

The Next Great Evolutionary Leap

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We are in the middle of an unprecedented jump in evolution. For centuries, evolution has proceeded by means of the random mutation of genes. A member of a species would have a mutation that conferred an evolutionary advantage (think of the giraffe's neck or the human's opposable thumb).

Only a tiny percentage of gene mutations were adaptive and useful. The rest disappeared into the junkyard of biology (think of a hand with six fingers or the flightless bulk of the dodo bird).

But today, evolution is proceeding using a different and much faster mechanism. That mechanism is consciousness.

Human beings are unique in their ability to switch genes on and off with their minds. Think back to a stressful event and you upregulate or "turn on" the genes that code for stress hormones such as adrenaline and cortisol.

Meditate and you send signals that downregulate or "turn off" those same genes. Harbor a negative belief or thought and you turn on the genes that stimulate the formation of corresponding neural pathways in your brain.

But meditate, stroke a pet, tap EFT acupressure points, breathe deeply, walk in nature, or de-stress yourself by other means and you activate brain regions associated with happiness. Over time, the brain regions we use regularly grow, while those we don't use shrink. Studies of long-term meditators show that the memory and attention centers of their brains grow, especially a part of the hippocampus called the dentate gyrus that is involved in the coordination of emotional regulation across different regions of the brain.

Unchecked stress has the opposite effect. It enlarges the amygdala, the alarm center of the emotional midbrain. Use the neural circuits that carry the signals of stress repeatedly and you stimulate their growth. At the same time, underutilized brain regions shrink.

Human beings are thus able to create the matter of molecules, cells, and neurons purely with the action of their minds. No other species throughout

evolutionary history has been able to accomplish this feat of biological self-engineering.

It also does not take the millions of years it took for evolution by random mutation to produce enhancements in biological structures. We can accomplish it in the space of weeks, months, and years.

In chapter one of my book *Mind to Matter*, I present the case history of a journalist who increased the volume of his brain's dentate gyrus by 22.8% in just eight weeks. He committed to a program of mindfulness and meditation, and the results did not take generations to show up in the form of physical adaptation. He and those around him noticed behavioral improvements in just two weeks and neuroscientists were able to measure substantial brain volume changes in both the hippocampus and other brain regions over the course of eight weeks. Imagine what neural plasticity might produce in eight months or eight years of mindful meditation, tapping, and other evidence-based stress reduction techniques.

These techniques also have the ability to produce changes that affect the entire body. These include the proliferation of stem cells, as well as their ability to migrate to sites of injury and to adhere to the tissues they are designed to restore (Church, 2018). Some of the frequencies generated by meditation in the brain have the ability to repair skin cells, bone cells, and muscle cells. Skin elasticity, bone density, and muscle mass are all affected. These techniques also produce improvements in resting heart rate and blood pressure, according to new research (Bach, Groesbeck, Stapleton, Banton, Blickheuser, & Church, 2016). This ability of human beings to craft their bodies as well as their brains is remarkable, and unprecedented in the history of evolution. In *Mind to Matter*, I call it "your everyday superpower."

The reverse is also true. Fill your mind with stressful thoughts and you turn on the genes that code for stress hormones. Over time, cortisol does not merely shrink the memory and learning centers in your hippocampus while increasing the volume

of your amygdala. It ossifies the hippocampus by depositing calcium in that brain region, turning flexible neural bundles into rigid and flexible bony structures. This produces the opposite effects in the body, compromising skin elasticity, bone density, and muscle mass. The thoughts of the mind and the emotions of the heart change the structure of the brain and the composition of the body.

We are thus evolving our bodies and brains over the course not of eons, but of weeks. We have the potential to renew ourselves—or compromise our health—across time spans that evolution has never contemplated before. We can use our minds and emotions as epigenetic tools, deliberately changing gene expression. This feat has been accomplished by no other species in history.

What are the implications for the future? We have the ability to make ourselves happy or unhappy rapidly, not across generations. We can boost our health in the very short term rather than relying on accidental long-term mutations. We can change our mood at will and, with it, nudge the matter of our bodies toward health and longevity. We can create higher qualities of life for ourselves in short order.

