The Sculptor’s Compass — A Diagnostic Paradigm
Darshan Thota, MD FAWM
Naval Medical Center San Diego

As a new resident in the emergency department, I am starting to learn that serious and life-threatening conditions require rapid identification and intervention. Response time is often lengthened due to ancillary services, existing policies, overcrowding and cost of care. The most efficient emergency medicine (EM) physicians have a mental model or road map to guide them through the uncertainty of pathology. I call my EM diagnostic paradigm the Sculptor’s Compass.

My mental model frames medicine as a sea of uncertainty where physicians are captains sailing through stormy conditions of disease and pain trying to avoid hitting the icebergs of death and suffering. In sailing, we reach for a compass to help aid in navigation. In this model, my schema for how to approach the undifferentiated patient is my compass.

In my short time within this fast paced, quick thinking and amazingly fun field, I noticed that our paradigm in the ED is completely different than the rest of the hospital. For example, a friend who is a urology resident asked me to explain how ED personnel approach patient care. This resident couldn’t follow the thought process of consultations from the ED. I initially tried to use a metaphor of playing with a box of Legos. I said that the diagnostic process in the emergency department is a lot like assembling a structure using Lego pieces. You take data points and put them together to see which pieces fit correctly in order to build a stable structure. That logical structure will hopefully form some foundation for a reasonable diagnosis.

While explaining the Lego metaphor, it occurred to me that our specialty views patients and disease radically different from the rest of medical staff in the hospital. Other fields in the hospital want to know what comprises a disease or injury. In medical school we’re taught how to use signs, symptoms, clinical gestalt and test results to come up with a differential and ultimately determine the diagnosis. What is the diagnosis? What is the treatment? This process produces a very straightforward and provides a logical approach to sailing the seas of medical uncertainty.

In contrast, our specialty must often focus on what is NOT present. For example, if someone has severe chest pain and we can’t definitively rule out acute MI, pulmonary embolism, pneumothorax, dissection or Boerhaave’s, then we need to think hard about admission for further observation. This process is less like adding blocks to come to a pyramid of diagnosis and more like sculpting. It’s the idea of negative space: taking a block of marble and cutting away everything that something is not, until you are left with something that is. You care what something is not, start cutting away and see the sculpture emerge trying to ensure no serious or life threatening event occurs.

Cutting away at the unknown to gain a diagnosis by ruling out possibilities is the daily work of an emergency physician. A staff member told me that a good trick to help patients feel less overwhelmed when a diagnosis takes a long time is to smile at the patient and say “You know, often times in the ED, we’re better at telling you what you don’t have, rather than what you do have.” This schema for approaching the undifferentiated patient is condensed into the metaphor of a Sculptor’s Compass.

When I explained this Sculptor’s Compass approach to EM, my friend the urology resident said “That makes so much sense now, you guys aren’t total morons, it’s how you think about things!” Mission accomplished! It was my first successful communication with a colleague from another specialty about the EM approach to medicine.

I believe that not only understanding EM, but explaining our mindset to some of our colleges using the Sculptor’s Compass paradigm will facilitate cross disciplinary understanding and lead to better patient outcomes. Personally, the compass paradigm is one the most useful mental tools I have at my disposal. It provides a framework to approach EM and helps to navigate the seas of medical uncertainty.

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