



# Lyle's Law of Gentleness

Deans have many duties, and most of them are quite pleasant. There are degrees and awards to be handed out, new students and their parents to be greeted, promotions to be acknowledged, and anniversaries and other occasions to be celebrated. The dean is also the public presence of the school or college and is thus involved in all kinds of social activities and operations at the interfaces between the academy and industry or government. There are challenges, to be sure, but in general these duties are both pleasant and rewarding.

While I don't want to sound like an economist, I must now say, "On the other hand...." Yes, on the other hand, there are a few duties that are, shall we say, less than pleasant. Occasionally—rarely, one hopes—the dean must recommend against tenure or reappointment. Not a happy task. Deans never have enough money, so they have to deny some very legitimate requests to fund activities that would be very desirable. And, of course, there are the cases of student discipline and disgruntled students and parents.

The fortunate dean has one or more good associate deans who stand between the dean and the disgruntled. I was certainly blessed in this regard. Eventually, however, some cases escalate to the point where the associate dean—with a sigh of relief, I am sure—has no choice but to deliver the case to the doorstep of the dean.

One such case arrived in my office two or three days before commencement. A senior who had a very good academic record had arranged to do an independent study during his last semester and had failed to meet the expectations of his professor. The associate dean had negotiated the grade from failing to incomplete but this still left the student unable to participate in graduation. Disgruntlement abounded. The parents—alternating between tears and fury—were in my office. I reasoned, cajoled, attempted to mollify. No luck. So I decided to try taking off the kid gloves and get tough. I don't remember my exact words but, clearly, they were not well-chosen. The father offered to knock my block off. Sensing that this would not be a desirable outcome for either of us, I returned to the mollify strategy. Well, the student did not walk across the stage but did graduate eventually. The father and I, who did not know each other before, ended up having an amicable relationship. And I learned—actually

relearned—a valuable lesson, summed up in Lyle's Law of Gentleness; *It is safer to err on the gentler side.*

The reader may recognize this as a synthesis of two legal maxims: *Tutius erratur ex parte mittioro*. It is safer to err on the side of mercy. And *In dubio pars melior est sequenda*. In doubt, the gentler course is to be followed. I prefer gentleness to mercy. Mercy is something that is granted

to someone who may or may not "deserve" it, and there is an implied difference in status of the grantor and the grantee. Gentleness, on the other hand, suggests a trait that is well-advised no matter what the relative status of the protagonists might be.

There is considerable room for gentleness in our practice of engineering. Few will argue, for instance, that the products of our profession have always been gentle with the environment. As we begin to understand the effects that we have engendered and to recognize that the Earth is deteriorating at a rate somewhat faster than we had thought, we need to make sure that our practices change as well. There is lingering—though weakening—debate about the cause and progress of global warming and its potential impact on weather, crops, and the level of the sea. (I am particularly interested in the level of the sea because our house is located about six feet above mean high water.)

To my knowledge, however, there is no debate about the increase of greenhouse gasses and not much about their origins. We have helped to engineer our way into this mess and, if we strive to err on the gentler side with the Earth, we can engineer our way at least part way out.

Engineers also need to be gentle with people. The change in safety standards over the past 20 years has been remarkable, and virtually all of our products are far safer than we would have thought possible. Most of this has been due to external regulation, and engineers run the risk of leaning on regulations to make sure our products are safe. But our design decisions can't be solely determined by what we are *required* to do. As engineers, we know that we will not hit the design target dead on, so when we err—as we will—we need to err on the gentler side. The side of safety.

Of course, it is in our interpersonal relationships that the Law of Gentleness finds its most ready application. We interact in both word and deed with family, friends, colleagues, and a host of people with whom we come in contact



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for a brief time and may never see again. Ironically, we are often least considerate of the people with whom we are most intimately connected (although tales of road rage provide dramatic counter examples). With everyone, we are continually making decisions of what to say, what to do, or what to require or allow others to do. These decisions are often made rapidly—even hastily—when a little reflection might have produced a different outcome. Better to develop the practice of giving a little more thought to the process and then choosing to err on the gentler side.