This changes the world around us. The phenomenon of “emotional contagion” has been studied extensively over the course of three decades or more. This is the idea that emotions are contagious, similar to the way in which bacteria and viruses are contagious. You can catch happiness or unhappiness from your neighbors as surely as you can catch the flu. In one famous experiment, 689,003 Facebook users were affected by emotional contagion without their knowledge (Kramer, Guillory, & Hancock, 2014). The following is a story I tell in *Mind to Matter*.

An Organizational Culture Corroded by Emotional Contagion

By Stacene Courvalllis

Our company manufactures specialized construction equipment and is admired by others in our industry as an example of tightly focused growth.

As the recent construction boom expanded, so did we. We hired a lot of new people quickly, and one of those was Wilma, a senior executive who reported to me. Her resume looked perfect and she'd passed the interviewing process with flying colors.

Three months into her job, her performance was good, but Wilma had begun sharing concerns with me about various projects and people. A couple of other executives who usually left work early. A budget overrun in another department. An engineer with sensitive proprietary information who was friends with a peer at a competing company.

She framed her observations in terms of concern for the health of our organization and I was grateful to her for pointing them out.

Soon Wilma's gripe sessions became a regular part of my workload and she continued to discover problems. She felt that the corporate culture was too lax and that the other executives didn't give me enough respect. She believed we needed to sharpen our mission statement and our goals. She believed we could downsize our workforce and increase our profit margins.

I started to wonder if there was much more wrong with the company than I had perceived and I became suspicious of other members of the executive team. The exuberant, fun tone of our office began to erode, despite our accelerating financial success.

Then our CFO, Jason, asked for a confidential meeting with me. He told me that Wilma had been talking to him about the failings of others in the office and Jason did not believe her concerns were warranted. As I dug deeper, I discovered a pattern. She took other executives into her confidence, smearing all the managers except the person she was talking to.

I also realized that the real problem was me. I had been sucked into Wilma's stories and lost my own sense of trust in our people and security in the company's direction. I had been unconsciously transmitting this to the rest of the team, leading to the loss of our emotionally uplifting organizational culture.

Some quick web searches soon revealed that this malaise had a name: emotional contagion. Unhealthy emotions can spread among people in close proximity just the way diseases spread. Our whole company had become infected.

Once I identified emotional contagion, I could see it in every organization I encountered. I went into a courtroom and felt the thick fog of discontent and unhappiness that filled the building. I went into the local music store and noticed that the smiles of employees seemed genuine and they were truly having fun as they interacted.

I let Wilma go late on a Friday afternoon. On Monday morning, the mood in the entire office had changed. People were relaxed once again. Our company felt once more like a fun and creative place to work. The flow of conversation was no longer guarded. Trust had returned. With the carrier of the bad feelings removed, the previous positive emotional tone quickly reasserted itself. Best of all, I felt good about myself and the company again.

The Framingham heart study has been collecting data since 1948 and has now profiled three generations of residents of the town of Framingham, Massachusetts. A substudy of 4,739 people over 20 years looked at their happiness levels and how these levels affected those around them (Fowler & Christakis, 2008).

It found that one person's happiness can boost that of another for time periods as long as a year. When a person in the Framingham social network became happy, the chances that a neighbor, spouse, sibling, or friend would become happy increased up to 34%. Living within a mile of a friend who became happy increased a participant's chance of happiness by 25%.

"You would think that your emotional state would depend on your own choices and actions and experience," observed study coauthor Nicholas Christakis, a medical sociologist at Harvard University. "But it also depends on the choices and actions and experiences of other people, including people to whom you are not directly connected. Happiness is contagious."

Not only did happy people affect those around them, but happiness also showed a ripple effect. Three degrees of separation out, people became happier. Having a friend know someone who was happy increased the chances of happiness by as much as 15%, and even in the next layer out, the likelihood was still 6%.

Negative emotions were also contagious, but not as much. Having an unhappy connection increased the chances of unhappiness by an average of 7%, as opposed to 9% for happiness.

These mood shifts are producing epigenetically induced change in the people around us. When we function as agents of emotional contagion, spreading joy and compassion all around us, we're also triggering those same beneficial

genetic changes in our neighbors. In this way, health improvements can spread across an entire population. Our species has created bioengineering abilities on a large scale using consciousness alone.

