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THE FELDENKRAIS METHOD

How movement can support plasticity and self regulation in the nervous system.

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Sometimes it happens spontaneously

In the diverse domains of therapy, as well as in training, performing, and in living in general, some people seem to develop, create and recover more easily than others. For example, after similar medical procedures, people will have very different patterns of rehabilitation. Patient A will go back to his home and make progress every week, if not every day and patient B will not only not-improve but will deteriorate, sometimes to the point of putting his or her life in danger. What is the difference between the two? In Feldendrais terms, all other things being equal, the difference in adaptation may relate to the learning ability(1).

On Health, Plasticity and Learning

In the Feldenkrais approach (2,3), health is not considered as a static balance but as an ability to recover. The wider the range of possible recoveries, the better the health. Furthermore, what distinguishes person A from person B in their recovery process is the strategy they use to learn what they need. The Feldenkrais method can be described as "strategic", in the sense that it addresses itself to the way that people organize themselves. Our strategies produce the results we get. The Feldenkrais practitioner creates concrete learning situations whereby the person discovers options in their ways of producing their behaviour. It is not a method teaching "the correct way" to move. It is not a mechanicalintervention on someone's system. It is rather a learning approach to movement that allows "guided discovery". People are solicited in their ability to learn, improve and do something for themselves. From that point of view, Feldenkrais lessons clinically support the plasticity of the nervous system. Plasticity (4), a current theme in neurology, identifies the ability of the brain, the nervous system and the living system in general to attain the same intention, in many different ways. For example, at an early enough age, loss of specific cerebral areas may slow down the development but other areas eventually take over and the functions are exercised otherwise, through another path. Furthermore, as can be confirmed with deafness, muteness and blindness, specific functions like speaking, writing and reading are not tied to a specific organ like the mouth, hand, and eyes. One can read through touch, and talk through hands. Even our specific organs seem to have plasticity: in people who had thalidomide, feet are used "like hands". Persons who have had surgical removal of portions of their intestine may find that adjacent tissue will very quickly start to perform the function of the removed portion. In other words our whole living system has a wonderful potential for plasticity, for adaptation.

For this plasticity to be manifested we need to let go of habits; previously developed ways of doing were helpful but we can also add new options on the road to learning. Letting go of our attachment to a certain way of doing may require some grieving. Some emotional support may be necessary in that process. In rehabilitation, as in all learning, the person has to have an interest, a willingness to move on. But psychologically, we can also expect that as we discover the possibility of options, we may also recover in vitality.

Principles for Sensory-Motor Learning

What the Feldenkrais method proposes is a concrete sensory-motor process that supports plasticity. Feldenkrais practitioners like to say that their work is not about therapy but about education. It is education through movement, through the kinaesthetic sense. If I do not know how to lift my arm in a certain way, how can I learn this ability, relying on my capacity to feel, sense and think by myself? If a patient has pain in the spine, how can he or she learn to move in a way that will not evoke the pain and nevertheless go on with the functions of his or her life? How can an elderly person learn to stand from a chair in a comfortable, safe way? How can a violin player learn to sit and play in a way that his neck will be free and participate freely in the music? How can the child who was deprived from air in the birth process learn, nevertheless, to crawl? How can a tennis player serve efficiently and maintain the integrity of his shoulder? There is something in common to all these questions.

