

A version of this article was published in "Psychology Quebec"
Publication in the Order of Psychologist of Quebec in May of 2006

**The image of the body and awareness of oneself:
The somatic education in the field of psychology
@2006 by Yvan Joly M.A. (Psychology)**

Image of the body and "Image of the body"

Which of these two images seems to you the most revealing of the image of the body, of the image of your body: when you move in your daily life in a sports-gesture, or still that of a handshake; which image is it that you choose: the image of the body-object, or the truly lived body?

The image of the body-object is that, which we see, what we may measure, photograph, draw from the outside standpoint, like in the graphic of Leonardo da Vinci, a representation of the ideal proportions of the human form inspired by the Greek architect Vitruvius. This "external" image also calls on a body image conveyed culturally, an "ideal" of an idea. This "ideal" is also an universe of a possible biomechanics and for some, mostly of a social design, an attractor and an image to which we like to comply with

But the body's image is also one's own feeling in the intimate experience of the body at the motor-sense's design, kinesthetic and proprioceptive. In this respect the representation of Picasso's "The Acrobat" is without a doubt closer to the "reality" of the body shown on the realistic and geometric graphic of Leonardo. As a matter of fact we can presume that very few people have a body's image "conformed" to the reality of the physical body. In a way the physical object body proposes and ideal asymptomatical... that we intend but will we reach it ever? Indeed one can think that there lies a lifetime project

Gelly's study (1992), of people who had had hand surgery, is a subject particularly interesting because of the comparison of body-object and the body lived. The researcher identified that all availabilities for the hand-object as a well "restored-one" lie in the relationship between the hand-object and the image of the hand, and accordingly, that had also to be treated. The majority of people sense an image of their hand of 3 or 4 fingers. As a matter of fact children begin having an image of their hand as a unity, then the thumb is distinguished, from two units then three, etc. Our body image begins with its use, in the learning process through time and movement, in summary by the experience. Our image can also develop along our lives. In general, to not only take this example of the hand, only the athletes or musicians have a close representation of their physical potential. On the most part those who do not invest in the reliability of the

adequacy of their physical image with their true-life image; the difference can be more or less grand, sometimes dramatically disproportional.

We are not perhaps far from Karen Horney's definition of neurosis: in acknowledgement of our unbeknownst, we do the contrary of what we think. Or when we don't succeed to adjust our image to the images that society would like us to adopt. The neurosis would therefore also have a symptomatic base in the inadequacy of the body-image with "the image of the body"? Schilder (1968) had it already announced: the image of the body will never have a complete structure; it is not static; there are always disturbances> (pg. 287).

Moshe Feldenkrais, author of a book titled "Awareness of the body" and instigator of the aforementioned method loves to say in reference to himself: **if one does not realize what one has done, then one cannot do as one wants.** Physicist and engineer, black-belt judo and accomplished athlete, Feldenkrais (1971, 1990) has developed from 1945 a rigorous method that allows an understanding of the awareness of the body. His method implies the group-work with a verbal guidance and an individual work, guided by the hands. The lessons of the Feldenkrais method allow for persons, who open themselves up for clarification of their body image, to rejoin more and more with both of their images of the living body and the image of the objective body, a sort of synthesis between Picasso and Leonardo Da Vinci. This path of construction and reconciliation of body image is a project one desires to get involved for personal, artistically, sports, educational reasons, or for therapeutic benefits within the psychology domain, or physical, health reasons, readapting, for preventive. This is my practice field and the investigation for more than thirty years.

FLASHBACK: "Artificial" intelligence?

On the contrary, my interest for the body image goes back to the seventies. I had just finished an investigation essay on fundamental psychology, precisely on "Human Information Processing" and on artificial intelligence. Since then this field has been called "Cognitive Sciences". It consisted of simulating on computers the process, in which humans solve problems. **At the time we believed that the senses collected information from the "real" world and that the brain-machine received and manipulated information in a symbolic and logical way,** evidently two epistemological errors today, but at the time it stirred quite a bodily anguish.

