

SYSTEMS THEORY AND THE ALEXANDER TECHNIQUE

by Bobby Rosenberg

Systems Theory

Writing in the early 20th century, **F.M. Alexander** struggled to find a language to describe his belief in the unity of the self, a unity that could not be understood studying parts. The scientific worldview at that time was heavily influenced by the 19th century Cartesian belief that the way to understand a complex system is to reduce it to its most fundamental parts and study those elements.

Today there is another approach to understanding complex phenomena that recognizes the importance of the unity of the whole: **Systems theory**, introduced in the 1930s, views complex systems as dynamic webs or networks of interconnected components or subsystems. Rather than reducing the system to its parts, systems theory focuses on the organization of interrelated parts into a whole. In this paper I hope to show that systems theory is a valuable tool for understanding the Alexander Technique in the context of contemporary scientific thinking.

Fritjof Capra, a noted physicist and avant-garde thinker, is a pioneer in systems thinking. Since the late 1960s, **Capra** has written many popular and technical books and articles explaining the inadequacies of mechanistic science and creating new metaphors for understanding the physical universe. His best known books include *The Tao of Physics*, *Green Politics*, and *The Web of Life*.

Like **Alexander**, **Capra** does not believe that the way to understand complex phenomena is to use the Cartesian approach. Instead, **Capra** espouses a holistic approach based upon the interconnectedness of all the parts. He proposes a change of paradigm that would radically alter the way we try to understand ourselves as well as our universe. The systems approach that **Capra** embraces sees all living systems as dynamic interrelated groups of activities.

*All these natural systems are wholes whose essential properties arise from the interactions and interdependence of their parts. These systemic properties are destroyed when a system is dissected, either physically or theoretically, into isolated elements. Although we can discern individual parts in any system, the nature of the whole is always different from the mere sum of its parts. Accordingly, the systems approach does not concentrate on basic building blocks, but rather on basic principle of organization.*¹

Systems Theory and the Alexander Technique

As I began to consider **Capra's** insights about systems in terms of the **Alexander Technique**, I remembered that **Alexander** always spoke of the human organism as a "self", a systemic view recognizing the psycho-physical wholeness of the individual. **Alexander** hypothesized that humans, like other vertebrate animals, rely instinctively and unconsciously upon a well-coordinated guidance and control system that works according to a basic principle of organization: the Primary Control.

Capra defined five criteria that characterize systems thinking. Here are the definitions of those five criteria, followed by my thoughts on the manner in which each one relates to the **Alexander Technique**. Through this presentation, I hope to show that **Alexander's** original thinking anticipated one the major paradigm shifts in the scientific world in the 20th century.²

1) Shift from the parts to the whole.

In the new paradigm, the relationship between the parts and the whole is reversed. The properties of the parts can be understood only from dynamics of the whole. In fact, ultimately there are no parts at all. What we call a part is merely a pattern in an inseparable web of relationships.

It has long been understood in the teaching of the **Alexander Technique**

that changes in parts alone do not solve the underlying problem of the misuse of the self as a whole. **Alexander's** loss of voice was reversed when he was able to activate himself in a systematic way, through the Primary Control. This is one of the most fundamental principles of his technique.

2) Shift from structure to process.

In the new paradigm, every structure is seen as the manifestation of an underlying process. The entire web of relationships is intrinsically dynamic.

Alexander's principle of "means whereby" clearly represents a process rather than a structure. A very pertinent example can be seen in the traditional view of postural reeducation as an alignment of the various parts of the body, a view that evaluates the posture as good or bad depending upon how it looks.

From an Alexandrian viewpoint, posture is the result of activating the Primary Control system and letting the whole self relate to gravity as well as to the activity in which it is involved. Good posture, independently of how it looks, is simply that which best supports the activity being expressed.

3) Shift from objective to "epistemic" science.

*In the new paradigm, it is believed that epistemology –understanding of the process of knowledge- has to be included explicitly in the description of natural phenomena. This recognition entered into physics with **Heisenberg** and is closely related to the view of physical reality as a web of relationships.*

Whenever we isolate a pattern in this network and define it as a part, or an object - whenever we define boundaries - we do so by cutting through some of its connections to the rest of the network, and this may be done in different ways.

