

# LEARNING – THE MISSING LINK IN PHYSICAL THERAPY

## *A Radical View of the Feldenkrais Method*

By Frank Wildman, Ph.D.

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In viewing the field of physical therapy today, I am reminded of the situation of the pre-evolutionists who began investigating biology, geology, paleontology and other natural sciences in the 19th century. Their situation was remarkably similar. There was a wealth of newly observed phenomena and a profusion of methods to observe more – just as in physical therapy today. But there was a conceptual void that made it impossible to account for the many contradictions and inconsistencies in the observed data.

That there was a progression in the hierarchy of fossils and life forms was observed again and again, but no one could propose a theory that could account for all the data and explain how life began or how and why life moved in time toward ever greater complexity. To explain all these myriad observations and to try to integrate all the catalogued information of the natural world, scientists proposed incredible theories, i.e. the theory of *spontaneous generation of life*; the theory of *acquired characteristics*; the theory of the *diluvianists*, who believed the world had been destroyed by periodic great floods; the theory of the *vulcanists*, who believed the world had been repeatedly inundated with lava, etc.

It is important for physical therapists to realise that each of these theories were founded on large amounts of scientific research and had great numbers of scientists supporting each of them – while often ridiculing the others. Some tried to find a way to synthesise bits of all of them into some eclectic world view. Eventually many scientists began suspecting that something was missing in all of these theories and that there was a need to find something completely different – something outside of any particular hypothesis, but yet able to contain or link all of the data in one, overarching integrated view of nature.

Today, there are a large variety of techniques available in physical therapy and many diverse schools of thought brought to bear upon the patient population. However, the many theoretical and clinical inconsistencies and occasional discrepancies between techniques point up to a lack of agreement as to what basic principles of human functioning underlie effective treatment. I observe an unfortunate lack of any integrated, comprehensive theory pertaining to the function of the brain and body that could include all modalities of patient care.

Many therapists resolve this dilemma by using an eclectic approach. They might problem solve a particular neurological case by using some NDT here and a little PNF there, depending on the type of condition, or sometimes according to what seems to work best at the moment. This can create problems, since assumptions underlying the operational models of PNF about how the brain actually functions are quite different than the models used for NDT. It is as though there are two different brains with mutually exclusive principles of operation in the same patient's head. This leads to occasional disagreements with

therapists from the other school of thought as to what is an appropriate or good treatment plan. And although many therapists have studied or used both, there are also many strict adherences to one or the other, because they feel "the other" is not well thought out enough, or less workable.

Therapists working in the orthopaedic area who use joint mobilisation procedures have blended another eclectic variety of techniques – derived from *Maitland*, *Caltenborn*, and several others. The work of *Cyriax*, the Norwegian muscle energy techniques and cranial-sacral work are often added to the list after the therapist has been exposed to them in continuing education courses. Yet some of these methods contradict each other, both in application and in functional principles, which often leads to a "do whatever works best" approach.

The critical impasse that affected all the sciences about 100 years ago was overcome by Darwin's theory of the evolution of life by natural selection. It was the most creative, important and far-reaching perception of life that Western civilisation had developed for a millennia. Darwin's theory quickened the thought of the world, tied together many confusing and fragmentary loose ends in all fields of science and changed our view of life and our place in it forever. Darwin's insight enabled the emergence of a truly scientific world view. It was the missing link for all natural and biological sciences.

It is in my opinion that physical therapy is at a critical juncture not dissimilar in kind from that facing those pre-evolutionary scientists. What is needed today is an encompassing model that links together all of the disparate practices and hypotheses currently operating in the physical therapy profession one especially that dissolves the historical division between mind and body and thereby fully links together psychological as well as physical healing arts.

In order to develop a conceptual framework to integrate the current procedures in physical therapy, a model must be developed that would include all aspects of human functioning – from motion to emotion. As is the current focus in physics, there is a need to discover a unified "field theory" to encompass all the types of clinical cases that are worked with piecemeal in the hospital and clinic today.

At the heart of this more potent conceptual framework for physical therapy should lie the recognition of not only the enormous capacity for learning that exists in the human being, but also the overwhelming need for it. The reason an increasing number of neuroscientists and researchers are becoming interested in the *Feldenkrais Method* is because the method not only speaks to this need to learn, but has developed clinical skills that consistently use the singular aspects of human learning ability in application to everything from serious orthopaedic problems to chronic pain patients, to infantile neurological disorders, to the training of superior athletes, to the field of

eriatrics. It is especially interesting that this is done using one consistent conceptual framework and set of practices.

Models of human learning sophisticated enough to handle the immense task of conceptually integrating all of the bio-sciences have already been developed by such prominent biologists and neuroscientists as Humberto Maturana (PhD, neuro-biology, Harvard University) and Karl Pribram (MD, PhD, Stanford University, Neuro-Psychiatry Lab and President of the Feldenkrais Foundation) and other scientists involved in the exploding field of cognitive studies. What interests them is that the clinical application of these models are already being utilised in the sensory-motor learning approach of the *Feldenkrais Method*.

