

We Are Nature! by Ronit Herzfeld

"Human behavior is subject to the same laws as any other natural phenomenon.

Our customs, behaviors, and values are byproducts of our culture. No one is born with greed, prejudice, bigotry, patriotism and hatred; these are all learned behavior patterns. If the environment is unaltered, similar behavior will reoccur." Jacque Fresco

The phrase "survival of the fittest," associated with Darwin's groundbreaking 'natural selection' work, has been widely misunderstood to mean the strong survives and the weak perishes. However, this was not what he meant. In his original text Origin of the Species, he wrote "survival of the fit" – the organisms that continually fit best into their evolving environment survive.

What is profound about the re-framing of "survival of the fittest," is that we can start to examine not only how well we as a species are fitting into our physical ecosystem, but also how our individual and collective behaviors fit into our social eco-systems. We can begin to inquire into whether our earlier adaptation to "fit," to belong in and survive our childhood environments still "fits" us as adults in our current evolved environments (in our personal, interpersonal relationship, life and workspaces).

If survival is dependent on our capacity to continually evolve to fit into our environment, we need to first understand our natural and social eco-systems, understand ourselves – our perceptions, our roles, our capacities and our beliefs and values - so that we can discern whether and how we fit. We can only begin to explore and discern our own fitness when we appreciate the interdependent dynamics of the environments we inhabit.

"We often forget that we are nature. Nature is not something separate from us. So, when we say that we have lost our connection to nature, we've lost our connection to ourselves." Andy Goldsworthy

We have become dis-membered and dis-sociated from our bodies and from our relationship with Nature. We need to re-collect our nature, re-member that we are organisms that partake in Nature's creative and intelligent lawfulness and as such are informed by its brilliance. We are part of 4.5 billion years of evolutionary wisdom, where Nature's "life purpose" has been and continues to be: "create conditions conducive for life." In other words, inherent in Nature is a willfulness, a will for life. This universal will for life is imbued in us, our bodies and behaviors as it is in all of Nature's organisms, deep beyond our cultural socialization patterns.



When we carefully examine each organism's environment and behaviors, we discover we are as driven as they are to evolve, adapt, and interact with our environment to survive and reproduce. We watch Nature shows with awe as they illuminate how organisms evolve in and adapt to their habitats and teach us how they care for their young, get food when they are hungry, build homes, etc.

We are often blown away by Nature's complex dynamics as illustrated by this relationship between a parasitic fungus and an ant:

The fungus, Cordyceps, starts growing on the jungle floor and spreads itself through the air by releasing thousands and thousands of spores. When a spore lands on an ant, within days the fungus' roots infiltrate its muscles, flood its brain with chemicals that drug and compel the ant to climb up a tree. The drugged ant climbs until there is just the right amount of light and humidity for the parasite growing inside. The fungus then paralyzes the ant, and then over the course of several weeks the fungus grows inside, up and through the ant's body. The fungus then is able to release more spores and infect more and more ants. The fungus artfully hijacks ants' bodies to help it reproduce over and over again. Truth is often stranger than science fiction!

"Zombie" Parasite Cordyceps Fungus Takes Over Insects Through Mind Control *National Geographic. (2019, April 30)*

This bewildering dynamic of Nature is just one of countless that scientists have been discovering as measuring technologies have become more sophisticated. Thanks to the fields of evolutionary biology, ecology, physics, agriculture, system dynamics, biomimicry, etc., the invisible variables and conditions that govern the lawful dynamics within Nature have become more visible to us across diverse contexts, species, and environments. We are learning more and more about the brilliant orderliness and consistency of patterns and relationships from the complexity of coral reef ecosystems to the collective intelligence of bees, and more. The Rules that Govern Life on Earth with Sean B Carroll, evolutionary biologist reveals how a few simple rules govern all life on earth, from the cells in our bodies to populations of animals on the Serengeti.