Within the Feldenkrais method, different principles are embedded, allowing a learning of motor skills in accordance with the rules of development of our nervous system. In Feldenkrais terms it is often referred to as "organic learning"; the way the organism learns spontaneously. Most of our sensory-motor abilities are learned in our prime age through a very specific process. Why should sensory-motor learning be done differently at any age? To re-establish our organic ability to learn, a certain number of conditions are necessary. First, the effort and the speed are reduced in order to augment our kinaesthetic sensitivity (the Weber-Fechner lawns in psycho-physics states certain ratios of differentiation according to each sense). Effort and speed by-pass our ability to feel a difference. Any learning relies on our ability to feel a difference. "Good lessons" in any domain will respect the capacity of a nervous system to perceive these differences. In many Feldenkrais lessons, the learning is first done, lying down on the floor, or with maximum support to minimize the effect of gravity. This relieves a lot of the activity of the nervous system which is mobilized to a high percentage of its capacity when dealing with gravity, spatial orientation etc. In organic learning, specific skills are built from preliminary skills. In computer programming, a programme is composed of a set of functions and specific functions are built through the cumulation of operations. By analogy, movement patterns and behaviour patterns need to be built precisely and rigorously from previously developed patterns. Also in the Feldenkrais method, unhabitual movements and configurations are used to increase awareness. Thus a student cannot refer to "mechanically" encoded patterns. Thus a student cannot refer to "mechanically" encoded patterns. He or she has to approach movement in a novel way. Overal, the person is guided through a process of "differentiation" and "functional integration" where every body part, and all aspects of the person (this "wholistic" view includes the thinking, the sensing and the feeling aspects) are harmonized in action, to the service of an intention to act in the environment. This intentional aspect of movement is crucial in the organic way of learning. Most of the baby's movements are discovered because he or she wants to see, touch, taste etc. Randomly discovered movements will be kept if they are functionally relevant. Children learn to speak a language not by practicing grammar and vocabulary but by wanting to say something, get something, communicate. Feldenkrais "organic" learning is thus done in context, with meaning. The person's intentional cortex is mobilized in learning movement. Movement patterns are not taught mechanically or analytically. The person is pedagogically guided in the discovery of the patterns that will match the intentions.

The Case of Paul

Let us take as an example, a person named Paul, aged 55, who has had a slight stroke and who is just our of the hospital. Paul's walking is very hesitant. He nees the support of a cane. His whole left side does not respond to his intentions in a harmonious way. A Feldenkrais practitioner, after observing Paul coming in, may ask him to lie down on a low table and will proceed over one, two or more lessons, to present to Paul, through words and through touch, a variety of sensory-motor learning experiences. For example, he may sensorially show to Paul how his better side is organized, to bring to his awareness, the quality he is looking for. Then, through gentle touch, and slowly repeated movements, the practitioner may use a board under Paul's lef foot, to remind him of the experience of standing, though he is lying on his back still. Using his hands, the practitioner may touch slowly and lightly parts of Paul's left side, to help him feel his "new" body image. This kinaesthetic differentiation could then be "functionally integrated" through a push from the sole of the food, feeling the transport of the push up to the head. Slight movements of the head may be explored to make sure the orientation and organization of the neck and of the eyes allow Paul to take his full weight, more and more comfortably on his left leg. Thus, alternation of weight bearing from right to left, including the role of the pelvis, can lead to walking. And lessons can thus go on, to sitting, to standing, building the basis, refining the preliminary components to eventually bring the person to walking, with and without aid, when and if possible and necessary. All of this will not be done by "drilling" patterns through repetition or understanding through analysis, but by allowing these patterns to emerge from the person's somatic experience.

The Case of Lucy

Another example, Lucy, had a removal of a lumbar disc and spinal fusion eight years ago. Lucy has still a lot of lumbar back pain but no evidence of organic damage. Medically nothing can be done other than medication and traditional exercise programmes bring very little improvement. A Feldenkrais practitioner workng with Lucy may realize that in fact, Lucy is using all of her torse as an undifferentiated mass. Her breathing is shallow and held in inspiration. Whether Lucy was "doing" this behaviour before the operation is unknown but looking at this strategically, obviously, anyone holding their spine and chest as rigidly as she is, is bound to feel pain sooner or later, somewhere, and often in the most solicited areas. (Restriction of movement also seems to play an important role in the development of adhesions after surgery). Thinking in this fashion, a Feldenkrais practitioner may begin with Lucy a series of private and collective lessons. Some of the lessons may be done privately, where the hands of the practitioner are used to communicate with Lucy. Lessons can also be done in a group setting where many students come to explore their movement possibilities under the verbal guidance of the practitioner. Over the lessons, Lucy may sensorially discover that she can move some parts of her chest. Maybe she discovers a possibility to breather more from her abdomen and/or rib cage. What is the effect of these options on her sensations of pain? Lucy may be guided through a whole range of movements, rolling, bending, pushing, twisting etc. with the repeated instruction to do everything lightly, without imagination. Dealing with movement patterns rather than with mechanical aspects, Feldenkrais lessons need very little physical displacement. In fact, the lighter the better since it is the patterns that we are primarily interested in. Speed, amplitude and strength can be added progressively, without hurting or stretching or forcing. Through such a learning approach, Lucy may find movement qualities and options that she had completely removed from her repertory.

