

Cracking the Curiosity Code

*The Key to Unlocking Human
Potential*

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Chapter 1

Survival:

The Mother of All Curiosity

Necessity is the mother of invention.
Anonymous

Curiosity, part of our DNA, is no different from our pursuit of food, water, or sex. Our bodies are programmed to be curious and reward us when we exercise that curiosity. It is our body's way of encouraging us to find new sources of food, new means of protecting ourselves, and new ways to aid us in times of crisis.

This deep, intrinsic force guides a curiosity that has caused scientists to refer to us as “informavores,” constantly seeking and digesting information. Even when our curiosity guides us on pursuits that appear to be a waste of time, our body finds a way to remind us that what we might not find useful today could be extremely useful tomorrow.

Like other animals, humans are learning machines.

Psychologist Jean Piaget says that we come into this world as tiny amateur scientists. From the first time we discover our own hands, we embark on a nonstop experiment to discover everything. This natural phenomenon aids in our survival in the searching of food and fending off threats.

This perpetual search not only helps us survive but also serves as the beginnings of our emotional intelligence. By teaching us to form bonds with others and develop empathy, we learn to incorporate others into our survival efforts.

The founder of modern psychology, William James, explained that curiosity is an impulse toward better cognition, one that leads us to how we acquire knowledge through experience. When we are curious, our brain anticipates a reward, dopamine is released, and we gain a sense of well-being. Just as we gain a sense of reward from eating, sex, or winning the lottery, we get a rush from learning something new.

Endless subsequent studies have linked curiosity to our survival as a species. Neuroscientists Ethan Bromberg-Martin and Okihie Hikosaka were the first to discover this curiosity-dopamine reaction in their extensive research with monkeys.ⁱ

Professor Evan Polman from the University of Wisconsin demonstrated that our curiosity levels change as we encounter different situations.ⁱⁱ Additionally, in a series of studies, Drs. Oliver Robins, James Demetre, and Jordan Litman demonstrated that, when confronted with a crisis, people are apt to be more curious.ⁱⁱⁱ In fact, curiosity aids them in their efforts to cope with crises.

In stress and at other times, our curiosity can drive us to the extreme. In *For the Time Being*,^{iv} Annie Dillard tells the story of British officer James Taylor, who in the 1930s was stationed in what is now Papua, New Guinea. With the aid of his military aircraft, Taylor made contact with people in a mountain village perched 3,000+ feet above sea level.

The villagers had never seen a trace of the outside world, much less an airplane. After spending time with the local tribe and completing his studies, Taylor made plans to depart. As he prepared to leave, one of the villagers, using vines cut from the jungle, tied himself to the fuselage of Taylor's airplane shortly before it took off. The villager explained calmly to his loved ones that, no matter what happened to him, he had to see where this strange craft came from.

According to Rabbi David Wolpe of Sinai Temple in Los Angeles, that astonishing act of courage arises from a deep human need within all of us to understand, discover, explore, and follow the thread back to the beginning. "Living in the world is not enough," he proclaimed. "We share a hunger to decipher its mysteries."^v

That deep-seated curiosity can lead to both survival and self-sacrifice. Maurice Samuel, writer, historian, and chronicler of Judaism, stated that curiosity is the secret of the basic survival of the Jewish people. Early on, he explained, the Jews decided that they were not going to disappear until they figured out how things worked. Strapped to the metaphorical fuselage, we are still here, Samuel said, seeking to understand.^{vi}

Why did humankind travel to the moon? Why are our sights set on Mars? We humans are deeply curious beings, and the more urgent the need to sustain our very survival, the more powerful our curiosity about the surroundings we occupy.

According to a study performed at Harvard University, Hemmelder and Blanchard concluded that our economy, our society, and our very existence are strongly shaped by our drive to obtain information. They called humans “informavores,” creatures who search for and digest information just as carnivores hunt for and eat meat. Described from an evolutionary perspective, “There is a clear reason why we, like all animals, seek out information: it is vital to our survival and reproduction. A bird that spent its whole life eating berries from a single bush and never explored its environment could be missing out on a much better food source nearby. Thus, it is not surprising that exploration, hence curiosity, is common, if not universal in the animal world.”^{vii}

These researchers further explained that monkeys, for example, will push a button at high rates of speed just for an opportunity to peek out of a window. They found that roundworms do not crawl to a food source directly. Rather, they circle toward it in a way that gives them the most information about their environment.

The researchers also described curiosity-driven behaviors in very young animals, even before they’ve had enough experience to

learn the association between knowledge and rewards. For example, human newborns tend to stare at new visual scenes for a much longer time than they look at known visual scenes.^{viii}

Animals tend to learn over the course of their lives that a greater knowledge of their environment leads to greater rewards, such as food or other essential resources. They are continuously in survival mode, asking, “Where’s my next meal coming from? How do I protect myself from predators? Where will I sleep tonight?” As a result, they are constantly curious. Even domesticated animals never lose that intrinsic curiosity. They may have it cushy today, but they never know if and when it will all end. Even pets that get all the creature comforts a human can provide are constantly on alert.

