The Myth of Death

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An alien has descended to earth and been transformed into a human being. He (let’s assume it becomes a male) has the powers, but also faces the fate of an ordinary human being, which means he is mortal. Sharing every human’s aversion to death, this alien-turned human being (let’s call him Peter) decides to conduct some research while he still possesses supernatural powers—he will study what he can do to prolong his life. Peter has the clever idea of investigating the locations of all deaths on earth and, to his delight, finds a strong correlation between death and lying on a hospital bed. Being a sagacious scholar (before his transformation, Peter was given a chance to choose his profession and he cleverly chose to be a university professor), he sets out to confirm his finding through rigorous econometric analysis.

Peter was very careful in designing the research, painstakingly collecting all the relevant data, and running the following regression. The dependent variable was the individual-level probability of death, and the key independent variable was a dummy variable indicating whether or not the person was lying on a hospital bed at the time of death. Peter was careful to control for age, gender, education, and income, and included country, culture and year fixed effects. (Cannily suspecting that country and culture are highly correlated, Peter tried other models which excluded one or both variables, and confirmed that his conclusion was robust.) He even included a dummy variable representing lying on a non-hospital bed, and another representing being in a hospital but not lying on a bed (he observed that there were many men and women in hospitals who wore white costumes and who usually did not lie on the beds). Peter also tested alternative models with various interactive terms and investigated the modifying effects of different factors. To his great satisfaction, Peter confirmed his casual observation and concluded that lying on a hospital bed greatly increased a person’s chance of death. More precisely, he showed that lying on a hospital bed is the single most important factor determining an individual’s risk of dying. Indeed, it increased by 74.58%, and the effect was significant at the 0.1% level of confidence. The conclusion was obvious: mortals should avoid hospitals and their beds. A combination of the two is particularly fatal and should be avoided by all means.

Peter clearly had uncovered an important secret, and he lost no time in submitting his research to a renowned academic journal. The editors and referees were really excited after reading the manuscript. One referee, it is true, raised the issue of endogeneity, but Peter argued that endogeneity should not be a concern, as going to hospitals takes place prior to death, so staying in a hospital must cause death rather than the other way around. To further address the referee’s concern, Peter re-ran his regressions with some time lags and proudly confirmed that the results were as robust as one could imagine. After one round of communication, all of the doubts had disappeared, and the paper was promptly published within two months, which had never happened before. Academics thought it was the most significant discovery in social science in the past 50 years.
There was only one disappointment: All of the excitement came from academia. Ordinary people
did not seem to be impressed. (Unknown to Peter, the editors and referees in his field of study
were mostly aliens too. For some unknown reasons, tenure-track university positions had
become aliens’ most favored profession.) Peter was deeply puzzled.

Discussion
Karl Marx had said: “Philosophers have interpreted the world. The point, however, is to change it.”
We study the real world and form theories to explain why and how things happen, but our
ultimate purpose is to draw useful implications about the best way to achieve certain goals. It is
very often easy to explain something after it has happened, but if you try to apply the conclusion
to your own decision-making, you may often come to realize that the conclusion is useless. That’s
an indication that your explanation is logically flawed.

Students often conclude that Wal-Mart succeeded in the US because it squeezed its suppliers. I
would ask: Didn’t every business try to do the same thing? Is that strategy such a secret that most
businesses never realized that they could make more money by paying less to their suppliers? A
more reasonable explanation is that while every company tries to squeeze its suppliers, Wal-Mart
was able to do it because it was big enough. In other words, success enables a company to
squeeze its suppliers, rather than squeezing suppliers leading to success. The students’
conclusion explains the correlation (the two phenomena do go hand in hand) but they got the
causality wrong.

People claim that the SAS company succeeded because it treated its employees well. This
conclusion has similar problems. Making money (an outcome) and treating people well (a
strategy) are both desirable. Isn’t it wonderful that a company can achieve both at the same time?
But then, why don’t all other companies do the same? The strategy (treating your employees well)
is so simple and easy, and the outcome (making more money) is so wonderful that it sounds just
too good to be true. As the American humorist H. L. Mencken has said, “There is always an easy
solution to every human problem—neat, plausible, and wrong.” A more reasonable view would
recognize that as a strategy, treating people well has both benefits and costs. (In fact, this is true
for any strategy.) In some industries and for some companies the benefits may exceed the costs
and therefore the strategy is indeed a good choice, but this does not imply that it will work for
any company in any industry.

Another thing that SAS did well was to listen to its customers when designing the products. This
often leads people to conclude that a customer-focused approach will contribute to a company’s
success. It sounds like a platitude (business professors are good at platitudes), but before
accepting it blindly, recall what Steve Jobs has famously said: “You can’t just ask customers what
they want and then try to give that to them. By the time you get it built, they’ll want something
new.” If Apple had listened to what consumers wanted, we would never have had the iPhone or
the iPad. Customers have diverse needs. Are you going to provide a standard product that is
cheap to produce but which no one particularly likes, or a set of specialized products that cater to
every customer’s need but are expensive to produce? That’s a choice between standardization
and customization. Customization worked for Dell, but it’s unclear why it should always be the optimal choice. Henry Ford’s model T sold well too, and it was available only in black.

