The Evangelical Actuary

A Call to Awaken the Quiet Profession

AMONG PROFESSIONS, actuaries can claim the title of the quiet profession. It's time to cast aside the quiet veneer and embrace evangelical righteousness to combat the broad misconceptions of risk harbored by the public at large.

This call to action is predicated on three inferences. First, as an insurance agent, I've come to realize that agents are poor risk ambassadors. Second, the pioneering work in behavioral decision theory clearly demonstrates that people don't understand, or ignore, probabilities. Third, psychologists have discovered that people's perceptions of risk aren't aligned with reality. Actuaries affect the lives of the average person in myriad ways, and yet the public has limited insight into this important profession. More profoundly, the public has a gross misunderstanding of risk and how it affects their lives.

Actuaries have the facts, and it's time to spread the news. According to C. Starr, writing in *Science* in 1969, people are willing to accept risks from voluntary activities that are roughly 1,000 times as great as they would tolerate from involuntary activities that provide the same level of benefits. The growth of extreme sports and other dangerous activities—such as bungee jumping, BASE jumping, sky diving, and hanggliding—attests to the willingness of people to accept risk voluntarily. Balance that against the willingness of the public to have a radio tower built in the community. Isn't it ironic that some people will place the cell phone to their head but will not live near a tower for fear of microwaves?

The public's perception of risk is askew, and the need for evangelical actuaries who are prepared to disseminate the truth about risk has never been more pressing. It's time for actuaries to embrace the Academy's publication *Winning in the Public Eye* and take to the streets armed with their integrity, professionalism, and insights into risk.

Peter Bernstein, with his worldwide bestseller *Against the Gods: The Remarkable Story of Risk*, demonstrated that the public has an appetite for learning more about how risk has an impact on their lives. Robert Shiller also has informed the public about the nature and management of risk, but this is a task that must be taken to the trenches. Hearts and minds have to be won over one at a time, and once won they must be retained.

No other profession is equipped to assume this lofty aim, nor should any other profession claim to be so equipped. Risk derives from the Italian word *risicare*, which means "to dare," and actuaries have to dare to increase the public awareness of the profession. Bernstein's thesis is that quantitative achievements have facilitated the progress made by society over the past 450 years. If the public at large doesn't understand the quantitative achievements of the past 450 years, are we doomed to a society that demands zero risk because society doesn't understand what we can and cannot control?

Paul Slovic argues that people respond to the hazards they perceive and that their perception of hazards isn't very good. People draw inferences based on what they remember about a risk and fail to rely on statistical evidence in favor of judgmental biases. These judgments are commonly referred to as *heuristics*.

A common bias is the availability heuristics. People make judgments based on instances of events that are easy to recall or imagine, and the more frequently these events occur the more available to the memory they'll be. The mind doesn't necessarily distinguish fact from fancy, and vivid movies may cause people to draw judgments by inference, but the movie was make-believe, an exaggeration of life meant to entertain, not necessarily inform.

Recall what happened when *Jaws* was released? To this day, the movie forms the basis of beliefs about sharks for many people. According to researchers Slovic, Fischhoff, and Lichtenstein, people judged accidents to cause as many deaths as disease, but diseases actually take about 15 times as many lives.

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One reason people have difficulty drawing accurate inferences can be attributed to a lack of information, but it may result from an overabundance of useless information. T.A. Stewart reports that we're generating somewhere between 700 and 2,400 terabytes of new information annually, where each terabyte is equivalent to 1 million ordinary books. People are assaulted by a relentless cascade of information that they attempt to filter, with the goal of allowing only useful information to integrate into their knowledge base.

Unfortunately, inaccurate information almost always passes the filter. This contributes to faulty estimates of frequencies and probabilities when we have to make decisions under conditions of ambiguity. Individuals will often form an anchor that serves as a reference point for estimation. The interesting aspect of this is that the anchor can be any old number because to our minds any old number will do.

Anchoring on the wrong value can be comical or tragic, depending on the complexity or importance of the choice. For example, consider the person who is offered a job at a salary of $50,000 per year but anchored his expectations on $75,000 per year because his cousin Fred said he knew someone was earning that amount. Fifty thousand may have been an excellent offer, but the person rejects the offer because he's offended.

The impact of anchoring is exaggerated when people make adjustments to their original anchor based on new information or insights. Our job applicant will adjust his salary expectations on the $75,000 when evaluating the job offer and generally under adjust because his estimates tend to remain close to the anchor.

