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# BIOMIMICRY

## BIOMIMICRY

Bio-inspired leadership and business coaching

By Silvia Mirandola, PhD, ACC

**I**n a rapidly changing world and competitive landscape, companies need to speed innovative and lean solutions to market for evolving and surviving. It is also important that they build up resilience and agility in order to adapt to changes quickly, resist disruptions smoothly and deal with crisis creatively.

How can leaders draw inspiration from the African wild dogs, ants, forests, viruses and bacteria to create innovation and agility within organizations?

The central idea is that Nature has already fixed many problems society is facing. Animals, plants and micro-organisms are experienced engineers, designers, collaborators, and problem

solvers. They know what works, what is appropriate, and most importantly, what lasts on Earth.

Biomimicry is a new discipline that aims to take inspiration from natural selection solutions adopted by Nature and translate the principles to human engineering, architecture, design and recently also to social innovation. The Biomimicry approach favours “choices” tested by Nature which had 3.8 billion years to understand what works best and what does not.

Biomimicry is an English word that we literally could translate as “mimicking life” or, to be more precise, “imitating life,” since *bios* in ancient Greek means life, and *mimēisthai* means to

imitate (hence *mimesis*, imitation).

Janine Benyus, co-founder of the Biomimicry Institute, biologist, and author of “*Biomimicry: Innovation Inspired by Nature*” – the book that brought biomimicry into the public eyes in 1997 – has defined biomimicry as the “conscious emulation of life’s genius.”

**CONSCIOUS** = being intentional

**EMULATION** = learning from living things, then applying those insights to the challenges humans want to solve

**LIFE’S GENIUS** = recognizing that life has arrived at well-adapted solutions that have stood the test of time, within the constraints of a planet with finite resources.

Biomimicry has only recently appeared on the business radar. It is therefore an interdisciplinary field that takes inspiration from nature to find problem-solving strategies, an inventive methodology, a lens through which to guide choices and decisions in the business environments where uncertainty is a constant companion.

We can learn new ways of communicating, adapting to change and collaborating through the observation of Nature's successful strategies over billions of years, and working to incorporate them into teams and leadership style.

By observing mutualistic relationships amid organisms, managers could shift the mindset from competition to "co-competition" (cooperation + competition) – in other words, collaboration with competitors for mutual benefit.

Teams can improve their performance and effectiveness by emulating the self-organization of ants and bees or the collective intelligence of fish schools and flocks.

“ We can learn new ways of communicating, adapting to change and collaborating through the observation of Nature's successful strategies over billions of years, and working to incorporate them into teams and leadership style. ”

We need to look at workplaces as living systems (biomes) driven by the principle of autopoiesis: a system that can be represented as a network of processes of creation, transformation and destruction of components that, by interacting with each other, continuously support and regenerate the system.

Through Biomimicry, bio-strategies, and eco-behaviors, coaches and trainers can find a source of inspiration to generate a "thinking out-of-the-box mindset" in their clients and organize workshops on teamwork, collective intelligence, agility, and change management.

They can offer new tools for more sustainable and healthy work environments by favoring the switch from change to opportunity, from disruption to regeneration.

A typical example could be the mutualistic relationships in Nature as a model of effective cooperation and support. The mentors we here explore, as mutualism champions, are the dwarf mongoose and the Southern yellow-billed hornbill, two animals of the African savanna.

The common dwarf mongoose (*Helogale parvula*) is a small mammal that lives near termites, which it eats. It moves with group circumspection to scour the savanna in search of insects and reptiles. The Southern yellow-billed hornbill (*Tockus leucomelas*) often acts for mongooses, following them as they hunt for the termites and making a warning call if they see potential predators approaching. In return, they feed on all insects that escape the mongooses. It's a

symbiotic relationship that works for both species.

So, what can we learn from these two mentors? Mutualism is a widely used strategy in nature: species often gain a mutual advantage, and different resources and services are exchanged. Cultivating cooperative relationships within organizations, empowering cross-functional teams (exchange of resources and different skills) could be one strategy to increase innovation within the company 'eco-systems' and effectively achieve common goals.

## COACHING QUESTIONS:

- Q:** In your opinion, what is the meaning of mutualism?
  - Q:** What kind of strategies are adopted by these two mutualistic partners?
  - Q:** How can you translate these bio-strategies into your business relationships?
  - Q:** What is their final goal?
  - Q:** What are the mutual relationships you should cultivate to achieve business goals?
  - Q:** What resources are being made available to each other in this cooperative exchange?
  - Q:** How could you promote and incentivize a culture of mutualism?
- By transferring principles of operation from biological models to human business challenges, biomimicry is today the most sustainable and innovative solution to all the questions that large companies ask themselves:
- Q:** How to switch companies from ego-system to eco-systems?
  - Q:** How to make our relationships effective and strategic?
  - Q:** How to reshape our organization to support our people's vital resources?
  - Q:** How to develop leadership and teamwork by learning the most effective and efficient methods from animal and plant communities?
  - Q:** How to manage the growth of our company without going to the detriment of the environment?

To answer these questions, Biomimicry is the scientific methodology to learn and look at other organisms as a model of sustainable evolution and growth, switching organizations from ego-systems to eco-systems.

Biologists, designers, engineers, economists, consultants, leaders, and coaches can now meet around the same table, asking themselves, "How does Nature resolve this?" and searching Nature's great wisdom for the answers to their most pressing questions. •