As we have come to discover and better understand the underlying dynamics of natural systems, we have gained insight on how we can better adapt to our environments, regenerate degraded environments, and create innovations that make our lives healthier and more efficient. For example, we have come up with interventions that make forest ecosystems healthier by removing invasive species and reintroducing beneficial species.



By studying and learning from nature's ingenious designs we have also developed innovative new products, like Velcro, that make our lives easier.

Our curious and problem-solving minds tend to focus on creating solutions to problems in our physical environments, like poverty, disease, species and habitat loss, etc. However, we generally approach these issues in a compartmentalized and piecemeal manner, fixating more on fixing problems and scaling them as fast as possible than taking our time to fully investigate and appreciate the complex and interdependent relationships that exists in our eco-systems.

We have hardly begun to apply the same level of curiosity or investigation toward understanding our personal and interpersonal relationships and the counterproductive and destructive behaviors we frequently exhibit toward ourselves, each other and our planet.

It is when we feel our own creatureliness that the false separation between ourselves, each other and the natural world falls away. The more we connect to ourselves, the more we can begin to experience, like all organisms and elements around us, that we are designed and governed by nature's creative and lawful universal principles and patterns.

The growing field of Biomimicry is now making these universal patterns and principles that govern life much more visible to us. Biomimicry is defined as the "conscious emulation of life's genius."

Biomimicry takes the natural world as mentor and teacher — for, as Janine Benyus puts it, "we are surrounded by geniuses." Nature solves problems and performs what appear to us as miracles in every second, all around: running on sunlight, fitting form to function, recycling everything, relentlessly "creating conditions conducive to life." Biomimicry, An Operating Manual for Earthlings

What if we applied biomimicry, "the conscious emulation of life's genius," to the study of our own human nature?

What if we studied the interior workings that determine our feelings, thoughts and actions in response to our environments, as rigorously as scientists study the nature of other organisms?

What might we discover that could help us understand the root causes of the divisive and destructive behaviors present within us, our families, communities and nations?



What might we be able to imagine and invent if we discovered the threads of creative genius that innately reside within us?

Might we learn how to build healthier relationships with each other and our planet, communicate better with one another, cooperate brilliantly together, heal together and live more fulfilled and graceful lives together in a healthy and thriving natural eco-system?

Let's examine the parallels between the way other organisms in Nature develop and adapt in their environment and the way we evolve and adapt to our family environment:

Let's imagine we are in a vegetable garden, and we are planting a tomato seed. The tomato seed has a specific genetic makeup and DNA. We plant it in a specific location where it takes root in the soil. The soil has its own unique nutrient, mineral and structural composition (ie: different levels of phosphorus, nitrogen, etc. different properties...silty, loamy, etc.). The soil and the seed are exposed to diverse external conditions and forces, rainfall and sunlight, natural disturbances, chemical toxicities, etc. The seed has evolved a capacity to process and adapt to these specific external environmental conditions and forces to survive; the tomato plant bends to maximize the input of sunlight; it latches itself to a fence for stability in the wind and generates a new shoot after being eaten by an insect.

Similarly, our nature is informed by this same creative intelligence and is part of the lawful and complex planetary ecosystem.

Symbiosis and the Unself: Evolutionary Biologist Lynn Margulis on How Interbeing Shapes Life on Earth

Where do we end, and the rest of the world begins? In this blog, Maria Popova highlights the work of biologist Lynn Margulis. Drawing upon verse, imagery, and quotes Maria inspires reflection on the rich, interconnected and interdependent web of life with which we are entangled.

We can think of each one of us as a unique seed. We each have been born with specific and distinctive predispositions and innate attributes and gifts - a unique self-expression. Some of us are more introverted than extroverted, athletic, artistic, musical, mathematical, spatial, visual, emotionally sensitive, etc. Some of us connect deeply to a sense of Oneness and a feeling that there is more here than our subjective perspectives and experiences.