Alexander refused to see the body as separate from the rest of the self and parts as separate from each other. His technique is based on human beings gaining a better understanding of themselves by learning how to learn. The principles that guide us on the Alexander journey include self-awareness, inhibition, direction, and the undeniable wholeness of the human organism –all of which are fundamental to the process of acquiring self-knowledge.

4) Shift from building to network as metaphor of knowledge.

The metaphor of knowledge as a building has been used in Western science and philosophy for thousands of years. There are fundamental laws, fundamental principles, basic building blocks, etc. The edifice of science must be built on firm foundations. During periods of paradigm shifts it was always felt that the foundations of knowledge were shifting, or even crumbling, and that feeling induced great anxiety.

This anxiety is often felt on an individual level when the student is guided into a new configuration that leaves her feeling something very strange compared to her normal experience. In my own work with "neutral postural conditions," the student is asked to do something simple, such as to stop raising her chest. The most common response is a sense that something is not quite right. Even though I can prove to the student that the conditions brought about by not raising the chest are more suited to the activity she is pursuing, the conflict between objective and subjective experience may be overwhelming and may cause her to question her most fundamental beliefs.

5) Shift from truth to approximate descriptions.

This new approach immediately raises an important question. If everything is connected to everything else, how can we ever hope to understand anything?

Since all natural phenomena are ultimately interconnected, in order to explain any one of them we need to understand all the others, which is obviously impossible.

In the new paradigm it is recognized that all scientific concepts and theories are limited and approximate. Science can never provide any complete and definite understanding. Scientists do not deal with truth in the sense of a precise correspondence between the description and the described phenomena. They deal with limited and approximate description of reality.

Today, many people still think that postural improvement can be achieved by manipulating individual parts of the body's structure to look a certain way.

This approach comes from a Cartesian paradigm, and it leads to stiffness. If we want to foster the full range of freedom of movement and expression we must understand that systemic change is gradual and instead of looking at exact

physical relationship between parts of the body, we can rely on the organizational principle upon which the Alexander Technique is based – the Primary Control.

Alexander's Approach

As he discovered and understood the conditions leading to his own generalized misuse, **Alexander** reasoned that improvement of his use and functioning was dependent upon the restoration of the Primary Control mechanism. **Alexander** presented a hypothesis that involves a series of principles, objectives of which are the establishment of a reliable sense register and the conscious activation of the mechanism as the basis for organically structured use of the self. This does not involve an absolute standard of “correct use” to be achieved, but rather an appreciation that bringing about change is a long-term process of evolving improvement that is never finished.

The **Alexander Technique** involves a teacher activating the student's mechanism so that she does not have to rely upon her unreliable kinesthesia to guide herself, the result of which is a recovery of natural and efficient use and functioning. By directing herself consciously and becoming aware of the new conditions, the student rescues what was originally unconscious – sensory guidance. She gradually becomes able to activate her own Primary Control, focusing on and analyzing the resultant sensory information. In effect, she creates a sense register that will guide her and will assure that the effort needed for any activity is distributed in a systemic, efficient pattern.

The Alexander Technique involves a teacher activating the student's mechanism so that she does not have to rely upon her unreliable kinesthesia to guide herself

A study of **Alexander's** major publications reveals a gradual evolution of what he considered to be his technique. In his 1910 book *Man's Supreme Inheritance*, he presented a clear description of the teaching and learning of technique, which he referred to simply as “*conscious control*.”³ What appears here as the “*doctrines of antagonistic action and mechanical advantage*” later evolved into the much more comprehensive and concise concept of Primary Control. The inference of coordinating factor in the human psychophysical organism is key to his theoretical structure, and the deterioration of use and functioning in modern human beings leads logically to the need for reeducation:

*By this process of reeducation an effective installation is made of the reflex muscular systems involved through the creation of an intelligent directive power on the part of the individual ...*⁴

Then, he presents a definition of his technique that anticipates systems theory by describing a group of activities that cannot really be separated from one another. I have paraphrased and presented this definition in five distinct, but interacting, aspects, all of which can be related to a systems view of the self.⁵ Not only does this definition focus on the whole human mechanism and not the parts but the processes create changes that are never absolute, but happen in small approximations. This sense of small shifts that slowly change our entire way of being is familiar to anyone who has gone through the process of studying the **Alexander Technique**.

This sense of small shifts that slowly change our entire way of being is familiar to anyone who has gone through the process of studying the

Alexander Technique.

1. **Active participation:** The student must have a clear understanding of her own misuse, as demonstrated by the teacher, and a willingness to participate in the process of recovering her good use.