The way I use this information personally is an extension of my daily meditation practice. I wake up, tap away any impediments to inner peace, and then meditate. Research tells me that meditation is producing substantial changes in my brain as well as the neurotransmitters and hormones that signal my cells.

I then visualize sending compassion to other people and start my day with a sense of happiness and connection. My body is flooded with oxytocin, the "bonding hormone," while my brain is flooded with anandamide, the "bliss molecule." I begin the day with a sense of goodwill toward others and appreciation and gratitude for everything in life just the way it is. Infusing my mood and body in this way helps me live my day aware of my mission of helping others be happier and training them to release their stress. By helping myself, I'm helping the world, even if in a small way.

You have the same power. Your everyday superpower of changing your body and brain is one you can exercise every day. You can take control of your emotions and biology by filling your consciousness with healthy and happy thoughts. You then produce positive emotional contagion among all those around you. You're part of the great evolutionary cycle that is producing the next big jump.

Evolutionary jumps don't need to be gradual. In her book *Jump Time*, Jean Houston points out that massive leaps in human progress such as the Renaissance took place in relatively short periods of time (Houston, 2009). The Renaissance involved only about 1,000 people over the course of about 25 years, yet it produced radical shifts in science, mathematics, governance, education, law, and medicine.

I believe we're in the middle of another such massive evolutionary jump. Today's jump is one in which we humans are taking control of our own minds. We're recognizing that we decide on the content of our consciousness, and when we direct our consciousness in a positive way, we change everything around us. The millions of people who meditate each day can affect millions of people around them.

I create meditations for a smartphone app called Insight Timer. At any given moment, in real time, when you open the app, you find that hundreds of thousands of people are meditating. They're producing beneficial changes in their bodies while being agents of positive emotional infection in the world. We haven't widely recognized the global and social implications of this yet, but they are profound. Millions of people affecting millions of other people through emotional contagion are in the midst of producing the next great Renaissance in consciousness. I believe this will play itself out in all fields of human endeavor as surely as did the Renaissance that ended the Medieval Period.

From our newly evolved state, we will look back at where we were before this jump with the same astonishment with which post-Renaissance humans looked back at the Dark Ages. We'll see the dysfunctional habits of pre-21st-century human beings and be amazed. How could people tolerate war, famine, torture, discrimination, cruelty, and disease? We will look back on the medicine of today with the same astonishment with which we now view bloodletting, leeches, bear baiting, witch trials, slavery, child labor, and other archaic norms.

Realizing the potential of the mind to heal our bodies, we will turn to consciousness as the frontline of health. Understanding our ability to make ourselves happy, we will seek happiness from internal states rather than material possessions. Understanding our ability to produce emotional contagion in others, we will take care with our words and deeds. We will use our evolutionary superpowers to produce an infinitely better world.

Today's headlines about climate change, political corruption, tribal conflict, economic inequality, ethnic cleansing, and gender discrimination may make this seem like an impossible dream. Yet I believe that the jump is already here. We're way past the tipping point. Huge positive evolutionary change is inevitable. We've already crossed the threshold into the Age of Conscious Creation—we just don't know it yet. The simple act of meditating every day and tapping regularly

is enough to put us on track as individual human beings. Soon we will see the results of emotional contagion showing up as massive social and political change.

We cannot predict where this evolutionary trajectory will take us, and it is unlikely that it will be to a place that we can imagine. Evolutionary history is not unfolding in a linear way and the origins of our past do not predict the destinations of our future.

But we don't need to know. Centering ourselves every day, living in the moment, letting go of our stress, and being kind to our neighbors is all we need to do. The big picture takes care of itself as we take care of the little picture of our own minds. This is why the consciousness of every individual is so incredibly important. As we fix the little picture of our mood today, we directly influence the big picture of global affairs.

I invite you to join me in this profound jump. All it takes to initiate change is to tap away your stress each day after starting your morning with meditation. It's a tiny commitment of time with immense payoffs in the form of health and happiness. You may not think of yourself as an agent of social change when you take these small steps. In reality, you're accelerating the next evolutionary leap.

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