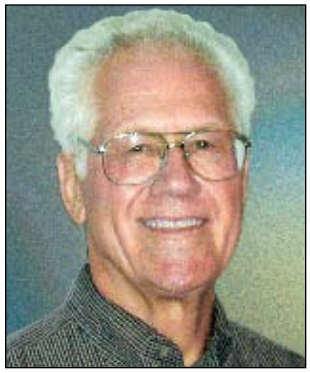
Lyle's Law of Certitude

WE WERE HAVING A DISCUSSION about a strategic decision that would have a significant effect on our organization and on some of our personnel. One of the participants held some very strong views, but the decision had pretty much been made and it was not in line with what he wanted. Nonetheless, he was quite adamant—and vocally so—that his way was the right way. At length, someone asked him, "Have you ever considered the possibility that you might be wrong?" His answer: "No, absolutely not." From then on, I essentially discounted his opinion and honored more the position of the people who had, indeed, considered that they might be wrong, looked for more evidence, reconsidered the question, and still returned to their original decision.



From this experience—and others like it—arose Lyle's Law of Certitude: **The more certain you are that you are correct, the more imperative it is to consider that you might be wrong.** This is tough advice to take, because it goes completely against human nature. When I really have confidence in my conclusion, shouldn't I stop looking for countervailing evidence and devote my energy to defending my position? Certainly every instinct would drive me in that direction. But certainty can be blinding, and proceeding blindly is not good whether you are driving an automobile or deriving a strategy for a company.

As I consider the application of this law to engineering, I find that it seems to be pretty well observed in the mainstream of our profession. Engineers are in general a cautious lot, and most decisions are weighed carefully and repeatedly. At the level of what might be called *ancillary* considerations, however, there might be a need. For instance, have you ever heard anyone say something like, "I'm 100 percent confident that this …" or "… won't pose an environmental problem" or "… is completely safe" or "… is unsinkable"? When people are that certain they are correct, it is really imperative to consider that they might be wrong. An iceberg? Who knew?

In our private lives, a good place to start applying the Law of Certitude is to our prejudices. We all have them. The only way we can support a prejudice is to be absolutely certain that all, all of *those people*—be they a racial or ethnic group, the faithful of a particular religion, members of the yacht club, or supporters of a particular political party—are all stupid or dishonest or venal or dirty or lazy or greedy or what have you. Applying the Law of Certitude and exploring the possibility that you might be wrong about that will inevitably show that you are. The resultant counterexamples will destroy the generalization upon which the prejudice was based. Sorry about that.

While prejudices are generally considered to be bad, moral positions are usually thought to be good. Unless, of course, your moral position conflicts with my moral position. The issues that are so polarizing in American society today—abortion, gay rights, the death penalty, gambling, etc.—are generally defined by strongly held moral positions. We would probably all benefit, individually and as a society if all who are really, really sure they are correct would consider the possibility that they might be wrong. Even if minds were not changed, the exercise would undoubtedly produce some empathy and understanding that does not currently exist.

Perhaps the most important message to be garnered from the Law of Certitude is a counsel toward humility. Certitude carried to extreme is hubris, a condition characterized by arrogance and self-adulation. Not very helpful—or admirable—characteristics.

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My etymological perambulations in pursuit of a more thorough understanding of the word *hubris* resulted in an interesting circular set of definitions. Under the entry on hubris, Wikipedia suggests that the reader also see *victory disease*, which I had not heard of before. This is essentially military hubris where an army, having won one or a few great battles, becomes overconfident and arrogant. Examples cited are Napoleon at Moscow and the Japanese military in the early months of World War II. This arrogance and overconfidence leads then to complacency, which ultimately leads to defeat. In turn, it strikes me that complacency is one source of the certitude that keeps us from examining our strongly held

conclusions. What, me worry?

Thus, certitude leads to hubris, which leads to overconfidence, which leads to arrogance, which leads to complacency, which leads to certitude. It is a circle that needs to be broken.

This law, like any, can be misused. It should not be invoked to justify waffling or inaction. Engineers cannot afford the luxury—if that's what it is—of continuing to say, "But on the other hand…" because our goal is to do the right thing at the right time, and that means we can't delay a decision indefinitely.

I also considered saying that the law should not be used to question continually decisions that are already made and in the process of implementation. It seems that once the train has left the station, the wise course is to pour on the coal and head down the track. I conclude, however, that this might not be so smart. The more certain I am that the track is clear ahead, the more imperative it is that I check to see if any bridges are out. I may have to stop the train, but that's better than the alternative.

As I write this column, the events in Iraq continue to unfold, page by bloody page. The reader could be forgiven for thinking that this law was written as a result of that situation, but such is not the case. The Law of Certitude has been on my list of future laws for quite some time, and it is being written now because it just happened to float to the top. At this time, I don't think it would be helpful to use the law to excoriate anyone for decisions made in the past. I do, however, hope that our leaders will be assiduous in applying it as they determine our course for the future.

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