14-1 2209 33

The demand for freshness can have hidden environmental costs. While freshness is now being used as a term in food marketing as part of a return to nature, the demand for year-round supplies of fresh produce such as soft fruit and exotic vegetables has led to the widespread use of hot houses in cold climates and increasing reliance on total quality control — management by temperature control, use of pesticides and computer/satellite-based logistics. The demand for freshness has also contributed to concerns about food wastage. Use of ‘best before’, ‘sell by’ and ‘eat by’ labels has legally allowed institutional waste. Campaigners have exposed the scandal of over-production and waste. Tristram Stuart, one of the global band of anti-waste campaigners, argues that, with freshly made sandwiches, over-ordering is standard practice across the retail sector to avoid the appearance of empty shelf space, leading to high volumes of waste when supply regularly exceeds demand.

14-2 2209 34

In the studies of Colin Cherry at the Massachusetts Institute for Technology back in the 1950s, his participants listened to voices in one ear at a time and then through both ears in an effort to determine whether we can listen to two people talk at the same time. One ear always contained a message that the listener had to repeat back (called “shadowing”) while the other ear included people speaking. The trick was to see if you could totally focus on the main message and also hear someone talking in your other ear. Cleverly, Cherry found it was impossible for his participants to know whether the message in the other ear was spoken by a man or woman, in English or another language, or was even comprised of real words at all! In other words, people could not process two pieces of information at the same time.

14-3 2203 34

One dynamic that can change dramatically in sport is the concept of the home-field advantage, in which perceived demands and resources seem to play a role. Under normal circumstances, the home ground would appear to provide greater perceived resources (fans, home field, and so on). However, researchers Roy Baumeister and Andrew Steinhilber were among the first to point out that these competitive factors can change; for example, the success percentage for home teams in the final games of a playoff or World Series seems to drop. Fans can become part of the perceived demands rather than resources under those circumstances. This change in perception can also explain why a team that’s struggling at the start of the year will often welcome a road trip to reduce perceived demands and pressures.

14-4 2111 34

Some deep-sea organisms are known to use bioluminescence as a lure, to attract prey with a little glow imitating the movements of their favorite fish, or like fireflies, as a sexual attractant to find mates. While there are many possible evolutionary theories for the survival value of bioluminescence, one of the most fascinating is to create a cloak of invisibility. The color of almost all bioluminescent molecules is blue-green, the same color as the ocean above. By self-glowing blue-green, the creatures no longer cast a shadow or create a silhouette, especially when viewed from below against the brighter waters above. Rather, by glowing themselves, they can blend into the sparkles, reflections, and scattered blue-green glow of sunlight or moonlight. Thus, they are most likely making their own light not to see, but to be un-seen.

14-5 2109 32

Many evolutionary biologists argue that humans developed language for economic reasons. We needed to trade, and we needed to establish trust in order to trade. Language is very handy when you are trying to conduct business with someone. Two early humans could not only agree to trade three wooden bowls for six bunches of bananas but establish rules as well. What wood was used for the bowls? Where did you get the bananas? That business deal would have been nearly impossible using only gestures and confusing noises, and carrying it out according to terms agreed upon creates a bond of trust. Language allows us to be specific, and this is where conversation plays a key role.

14-6 2109 34

The last two decades of research on the science of learning have shown conclusively that we remember things better, and longer, if we discover them ourselves rather than being told them. This is the teaching method practiced by physics professor Eric Mazur. He doesn’t lecture in his classes at Harvard. Instead, he asks students difficult questions, based on their homework reading, that require them to pull together sources of information to solve a problem. Mazur doesn’t give them the answer; instead, he asks the students to break off into small groups and discuss the problem among themselves. Eventually, nearly everyone in the class gets the answer right, and the concepts stick with them because they had to find their own way to the answer.

14-7 2106 34

It is common to assume that creativity concerns primarily the relation between actor(creator) and artifact(creation). However, from a sociocultural standpoint, the creative act is never “complete” in the absence of a second position — that of an audience. While the actor or creator him/herself is the first audience of the artifact being produced, this kind of distantiation can only be achieved by internalizing the perspective of others on one’s work. This means that, in order to be an audience to your own creation, a history of interaction with others is needed. We exist in a social world that constantly confronts us with the “view of the other.” It is the view we include and blend into our own activity, including creative activity. This outside perspective is essential for creativity because it gives new meaning and value to the creative act and its product.

14-8 2103 33

Scientists believe that the frogs’ ancestors were water-dwelling, fishlike animals. The first frogs and their relatives gained the ability to come out on land and enjoy the opportunities for food and shelter there. But they still kept many ties to the water. A frog’s lungs do not work very well, and it gets part of its oxygen by breathing through its skin. But for this kind of “breathing” to work properly, the frog’s skin must stay moist. And so the frog must remain near the water where it can take a dip every now and then to keep from drying out. Frogs must also lay their eggs in water, as their fishlike ancestors did. And eggs laid in the water must develop into water creatures, if they are to survive. For frogs, metamorphosis thus provides the bridge between the water-dwelling young forms and the land-dwelling adults.