Moving a little bit more from the centre of her chest and sternum, allowing her breath to release, experiencing her ability to flex, extend, twist in as many options as her system can comfortably allow (and this seems like an open-ended quantity!), Lucy may relieve some of the chronic contractures. Exploring gently the possibility of movement of her proximal parts, she may begin to find variations in the pain signals. If all the musculo-skeletal parts and all the skeletal joints participate equally, or should we say proportionally, in the execution of her movements, the stress on one specific area is reduced. Through systematic exploration of her movement possibilities, through awareness Lucy may begin to untie some of her chronic holding patterns. Changing her behaviour, she may begin to change the sensorial feedback she receives. She may also begin to behave differently socially. But this is another question, or is it?

Feldenkrais scenarios like this could be developed for many cases in the domains of health, arts, sports, physical education. The Feldenkrais method is used for rehabilitation purposes, neurological disorders (5), pain relief, anxiety etc. Since it is not a medical practice but an educational process, it has also and perhaps foremost applications in prevention, relaxation, stress management, pregnancy, geriatrics, athletics training and recovery, artistic performance and sensory-motor development in general.

Tailored Experiments in Self-Regulation

What the Feldenkrais practitioner will actually do with any given person seen privately is not specifically predictable because all persons are different and present a personal profile. But through the tailoring of lessons to students' needs the Feldenkrais results are systematically replicable. The thinking process is rigorous and the mthod relies on experimental procedures, that relate to the experience of the learner. As with any experiential learning, what happens to the person is somewhat difficult to describe in words. It is much easier to have the experience of a Feldenkrais lesson to appreciate its relevance and process. But the methodology is strictly scientific, based on observation, hypotehsis, experimentation and results analysis. Moshe Feldenkrais was an engineer and nuclear physicist. His method grew from a training and practice of hard sciences. He appreciated theories by the results that they could produce. One of his exceptional qualities was to use scientific knowledge in its concrete applications. He also made discoveries that sciences are now acknowledging. For example, it is a contemporary theme in biological science that living systems have an ability to self-regulate (6). As human beings we can sense, feel, think and act by ourselves and it is on the basis of that ability that we can grow, heal and survive. The Feldenkrais method is in this new field of science called "somatics" (7) or "somatology", where the word "soma" does not refer to the body as an object animated by a "psyche", but rather the soma is the living being, as in the Greek root. This is the domain of the phenomenology of the living body, where the observer is the subject of its own research. How can we approach scientifically the subjective experience of being alive and what method can we use to support this process of inner development? We desperately need scientifically sound methods that will not reduce our subjective experience to the point of view of an outside observer. In working with people as professionals in therapy and learning, we need to stimulate this potential of the person to self-regulate at least as a complement to whatever direct intervention we can do "on" the person's body. The Feldenkrais method offers a theory and a method through movement, to first know ourselves better somatically and "learn a way of leaning" that brings to us and our patients and students options that produce less pain signals, options that allow us to re-habilitate, options that serve better our intentions in performing and doing.

Some of us do it more spontaneously than others, but all of us can improve in our ability to use ourselves and in working with others.

"Learn ease and grace of movement : it is more important than you think". (Moshe Feldenkrais, 1903-1983.)

Notes and References

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