

## 'Anchoring' Can Bias Clinical Judgment

Julian L. Seifter, MD | February 09, 2015

I recently was rounding as a subspecialist on a medical service with a hospitalist. An overweight young woman, who was otherwise healthy, had been flown in from Maine with severe, painful ulcerations on her legs. She had been treated with antibiotics for what was presumed to be an infection, and two punch biopsies were reported to be nondiagnostic.

The hospitalist had seen the patient previously with the house staff, and he was focused on the fact that she had not responded to antibiotics. "This is pyoderma gangrenosum," he declared with absolute conviction, ordering that antibiotics be stopped and corticosteroids started. I remembered that, a year earlier, this same physician and I had reviewed a case of pyoderma gangrenosum together. My impression of this case was different from that one, but I was hesitant to share my thoughts during rounds, given the strong opinion he had just expressed.

Later, I took the residents aside and explained that I thought there was a differential diagnosis here; the painful ulcerations appeared to me to be typical of calciphylaxis which, as a nephrologist, I had only seen in the context of kidney disease. In the interest of academic inquiry, I thought we should get another skin biopsy.



**Julian L. Seifter, MD**

The tendency to frame a clinical problem around the first piece of information we receive is common in medicine. It relates to the much-discussed concept called "anchoring," a cognitive predisposition that explains our willingness to accept a patient's initial diagnosis made in the emergency room without further thought.

Anchoring is not the only bias that is built into our brains; we're also equipped with the availability bias (retrieving easily recalled examples), confirmation bias (seeking evidence that supports your first impression), and egocentric bias (sticking to your own idea precisely because it's your own idea), to name a few. Although these cognitive shortcuts can be efficient tools in decision-making, they often lead to error.

Whether you look at the patient's history (the hospitalist's focus on antibiotic failure) or at the symptoms (my own subspecialist focus on the painful eschar, suggesting a vasculitis that cut off blood supply), the diagnostic guess becomes an association based on prior experience.

### The Power of First Impressions

Our first clinical encounters can have surprisingly long-lasting effects. During a general surgery rotation as a student, I admitted a 20-year-old man with severe left-lower quadrant pain, an acute abdomen requiring abdominal exploration. The finding was acute appendicitis; he had situs inversus. Is it fair that my first experience with appendicitis occurred in a patient with a left-sided appendix?

In another student encounter, I followed a young man who was healthy except for having gout. Unfortunately, he died in the medical intensive care unit from Stevens-Johnson syndrome caused by allopurinol. To this day, I worry whenever I treat a patient with that drug, and if there is an alternative course of action, I will always take it.

Early experiences burn themselves into our minds, and those memories often pop up when a new case presents itself. In the case of the young woman from Maine, the attending's decisive diagnosis was clearly associated with that earlier case. I experienced a similar process of association with prior cases I'd seen involving uremic patients with ulcerations, which led me to consider a different diagnosis.

Beyond the ease of retrieval, there's a sense of reward and confidence in going with your first instinct. In addition, there is always a temptation to reach an absolute conclusion, an undeniable thrill in the "aha" moment, as well as a profound

satisfaction in unambiguous belief. Then, after we come up with a clever diagnosis that ties together a complex of symptoms, we may be very reluctant to retreat from that diagnosis, even when the negative tests start rolling in. A negative anti-neutrophil cytoplasmic antibody (ANCA) test might prompt the comment, "So, this is ANCA-negative vasculitis," or "It's seronegative lupus erythematosus ." We might need to get many negative tests before we can be convinced that our brilliant diagnosis was wrong.

### **I Know I'm Right**

Another problem with anchoring involves the inhibition of discussion that occurs when someone aggressively asserts an opinion. The hierarchical nature of medicine often interferes with open-minded inquiry, but it doesn't necessarily depend on the pecking order. Foreclosure of discussion can result simply from the absolutism with which an opinion is expressed.

When I was a medical resident, I remember a student on our team who saw a complicated case and pronounced with absolute surety, "Histoplasmosis." And... he was right. I thought he was a genius until a fellow resident explained, "He's said that about every patient in the past month." Finally, the right patient came along.

Another time—at the beginning of my first stint as an attending, feeling a bit intimidated by the brilliant house staff—we were considering a patient with unexplained fever. I looked at the temperature chart and asked if the team had considered a drug fever. The senior resident proclaimed, "You *never* see a drug fever without a rash." I considered whether to stand my ground and finally replied, "That hasn't been my experience; who told you that?" He shot back, "A dermatologist told me."

"Well," I said, "one thing's certain: A dermatologist doesn't see a drug fever without a rash."

### **Reining in Our Biases**

Uncertainty can be anathema to clinicians. How much do we reflexively defend against doubt with anchoring, mental shortcuts, and unwavering conviction? One thing we can control, starting now, is our self-awareness. Some good correctives, both to external pressures to rush toward discharge, and the mind's tendency to cling to an association or a received idea, include being aware of one's own biases, letting go of fixed ideas, and keeping an open mind. We need to be conscious of the bias of experience and the benefits of experience; of the complexity of medical problems and—the real kicker—the difficulty of assigning cause.

I'll have more to say on that next time.

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Cite this article: 'Anchoring' Can Bias Clinical Judgment. *Medscape*. Feb 09, 2015.