So does this make you look like a wimp? Quite the contrary. The weak

*The weak have little choice over how they can behave.... You have to be strong to be gentle.*

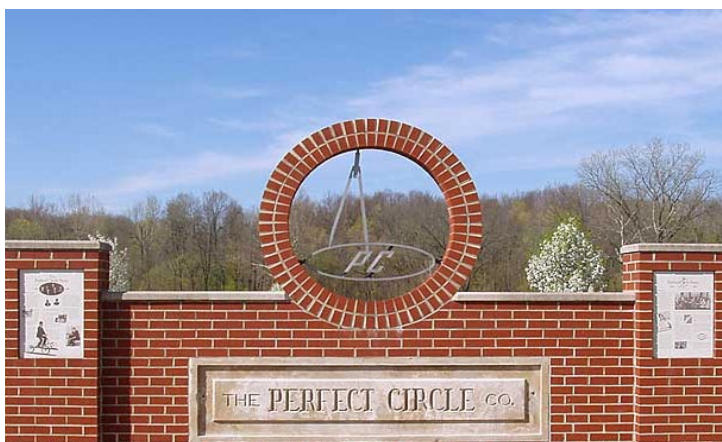
ber the advertisements for the Perfect Circle Piston Ring Company. They featured a big, rough-looking guy with a lantern jaw and a five o'clock shadow who was always engaged in some act like holding a baby or petting a puppy. The caption was always, "Tough, but oh so gentle." The message was that if the rings were not tough enough to resist wear and breakage, they couldn't be gentle with the cylinder walls. I don't know what ever happened to the Perfect Circle guy, but he was a great role model.

There is an important implication in the Law of Gentleness; the understanding that we will, indeed, make

have little choice over how they can behave. The strong can choose to act however they wish. Really, you *have* to be strong to be gentle. If you are being shaved with a straight razor, do you want a barber with strong hands or weak ones? Some readers may remem-

mistakes. Sorry, but we will rarely get it exactly right, whatever "it" might be. We will err, but, if we are smart—and tough enough—we will err on the gentler side.

—Lyle D. Feisel, Ph.D., P.E.  
Iowa Alpha '61



## BRAIN TICKLERS

(Continued from page 49)

- 5 Four people each flip a fair coin five times. What is the exact probability that they each get the same number of heads?

—Adapted from *Duelling Idiots and other Probability Puzzlers* by Paul J. Nahin

- Bonus. Five beads are strung on a horizontal insulated wire in the shape of a unit square, with the holes in the beads being large enough so that the beads can move to any location on the wire (that is, they can go around the corners of the square).

If each bead is given exactly the same negative electrical charge and the system is allowed to come to equilibrium, what are the coordinates of the five beads (with the non-symmetric bead at the origin and an edge of the square on the x-axis)? We want both solutions.

—Daryl Cooper

- C Computer Bonus. Consider the integer 7. Its cube is 343. The integer divisors of 343 are 1, 7, 49, and 343. Those divisors sum to 400, which is the square of the integer 20. Find the next larger integer such that the sum of the integer divisors of its cube is the square of an integer.

—Fermat, 1657

Postal mail your answers to any or all of the Brain Ticklers to Jim Froula, Tau Beta Pi, P.O. Box 2697, Knoxville, TN 37901-2697, or email plain text (no HTML, no attachments) to [BrainTicklers@tbp.org](mailto:BrainTicklers@tbp.org).

The cutoff date for entries to the Summer column is the appearance of the Fall BENT during early October.

The method of solution is not necessary, unless you think it will be of interest to the judges. We also welcome any interesting new problems that may be suitable for use in the column. The Computer Bonus is not graded.

Jim will forward your entries to the judges, who are: **H.G. McIlvried III**, PA  $\Gamma$  '53; **D.A. Dechman**, TX A '57; **J.L. Bradshaw**, TX A '57; and the columnist for this issue,

—F.J. Tydeman, CA  $\Delta$  '73

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Interested students can obtain promissory notes and loan applications from their chapter presidents, or [www.tbp.org](http://www.tbp.org), or directly from Secretary-Treasurer Jim Froula at the national Headquarters in Knoxville, TN.