In addition, in this type of approach centered in the studying of processes, I was fascinated by the fact in considering that the intelligence, if not all the cognition, if not all behavior was a question of strategy, that is to say, the end result of a specific kind of doing things as we learned -or not! - in the course of

development. If our ways of doing things are learned, then they are modifiable, malleable. If they don't benefit us, we just have to give us something else. Rather than working on our problems and becoming experts in our difficulties, lets become experts in the learning process, developing the potential and the resources, stimulating malleability. This *insight* will become crucial in my understanding of behavior and my practice of intervention.

First step of incorporating the verbal approach <<psycho-corporal>>

Parallel to my entrance and exit to the universe of artificial intelligence, I also had a personal need to experience multiple forms of therapies <<verbal>> then and today. Early on in the quest of sense and of <<senses>>, I was overall interested in what we called then the approaches of the psycho-corporal. Was it not Freud's affirmation that (1951, p205) <<the self is first of all a corporal self>>? To realistically be able to incorporate this method, I have discovered several methods inspired by Wilhelm Reich like the bio-energy of Alexander Lowen; also the Gestalt therapy of Fritz Perls, the <<Psycho-Motor Sstem>> of Al Pessio, the <<Body-Centered Psychotherapy>> of Josef Dellagrotte, approaches where the body in movement, the person in action, is included. Within the same breath psychotherapy is integrated. I am <<in-tergrated>>. The muscles, breath, posture and the image of body all take their place, within a systematic context, historically and experientially. The body, thought, emotions, awareness and the environment integrated. Already I am breathing better, even if I wasn't necessarily capable of understanding why!

The somatic: another paradigm for the body

Close to the psycho-corporal approaches and within the relaxation methods, of bio-feedback, martial arts, meditation and other corporal practices, there is an outstanding disciplinary field emerging: the somatic. **The somatic is the disciplinary field that studies the body living from the inside.** Thomas Hanna (1979, 1989) was the pioneer (see the review *Somatics* : www.somaticsed.com). By adopting the term <<soma>>, the disciplinary field of somatics will contribute to the attainment in the separation of body and spirit, psychic and the physical, the psychological and the corporal. A tenacious legate of our history that many denounce, but which adheres to identity and which is incorporated in the denomination of our profession: <<psycho-logy>>.

The term <<soma>> is the living body, the body in the true <<I>>, the body lived from within. It was the greek philosopher Hesiod who first established this definition, which was later to be taken by the pioneers of somatics. The soma is not the <<animated>> object body of a spirit, it is not a corpse, it is not the body machine visualized by instruments, lets say measured by <<objective>> machines. The soma is the life that you feel and that knows how to live, it is the integrated individual, unified. By this the somatic is essentially prominent among all the other approaches of object-body therefore to a large extent in medicine and other sciences of body-object, but also of <<psycho-somatics>>, see also the <<psycho-locomotion>> which evokes within their expression the diminution of dualism.

The soma identifies the place of life, <<the recipient>> of sensations, of emotions, of movement, thoughts. The soma is also the base of identity, of subjectivity; beyond doubt of inter-subjectivity, otherwise in the same site of knowledge, of comprehension –as some say the construction- of our environment and the universe with which we are in continuity.

The somatic turn of cognitive sciences

<<Science has separated the intelligence of life from the corporal history of the autonomous individual. It has reached an impasse>> (Kyrrou et Joignet, 1993, p.132).

Since 1990, particularly since the methods of visualization of the function allows us to witness the brain in action, the cognitive sciences also go through a transformation: they distance themselves from the manipulation of symbols and approach an incorporation, the embodiment and inscribing the living organism and reflect on the environment (Rosenfield, 1993). In fact even in the construction of robots, it is the incorporated cognitive model, which is more and more imposed. (Sender, 2003). The robots are now programmed to learn from their experience and to build a representation of their environment in action, within their inter-action. It is a world in reverse: rather than modeling humans with machines like in the 70's, we are modeling machines on humans. Finally we are realizing that the strategies of the living perhaps offer the most sophisticated guides!