What, after all, do customers want in general? They want value at a low price. But that usually means lower profits for the seller, because valuable products are usually more expensive to develop and produce (think of organic food). Consumers and the seller are on opposite sides of the transaction, so their interests often clash. Whom do you want to please, customers or investors? Of course successful companies usually have happy customers, so it seems indeed possible to satisfy both parties. But again that is correlation. The causality is most likely the following: a company has developed a product or service which it can sell at a price which for its customers constitutes a good value proposition. That leads to both a successful company and happy customers. So the meaningful question in fact is how to develop a really great product. That’s the question every company is asking. Answering “listen to the customers” does not seem likely to help much.

There has been a great deal of research showing that education enhances an individual’s earnings. That conclusion would be more convincing if it had been established in controlled experiments. That would involve taking two entirely comparable individuals and giving one more education. (It’s very important, of course, that the subjects do not get to make their own choices, so it’s not “the one who chooses more education”). Then see who earns more. Such experiments would be very costly and even unethical (how can you deprive a person of education?), so I doubt that they have been done. Instead, scholars have reached their conclusions by showing that individuals with longer education and higher degrees earn more. But that, alas, is again correlation, not causality. Their logic of causality seems perfectly plausible and even noble: education makes a person better and smarter and therefore enables him to earn more. But there is an equally plausible (but less appealing) explanation: Individuals who are smarter, more persistent, more disciplined and emotionally more stable are more likely to persist in education and pursue higher degrees. But those personal attributes are also essential for career success. That is, personal success and receiving more education are both related to a third variable, personal attributes. Without such attributes, an individual may not reap the benefits of education even if he or she is forced to stay in school. More education certainly predicts career success, but the observed correlation can be explained by alternative mechanisms. Causality has not been established. The confusion probably explains why parents force children to study, why many people regret having stayed in school for too long, and why having a college degree or even an overseas degree sometimes fails to bring the anticipated financial rewards.

Examples of confusion between correlation and causality abound. Some mistakes are obvious, some are not. Did the rooster’s crow cause the sun to rise? Poets tend to be poverty stricken. Does writing poems break a person financially, or is it that only people who have undergone great hardship can understand life in enough depth to produce great poems? Tiger Woods and Lang Lang trained from a very early age and each reached to top of his profession. So should all kids be required to train for something from an early age? The first batch of motorcyclists in China all died from accidents. Does that imply that motorcycles are extremely dangerous? Countries where citizens consume more chocolate per head are more likely to produce Nobel
It seems that improving a country’s intelligence that is easy, neat, plausible, and cheap: increase chocolate consumption!

Chinese folk wisdom has many myths. Here are two of them. In the first, people claim that ultra-sound leads to abnormal fetuses, because they observe that pregnant women who had more ultra-sound examinations have a higher chance of giving birth to a child with some defect. Even if the fact is true, the causality is probably reversed: Mothers who had problematic fetuses will have more ultra-sound examinations. In another piece of folk wisdom people claim that exposure to cold temperatures causes a person to fall ill. Scientists have done experiments which involved directly planting flu viruses into people’s noses and found no relation whatsoever between infection and the ambient temperature or how much clothing the person wore. “Even if you are in Antarctica, if no one around you has the flu, there’s no way you will get sick because of your cold surroundings,” an experienced doctor says. We do have more flu in winter than in summer, but that’s because winter is dryer and flu viruses like a dry environment. The cold temperatures also force people to stay indoors, which increases the chance of person-to-person infections. And there is also reverse causality: feeling cold is a symptom of the flu. By the time you develop the symptoms and feel cold, you realize you have the flu. That’s probably why people associate flu with chills in the first place. But it’s the flu that causes you to feel cold, not the other way around.

Similarly, does drinking wine improve a person’s health, or do richer (and consequently healthier) people tend to drink more wine? Does exercise make a person healthier, or an healthier individual more likely to enjoy exercising? Does corporate social responsibility (CSR) enable a company to make more money, or is it that only successful companies can afford to spend on CSR (or stand to lose more if not showing CSR)? Does advertising increase a company’s profit, or is it that a company with good products will make more money and also need to spend more on advertising? People may be surprised to learn that Colorado has the highest rate of respiratory death among all U.S. states. An alien such as Peter would probably conclude that clean air damages people’s respiratory system. An earthing might instead reason that people with respiratory problems will tend to migrate to places with clean air, and eventually die there.

Understanding causality is important because misunderstanding it can lead to totally different implications. That’s one reason why copying other companies’ or individuals’ strategies rarely works. Without sound logic, seemingly plausible conclusions will be ineffective or even damaging. The only way to establish meaningful conclusions is through logical argument rather than pure observation, no matter how many observations you make. Managerial economics provides a coherent theoretical framework under which we can carry out logical analysis. The approach consists of at least two elements: (1) Actions are not arbitrary; they are consciously chosen by somebody. (2) What happens in the real world is best understood as the result of interactions between various parties’ choices. At its root, such a philosophy reflects humanitarianism and individualism because it does not treat people as robots or idiots (or aliens). Rather, it places free choices squarely in the hands of individuals. More practically, such methodology requires or implies that (1) Every action must be explained; failing to do so often lead to wrong conclusions; and (2) Every strategy has a tradeoff, and optimal choices are all contingent.