This problem isn't restricted to individuals. Groups and organizations, according to James March and Richard Cyert, search for alternatives in the neighborhood of current alternatives. This propensity causes groups and organizations to rely on the most recent cost of a similar project recently completed. As a result, these estimates are usually overly optimistic and end up causing underestimates, especially for matters involving money or time to complete projects.

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Consider the World Expo of 1988 held in Montreal. The worst-case scenario placed the loss of the event at $8 million, and it ended up more than $30 million short. The organizers weren't unaware of this; they chose to cling to the original projection, and none of them would consider the vast reams of evidence indicating that they were wrong.

In addition to thinking about the wrong things in the wrong way, people are also given to incomplete thinking. A failure to think consequentially is particularly prevalent. For example, the acquit-convict decision put before a jury is a complex problem that can have far-reaching implications. According to Reid Hastie and Robyn M. Dawes, jurors form an early impression about a defendant and evaluate only consequences that might ensue from the decision they make. The jurors ignore the full range of choice and cast the deliberative process aside to simplify the decision-making process.

People don't like to make decisions, and simplify the problem to manage their attention capacity more effectively. To avoid decisions, people simplify by relying on the deadlines and agendas of others, and organize attention around well-defined options, according to James March. More specifically, if decisions are affected by how decision makers attend, it's important to know more than the features and alternatives of a choice. The ecology of attention, who attends to what and when, becomes an important feature of choice construction.

According to Thomas Gilovich, people see what they expect to see and conclude what they expect to conclude. When people actively search for information, they tend to search for and gather information that confirms what they believe. When people are exposed to information that is contrary to what they believe, it has the effect of convincing the person that their original belief is fundamentally sound.

Gilovich's research has shown that gamblers tend to rewrite their personal history of success or failure. Losses are recoded as near wins, and, interestingly, gamblers remember their losses better than their wins. This contradicts theory that suggests that people focus on wins to maintain their confidence while conveniently forgetting their failures.

People tend to believe very flattering things about themselves, whether they win or lose. Watching one episode of *American Idol* tryouts concretely demonstrates that people hold themselves in very high regard. This is referred to as the overconfidence bias. It's so strong that in a survey of 1 million high school seniors, 70 percent self-reported that they were above average in leadership ability, and only 2 percent reported being below average.

When asked about their ability to get along well with others, *all* students responded that they were above average and 60 percent thought they were in the top 10 percent and 25 percent thought they were in the top 1 percent, says Gilovich. This bias causes us to attribute success to internal factors and failure to external factors. If we win, it was our skill, wit, and intelligence; and if we fail, it was because of the rain, the moon, or the Martians. In the final analysis, we're all wonderful.

The flow of information—right, wrong, or indifferent—will continue unabated, and people will try to insulate

themselves from its pernicious effects. Unfortunately, what we believe may be incorrect, incomplete, or out of time. This is problematic to the extent that people make real choices based on what they believe.

Some argue that the world has become too complex for our traditional methods, but Steve Fuller sees it otherwise. "Complexity is a mathematical feature of reality," he says, "referring to an increase in the number of dimensions that need to be taken into account. We can conclude that our world has become more complex without necessarily concluding that it demands a qualitatively different mode of analysis." In the rush to be on the edge of competition, what seems to have happened is that capturing information has become more important than cultivating it.

Consider for a moment a piece of Godiva chocolate. The chocolate and the feelings attached to it offer a paradox: It's harmless but at the same time wicked and tempting. The image of broccoli fades instantaneously, and yet the image of the chocolate endures.

News reports claim that more than 60 percent of us are overweight, and as a nation we've continued to expand as the exercise craze has swept the nation. The paradox, then, is: Why do we dream of the chocolate and have nightmares about broccoli when the scale will ultimately reveal the consequences of our choice?

The evangelical actuary is likewise confronted with a paradox: How do you tell people they're wrong when they are certain they're right? Cautiously. Thus far, actuaries have remained above the fray, and it may be time to step into the ongoing dialogue about the management of risk more overtly. It may be time to become more evangelical.

Joining the professional organizations of financial planners, brokers, and agents, and offering to speak at meetings on risk and probability, can achieve effective evangelizing. The talks have to be light and provide information in a format that's usable to these groups. They're salespeople concerned with making a living, but they're also concerned with doing a good job.

What type of information can be provided that could help them make a living and do a better job? A message phrased as a method of overcoming objections is always popular. These people manage risk every day, and need information about the risks they and their clients confront. This simple step can enable an actuary to reach not only the target group but also the hundreds of clients and prospects of each financial planner, broker, or agent. ●

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