Of course, there are already numerous models of sensory motor learning based on developmental sequencing in use by many physical therapists. However, most of what is meant by learning in currently utilised models such as PNF, NDT, sensory motor integration, etc, is really *conditioning*. A great confusion exists in differentiating between the type of learning that takes place in conditional responses and the learning process based upon self-awareness — of which only a human being is capable.

In current physical therapy curricula, there is a healthy tendency to want to become more "scientific" in the approach to patient care. This is necessary, however, there is a proclivity among many people to try to explain all aspects of human ability from the lowest level of organisation possible — for example, the naive belief that if we could only understand physics and biochemistry in relation to neurology, we would come to a scientific understanding of the human mind. Therefore nothing is considered valid unless it can be referred back to the basest level of understanding. This is not scientific, but rather a misapprehension of the nature of science.

To describe the functional capacity of a patient in terms of the most fundamental levels of operation in an attempt to be more scientific is like defining a dog as a barking cabbage. From this perspective, human learning does indeed look like nothing more than an elaborate pattern of conditioned reflexes, all of which rest upon lower levels of biological processes at the foundation. However, the human capacity for self-awareness is very difficult to explain in a linear and hierarchical manner and such materialistic scientism refuses to admit that humans have completely unique attributes that cannot be understood in terms of components.

Part of the reason the *Feldenkrais Method* is able to utilise the capacities of human cognition, even with head injury patients with short term memory loss or infants with cerebral palsy, is because the method develops attention — both in selecting the patient's field of attention as well as expanding their ability to attend to themselves. The method is able to improve people's ability to learn — not only to teach them skills. This is accomplished by working with the patient in an instructional manner, rather than attempting to correct them. The patient improves overall cognitive abilities and self-awareness by improving their capacity to make distinctions.

The capacity to make distinctions is the basis of human awareness. If we do not know one thing from another, if we cannot feel one state from another, we are left with no choice but to repeat the same pattern of dysfunctional movements again and again. Without improving the sensitivity of the patient to themselves and increasing their self-awareness, they behave like a trained animal and bypass the use of the human brain. The

patient can accomplish far more by improving their ability to make sensory distinctions that are correlated to improve motor ability. In this way the patient's own nervous system is able to find the best way possible to function. Otherwise, the patient simply receives an imposed system of usage without any felt understanding. Every patient is therefore viewed as a pupil to the Feldenkrais practitioner.

A feeling expressed by physical therapists who have taken courses in the clinical applications of the *Feldenkrais Method* is that they no longer look at the patient only in terms of primary symptoms. Instead, they understand how to explore the patient's learning style. They become excited about working with the whole person. It has been pointed out to me over the years by many physical therapists that most of what they were doing in working with patients was trying to correct impaired individuals by finding whatever procedure, from whatever school of thought, seemed to enable some improvement of function.

For example, when a therapist mobilises a patient's spine, far more occurs than a simple movement of a joint. The patient's nervous system responds to the touch and to the movement and records it as a piece of potentially useful information. After taking courses in the *Feldenkrais Method*, orthopaedic therapists realise that a measurable effect of their work is in the neurological area. And more than that, they learn how to use the contact, the directions of the movements and the pressure of the touch to teach the patient how they need to rearrange their body to avoid locking the joint in extraordinary precise ways. What a powerful thing it is for a therapist to know how to utilise this capacity of the nervous system to change and to learn, rather than treating the patient like an object that needs something to be pushed into place.

After studying the *Feldenkrais Method*, therapists working with neurological patients have expressed relief in finding a theory and set of practices that is inclusive of several contradictory theories and sets of practices they have previously learned. Many physical therapists who have taken training programmes in the *Feldenkrais Method* have revealed to me that the method provides the synthetic key in their own educations and practices. This seems to be especially true for more experienced therapists who have "done it all".

As progress continues in physical therapy, there will someday be a link established among the many diverse practices and approaches involved in working with the human body and mind. As evolutionary theory provides the missing link that enables all biological sciences to proceed, the *Feldenkrais Method* offers the theoretical and technical basis to do this for physical therapy.

(Frank Wildman, PhD, Psychology and Health Sciences, teaches courses nationwide to physical and occupational therapists in *Clinical Applications of the Feldenkrais Method*. He studied for 10 years with Dr Mashe Feldenkrais and graduated from the first *Feldenkrais Professional Training Programme* in 1977. Dr Wildman directs the *Feldenkrais Professional Training Programmes for Physiotherapists in Australia* and is Director of the *Institute for Movement Studies in Berkeley, California*. For information on *Clinical Applications* courses or Dr Wildman's audiotope series of *Feldenkrais movement lessons*, please contact the *Institute for Movement Studies, 721 The Alameda, Berkeley, California 94707. Phone (415) 524-6558.*)

THE METHOD DEVELOPS