

The Map is the Territory

Gregory Bateson, Systems Theory, and Autopoiesis

by [Kris Hallbom](#)

<http://www.nlpca.com/DCweb/themapistheterritory.html>

Before he passed away, someone asked an ailing Gregory Bateson, "Who will carry on with your work, once you're gone."

Gregory, being the great philosopher, anthropologist and systems thinker that he was replied, "A man by the name of Humberto Maturana out of Santiago, Chile. He has been doing some very interesting research that compliments my work." (Ruiz, 1997)

Bateson and Maturana, both contemporary philosophers and systemic thinkers, spent a good part of their academic careers searching for the "Patterns of Life". Both men have strong backgrounds in cybernetics and were colleagues of the great cybernetician Heinz Von Foerster, who originated the legendary Macy conferences in the 1950's in which cybernetics developer Norbert Wiener played a great part in. Bateson and Maturana found each other in the same circles over and over again throughout the years, which probably prompted Bateson to make such a powerful statement about Maturana in the final months of his life. One would think that it was Gregory's hope that someone as brilliant as he, could continue on with the genius of his work.

Humberto Maturana, a neuro-biologist and professor, co-developed the Santiago Theory of Autopoiesis with his student and colleague, Fransisco Varela. Together, the two men developed a theory for living systems that is very similar to the work of Gregory Bateson. While Bateson's work concentrated on the overall "meta pattern" that connects all living things, Maturana and Varela's work focused on "Autopoiesis" the pattern to be found inside of all living systems.

Autopoiesis has to do with how systems create, sustain and generate life while maintaining their overall structure and organization. Autopoiesis explores the internal occurrences that happen within a system and the parts that make up the system; the relationships between those parts; the boundaries that surround and contain the parts; how information emerges from the system via cognition; and how external information triggers the structure of the overall system.

The Greek meaning of the word auto is "self" and refers to the autonomy of self organizing systems. The Greek poiein means production or creation, such as poetry and refers to the ongoing creative processes that exists within all living systems. Thus autopoiesis means "self creating". I remember the first time I came across the word autopoiesis. I was fascinated with the promise that this concept offered for understanding not only the systemic nature of human beings, but also the possibility of becoming attractors for what we want in life through the process of "self creating".

Autopoiesis is important to the field of NLP because it offers us a deeper understanding of the structure and organization of our human experience on this earth.

According to Maturana, the "organization" of a living system represents its identity, while the "structure" represents the components that make up the system. A system may change its structure without loss of identity, as long as the organization remains the same. An example of this autopoietic principle can be seen in the art work of 16th Century Italian painter Giuseppe Arcimboldo, who created portraits of faces which were composed of fruit, vegetables and seafood. The organization of the portrait is represented by the image of the face, while the structure of the face is composed of food. No matter what kind of food or element Arcimboldo made his faces out of, the organization/identity stayed the same. It was the structure that changed by simply changing the components that represented the image of the face.

A person's life is organized around their identity, yet the structure of their life is always changing. The pure essence of who they are will always be the same, it's the structure of their experience that changes. Moreover, the actual process of creating structural changes is as important as the changes that take place, for the process represents ongoing relationships between the components that form the structure of the system. It is the nature of these relationships that demonstrate the various patterns of organization which constitutes the structure of the system's identity. (Maturana and Varela, 1987)

The central characteristic of an autopoietic system is that it undergoes continual structural changes while preserving its web like pattern of organization. The components of the network continually produce and transform one another, and they do so in two distinct ways. One way is through the process of "self renewal". Every living organism continually renews itself. When you clip your nails, they grow back. If you cut yourself, the wound will heal. When you trim your hair, it grows back. In spite of this ongoing change, the person maintains their overall identity or pattern of organization.

The second type of structural changes in a living system are changes in which new structures are created, thus new connections in the autopoietic network. These type of changes occur because of environmental influences or as a result of the systems internal dynamics. A living system interacts with its environment through "Structural Coupling". Moreover, the environment only "triggers" the structural changes, it does not specify or direct them. (Capra, 1996)

According to Maturana and Varela, structural coupling establishes a clear difference between the ways living and nonliving systems interact with their environments. Kicking a stone and kicking a dog are two very different stories, as Gregory Bateson was fond of pointing out. The point that Bateson was making is that when you kick a stone you can predict exactly how far it will go by calculating its weight, it's mass, the pressure exerted on the stone by your foot and so on. However, when you kick a dog, it will be a totally unpredictable event. You will have no idea where the dog will go. For every dog might have a different internal response to being kicked. Some dogs might run, others will howl or bark, and others might wag their tail with excitement because they like being

kicked.

Our experience of life is truly an internal experience. Maturana says that the map is the territory. Ultimately, the structure of our internal experience of reality is the only map we'll ever know. Beyond that, it's all perceptual illusion. External occurrences may happen outside of the self bounded system and may trigger an internal response, but given the structure and organization already in tact; the experience will ultimately be determined or distinguished by the history of the organism and how it chooses to represent reality through its perceptual filters. The structure of the internal response is what determines the experience for the living system.

References:

Ruiz, Alfredo, The Contributions of Humberto Maturana to the Sciences of Complexity and Psychology, Santiago, Chile; The Institute for Cognitive Therapy Abstract, 1997.

Capra, Fritjof, The Web of Life, New York, NY; Anchor Books, (A Division of Bantam Dell Publishing Group, Inc.) 1996.

Maturana, Humberto & Varela, Fransisco, The Tree of Knowledge: The Biological Roots of Human Understanding, Boston, MA, Shambhala Publication, Inc., 1987.

Bateson, Gregory, Steps to an Ecology of the Mind, New York, NY; Ballentine Books, 1972.

[Kristine Hallbom](#) is the co-director of the NLP Institute of California and is a professional writer. She is a long time student of NLP and Systemic Thinking, and holds a degree in Psychology and Language.

- See more at:

<http://www.nlpca.com/DCweb/themapistheterritory.html#sthash.uzSWB3XC.dpuf>