2. **Inhibition:** The teacher must teach the student to understand the erroneous ideas that result in her misuse, be conscious or unconscious. He must teach the student to eradicate these preconceived ideas and inhibit her habitual way of directing her actions.

3. **Self-direction:** The student must learn to consciously send the correct mental orders and distinguish between giving an order and carrying it out in her habitual way.

4. **Attention to process:** The teacher must teach the student that in order to overcome her habitual manner of doing things, it is important to consider the means more than the ends.

5. **Guided sensory education:** When the student has practiced her mental orders, the teacher must guide the change, bringing about the use of muscles in a coordinated and non-habitual way.

In *Constructive Conscious Control of the Individual* (1923), having stated his case that unreliable sensory appreciation is a universal problem in our age, **Alexander**, introduces his recently discovered method of “*expert manipulation*,” which would later be called “hands-on” by Alexander Technique teachers. At this point his technique “*involves correct manipulation on the part of the teacher in the matter of giving the pupil correct experience in sensory appreciation, in the spheres of reeducation, readjustment and coordination.*”⁶

By 1932, in *The use of the Self*, what was earlier referred to as “*position of mechanical advantage*” now appears as “*Primary Control.*”⁷ *The Universal Constant in Living* (1947) contains a number of references establishing the importance of the Primary Control and thus supporting **Alexander’s** discoveries. Of particular interest is an “appreciation” written by the American anatomist **G.E. Coghill**, who characterizes the concept from his scientific perspective:

*The practice of Mr. F. Matthias Alexander in treating the human body is founded, as I understand it, on three well-established biological principles: (1) that of the integration of the whole organism in the performance of particular functions; (2) that of proprioceptive sensitivity as a factor in determining posture; (3) that of the primary importance of posture in determining muscular action.*⁸

Note that **Coghill** particularly mentions the functional integration of the organism, which correlates with **Capra’s** focus on the whole system created by parts inseparably knit together, organized into a unified network of the whole.

Conclusion

Studying **systems theory** has given me a contemporary insight into our century-old technique. Science is barely starting to shift from one paradigm to the other, but the knowledge is there for us to contemplate, and it provides a very strong argument for **Alexander's** insistence on treating the self as an indivisible whole, manifested in an infinite variety, unique in each individual.

We may never fully understand the origins and intricate processes of the human organism, but having **Alexander's** Primary Control as an organizational principle can help us to understand the relationship of the parts to the whole and the systemic guidance and control that govern both the parts and the whole. In the final analysis, the **Alexander Technique** is a beautifully simple process of restoring our Primary Control in order to recover our natural ease and freedom to live as we choose, albeit in a world that is antagonistic to nature and freedom.

Endnotes:

1. Fritjof Capra, "Five Criteria of Systems Thinking," *Elmwood Quarterly*, (Winter 1992-93), 9.
2. Fritjof Capra, "Five Criteria of Systems Thinking," *Elmwood Quarterly*, (Winter 1992-93), 10.
3. F.M. Alexander, *Man's Supreme Inheritance* (London: Methuen & Co. Ltd., 1910), 186.
4. Alexander, *Man's Supreme Inheritance*, 187
5. F.M. Alexander, *Conscious Control (Man's Supreme Inheritance) In relation to Human Evolution in Civilization* (London: Methuen & Co., c.1908), 16-19.
6. F.M. Alexander, *Constructive Conscious Control of the Individual* (Originally by E.P. Dutton & Co., London, 1923. Downey, CA: Centerlines Press, 1985), 122.
7. F.M. Alexander, *The Use of the Self* (Originally by E.P. Dutton & Co., London, 1932. Downey, CA: Centerlines Press, 1984), 16.
8. G.E. Coghill, "Appreciation" in F.M. Alexander, *The Universal Constant in Living* (London: Chaterson Ltd, 1947), xx.



Bobby Rosenberg

Bobby Rosenberg finished training at ATI-SF in 1989 and almost immediately moved to Bogota, Colombia, where he teaches the Alexander Technique both privately and in groups at the Pontificia Universidad Javeriana, working mostly with performing arts and music students. He is Director of ETAC (Colombian School for the Alexander Technique). Publications in Spanish include two books, a chapter in another book, and several articles. His current research is sponsored by the Javeriana University.

© 2013 Bobby Rosenberg. All rights reserved.