14-9 2011 34

Back in 1996, an American airline was faced with an interesting problem. At a time when most other airlines were losing money or going under, over 100 cities were begging the company to service their locations. However, that’s not the interesting part. What’s interesting is that the company turned down over 95 percent of those offers and began serving only four new locations. It turned down tremendous growth because company leadership had set an upper limit for growth. Sure, its executives wanted to grow each year, but they didn’t want to grow too much. Unlike other famous companies, they wanted to set their own pace, one that could be sustained in the long term. By doing this, they established a safety margin for growth that helped them continue to thrive at a time when the other airlines were flailing.

14-A 2206 34

Researchers are working on a project that asks coastal towns how they are preparing for rising sea levels. Some towns have risk assessments; some towns even have a plan. But it’s a rare town that is actually carrying out a plan. One reason we’ve failed to act on climate change is the common belief that it is far away in time and space. For decades, climate change was a prediction about the future, so scientists talked about it in the future tense. This became a habit — so that even today many scientists still use the future tense, even though we know that a climate crisis is ongoing. Scientists also often focus on regions most affected by the crisis, such as Bangladesh or the West Antarctic Ice Sheet, which for most Americans are physically remote.

14-10 2009 34

We’re often told that newborns and infants are comforted by rocking because this motion is similar to what they experienced in the womb, and that they must take comfort in this familiar feeling. This may be true; however, to date there are no convincing data that demonstrate a significant relationship between the amount of time a mother moves during pregnancy and her newborn’s response to rocking. Just as likely is the idea that newborns come to associate gentle rocking with being fed. Parents understand that rocking quiets a newborn, and they very often provide gentle, repetitive movement during feeding. Since the appearance of food is a primary reinforcer, newborns may acquire a fondness for motion because they have been conditioned through a process of associative learning.

14-11 2006 34

One of the main reasons that students may think they know the material, even when they don’t, is that they mistake familiarity for understanding. Here is how it works: You read the chapter once, perhaps highlighting as you go. Then later, you read the chapter again, perhaps focusing on the highlighted material. As you read it over, the material is familiar because you remember it from before, and this familiarity might lead you to think, “Okay, I know that.” The problem is that this feeling of familiarity is not necessarily equivalent to knowing the material and may be of no help when you have to come up with an answer on the exam. In fact, familiarity can often lead to errors on multiple-choice exams because you might pick a choice that looks familiar, only to find later that it was something you had read, but it wasn’t really the best answer to the question.

14-12 2003 34

Say you normally go to a park to walk or work out. Maybe today you should choose a different park. Why? Well, who knows? Maybe it’s because you need the connection to the different energy in the other park. Maybe you’ll run into people there that you’ve never met before. You could make a new best friend simply by visiting a different park. You never know what great things will happen to you until you step outside the zone where you feel comfortable. If you’re staying in your comfort zone and you’re not pushing yourself past that same old energy, then you’re not going to move forward on your path. By forcing yourself to do something different, you’re awakening yourself on a spiritual level and you’re forcing yourself to do something that will benefit you in the long run. As they say, variety is the spice of life.

14-13 1911 33

Focusing on the differences among societies conceals a deeper reality: their similarities are greater and more profound than their dissimilarities. Imagine studying two hills while standing on a ten-thousand-foot-high plateau. Seen from your perspective, one hill appears to be three hundred feet high, and the other appears to be nine hundred feet. This difference may seem large, and you might focus your attention on what local forces, such as erosion, account for the difference in size. But this narrow perspective misses the opportunity to study the other, more significant geological forces that created what are actually two very similar mountains, one 10,300 feet high and the other 10,900 feet. And when it comes to human societies, people have been standing on a ten-thousand-foot plateau, letting the differences among societies mask the more overwhelming similarities.

14-14 1911 34

There is a famous Spanish proverb that says, “The belly rules the mind.” This is a clinically proven fact. Food is the original mind-controlling drug. Every time we eat, we bombard our brains with a feast of chemicals, triggering an explosive hormonal chain reaction that directly influences the way we think. Countless studies have shown that the positive emotional state induced by a good meal enhances our receptiveness to be persuaded. It triggers an instinctive desire to repay the provider. This is why executives regularly combine business meetings with meals, why lobbyists invite politicians to attend receptions, lunches, and dinners, and why major state occasions almost always involve an impressive banquet. Churchill called this “dining diplomacy,” and sociologists have confirmed that this principle is a strong motivator across all human cultures.

14-15 1909 34

Vision is like shooting at a moving target. Plenty of things can go wrong in the future and plenty more can change in unpredictable ways. When such things happen, you should be prepared to make your vision conform to the new reality. For example, a businessman’s optimistic forecast can be blown away by a cruel recession or by aggressive competition in ways he could not have foreseen. Or in another scenario, his sales can skyrocket and his numbers can get even better. In any event, he will be foolish to stick to his old vision in the face of new data. There is nothing wrong in modifying your vision or even abandoning it, as necessary.

14-16 1906 34

We are more likely to eat in a restaurant if we know that it is usually busy. Even when nobody tells us a restaurant is good, our herd behavior determines our decision-making. Let’s suppose you walk toward two empty restaurants. You do not know which one to enter. However, you suddenly see a group of six people enter one of them. Which one are you more likely to enter, the empty one or the other one? Most people would go into the restaurant with people in it. Let’s suppose you and a friend go into that restaurant. Now, it has eight people in it. Others see that one restaurant is empty and the other has eight people in it. So, they decide to do the same as the other eight.