By contrast, there are humans who conclude that they have advanced beyond survival mode and have lost that intrinsic instinct. If they have less uncertainty, they have less curiosity.

But that’s certainly not true of humans who have some form of malady. Like animals, theirs can be a life of continuous survival, and as a result, endless curiosity.

Consider Erik Weihenmayer, author of *Touch the Top of the World*, *The Adversity Advantage*, and *No Barriers*.^{ix} Besides being an author, filmmaker, and speaker, Erik is first and foremost an adventurer.

Erik is also blind, which means living a life in survival mode and being constantly curious. For Erik, it has also meant being constantly daring. Despite going blind at age fourteen, he pursued his life of adventure. On May 25, 2001, he became the only blind person to reach the summit of Mount Everest. At age thirty-nine, he reached the top of Carstensz Pyramid, completing his quest to climb all seven summits, the highest peaks on each of the seven

continents. *Time* magazine wrote: “There’s no way to put what Erik has done into perspective because no one’s ever done anything like it.”^x

Erik’s greatest achievements are by-products of his enormous curiosity. He had no choice but to be curious; he had to survive without sight in a seeing world.

Other studies have suggested that survival is at the root of the pursuit of information itself because it’s intrinsically rewarding. The reason primary rewards such as food and sex are pleasurable is that animals that enjoy eating and reproducing are more likely to survive and produce offspring. Evolution has therefore developed an internal reward system to drive behaviors that help animals acquire the resources they need. Could this same reward system be prompting information-seeking behavior in humans?

Learning seems intrinsically rewarding.

Let’s review. Curiosity, intrinsic and fundamental to our very being, is referred to as trait curiosity. In contrast, state curiosity is the type of curiosity driven by external factors such as money, prestige, and power. Trait curiosity affirms that humans are hard-wired to have a lifelong interest in learning and to explore what’s new to them.

Scientists caution us, however, that our trait curiosity can drive both good and bad behaviors, from arson to drug experimentation to fearlessness of all kinds. But curiosity is viewed overall as a positive characteristic.

Scientists also tell us that, while trait curiosity is an inherent characteristic, it can be more prominent in some people than in

others. That begs the question of how we know when someone exhibits a high degree of trait curiosity, a strong intrinsic desire to learn and grow. It also prompts us to ask, is that intrinsic curiosity constantly active? Or must it be aroused? Or must we rely more heavily on external measures, our state curiosity, which includes money or prestige?

I have been told I was curious since my earliest days as a child. Can that curiosity be attributed to my trait curiosity inherent in my nature? Or was it my surroundings or circumstances? Whatever it was, it seemed to require no external drive or motivation. In effect, I relied on my own ingenuity to survive, and I believed it was due to my curiosity as much as anything else.

As I said, neither of my parents held traditional jobs. One was legally blind, and the other was largely a caretaker. They had little guidance to offer in the ways of the work world or a traditional lifestyle. At an early age, I found myself gravitating to other family members for such guidance.

As I reflect on those years now, my curiosity seemed instinctual, the core of my survival. The strength of my curiosity became apparent to me in my youth, and I've been working on developing curiosity ever since.

One of my radio guests was Steve Forbes, chairman and editor-in-chief of *Forbes* magazine and a former U.S. presidential candidate. He credited his roots in conservatism to curiosity: "I, like everyone else, had a yearning to know why things happen. Why do disasters happen? Where things go right, where things go wrong—you continuously learn about it and get a greater understanding of how to endure, survive, and move forward."

Ken Fisher, a world-famous investment guru, described in an interview with me how curiosity and survival form the core of his keys to sound investments: “Most investors fail not because of a lack of training or knowledge, but because humans are hard-wired, through millennia of evolution, to deal with survival problems. We are not hard-wired to deal with capital markets, which are inherently counterintuitive.

“But you can counteract that. You can learn how your brain deceives you and retrain it to see markets properly. Once you do that, you will no longer be fooled by conventional investment advice or blind to remarkable patterns. You will know what others don’t.”^{xi}

Wherever we turn and whatever we choose to pursue in our lives, the forces that drive us can be traced to that innate curiosity we actively use as infants. Our same curiosity to learn our surroundings and survive can guide us today.

But many questions remain about this powerful force embedded in each of us and how it serves as an essential tool for our survival. For example, why are some types of information more tantalizing to us than others? Why are we all so different from each other and interested in different things?

It’s curiosity that urges me to dig deeper into this intriguing phenomenon.

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