeing, observing, and reasoning. He also told Watson to learn to reason backwards. Reasoning that Dr. S was hypoglycemic because of his symptoms and concomitant blood sugar level was easy. Reasoning backwards, however, led to the ques-

tion “Why is he hypoglycemic?” Perhaps he's getting too much insulin. Ah, what's that beneath his sweater?

Among the inherent resources we bring to medical school are curiosity, imagination, and an ability to observe. Good mentors help us hone those skills as we become competent clinicians. Concepts in medical science change over time, whereas curiosity, imagination, and observation are the bedrock of medical practice and improve with experience. It all starts at birth.

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Editorial Commentary

An ever-increasing reliance on medical technology now dominates patient care. As a result, clinical skills have plummeted.^{1,2} Yet the preceding article takes us back to a time when clinical skills were paramount. Even then, the author's deductive talents were exceptional, particularly those that he displayed as a medical student. Moreover, they support his belief—and mine—that the ability to observe is an innate gift that all of us have but don't always grasp, cultivate, or use.

So thank you, Dr. Grais, for sharing your experiences with us and for fanning the embers of a powerful diagnostic tool—the art of observation.

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