Like a seed, each of us was born (planted) into a specific environment, a household soil, that had different familial, cultural, and social compositions, properties, and structures (parents, education, socio-economic, political, religious, etc.) This unique environment greatly influences and shapes the expressions of our DNA, innate gifts, and the formation of our psyche.

In the same way a seed must contend with and adapt to the conditions in its external environment to survive, each of us must contend with and adapt to our social habitat, our social ecosystems.

For example, maybe you grew up in a household that had a lot of conflict and tension, and to avoid and escape the conflict and tension you became an avid reader and spent time living inside your imagination. Or maybe amidst all the conflict in your household the only way you could get your parents' attention was for you to throw tantrums and become aggressive in your behavior. Or maybe you learned that humor could ease the tension in your family, so you became a constant jokester and the "funny" person in the family.

As we contend with our social habitat, it shapes us, and we shape it through our adaptive behaviors. It is through this co-evolving relationship that we are conditioned to in-habit the protective strategies that help us cope and function in our often demanding, scary and painful social environments. Through this analysis we can begin to recognize that the development of our unique personality – our perspectives, moods, attitudes and beliefs - is just as lawful, as a seed's maturation process in becoming an adult plant, and that all organisms are learning how to "fit" and belong to their environments in order to survive.

This brings us back to the concept of fitness. The tremendous advances made in evolutionary biology, psychology, technology and particularly neuroscience in the past four decades have brought critical new knowledge to us, which we have not yet integrated or applied. **Until we internalize this knowledge, we will not see that we no longer fit into our social and natural environment.**

These advances elucidate the various mechanisms and processes responsible for many of the personal and global challenges we are currently facing. Applying their findings can guide us towards adapting behaviors so that we can fit into our ever-changing environments, not only in our natural world, but in our personal, interpersonal and global environments.

For example, many of our perceptions and behaviors were formed in early childhood, where our physical, emotional and cognitive capacities were limited, rendering us truly



vulnerable and dependent on adults around us. In order to survive, we adapted to our unique familial and other social environments by seeking approval and acceptance, often with great difficulties and pain. Due to our recent neurological discovery that our brain is designed to conserve energy, we learned that many of these adaptive perceptions and behavioral patterns persist throughout adulthood. They continue to inform our perceptions and reactions to an ever-evolving environments (fear of conflict/rejection), even though we are no longer helpless, vulnerable children. We are actually quite capable and competent adults who could be adept at navigating difficult conversations and situations if we were not still governed by fear reflexes and confirmation biased perceptions we formed in early childhood.

If we are to survive in our various environments, we first need to see that we behave in ways that no longer fit our ever-changing personal, interpersonal and natural ecosystems. We need to discover which of our old, conditioned behaviors from childhood no longer serve us as adults, and learn what new behavioral patterns we need to evolve - physically, emotionally, psychologically, spiritually -- which will empower us to not only survive, but thrive.

Gratefully, we can now draw upon the advancing fields of neuroscience, psychology, evolutionary biology, biomimicry, technology and spirituality to help us study and evolve our own nature as rigorously as we do other biological systems. We can integrate findings from these sciences to help us map the invisible variables and conditions that shape our internal and interpersonal ecosystems. Equipped with this inner map, we can discover, organize and navigate our chaotic internal world. We can begin to learn what makes us tick, who we are and why we do what we do. By revealing the lawfulness that underlie our internal chaos, we are able to meaningfully address our internal pains, feelings and stories that block us from experiencing reality as adults and perpetuate our suffering and destructive behaviors.

We live on a planet that is conducive to life and knows how to heal itself. We can learn from its 4.5 years of trials and correction – its wisdom. Our survival depends on our ability to see ourselves in the context of Nature's great creation and fit in accordingly.

We must begin by humbly seeing how we fit in this wondrous natural world. However, this is not easy – our current adaptation shapes our perceptions, which determine how we experience and navigate our environments. We will start by understanding the nature of perception.