In this flow of current which is named by some as <<embodied cognition>> or <<cognition in situ>> (Clark, A., 1997; Maturana and Varela, 1994; Feinberg, 2001; Ledoux, 2003 ; Kirshner and Whitson, 1997), it is manifested that all activity of knowledge, even our most abstract thoughts, spiritual, <<psychological>> are today recognizable within the activation of the brain and in the total organism

situated in its context, in its own environment. <<The evolution has formed a brain whose function represents the organism and indirectly represents everything with which the organism interacts (Damasio, 1999a, p.117). <<The image of the body is the brain's frame of reference and every other experience emerging from this frame of reference (...). The only image which the brain can reference itself is that of the body>> (Rosenfield 1996, p.49). Therefore, the <<things>> of spirit are recognized as brain activities. The psyche does not oppose the somatic but rather comes in resonance with it. We can have the psychological without the somatic>> (Varela, 1995, p.22).

In addition, if we cease to separate the body into systems and separate pieces – the cutting of pieces is certain a way of distancing oneself from the living! – We rapidly realize that the brain develops and functions essentially in relation to the complete body. <<The loop sensor-motor is the basis of self configuration of what is taking place within the brain>> (Varela, 1995 p.22). In addition, there is no perception without action; there is no action without perception (Berthoz 2003). Here other dualisms are found fault, the body-brain and the perception-action.

For instance, memory itself is an event of the organism and it is not only situated in a certain part of the brain. The memory references itself as experienced in the image of the body that it is part of what it has recalled (Rosenfield, 1996, p.41, Rosenfield 1998). Other examples, an imagined sports movement, a worrisome thought, an ethical question, a recollection, are not psychological events and <<readable>> only in the brain. Thought, emotions, sensations and abstraction are experienced in the muscle structure, in the cardiac rhythm, in breathing, in the posture and the same in the exterior, the body manifests some movements within its space. To think that the mind is a <<psychological>> event, separate from the body is an epistemological mistake (c.f. Damasio, 1995 : Descartes' mistake) that contemporary history can no longer justify other than by historical <<reasons>>. <<All brain activity is accompanied and expressed by movement>> (Berthoz, 1998 p.68). Life itself without the implication of movement from the entire body is unconceivable.

Several philosophers have well expressed in response to this question:

<<There is nothing in our intelligence which has not gone through our senses>>
(Aristotle, quote by Van Ingen, 2005).

<<Without movement, sensations would only be one view of the mind>>

(Condillac, quoted also by Van Ingen, 2005)
<<The hand is a visible part of the brain>>
(Kant, quote by Gelly, 1992).
<<L'esprit humain ne recoit les corps extérieurs comme existant en acte que par les idées des affections de son propre corps>>
(Spinoza, quote by Daasio in Poster-Vinay, 2003, p. 72)

<<The spirit is not one that descends in my body but rather one that emerges from it. >>
(Merleau-Ponty. 1945 p. 127).

Science taking a subject's consciousness as object

Awareness as a living phenomenon has become today an object of respectable study for the sciences, particularly cognitive sciences, which are at the borderline with others (!) of neurology, cybernetic, linguistic, philosophy of mind, psychology, spirituality and biology. How does the living system build an identity, a sense of itself? What does this <<self>> wait upon? How does this living system ensure its self-regulation, the continuity within time and its identity within the multiple stages of awareness?

Several contemporary researchers (Lachapelle 2004, Bermudez et al. 1995, Maturana and Varela 1994, Damasio 1999a) have pointed out in the same direction: awareness is an emerging phenomenon of brain activity, an adaptive manifestation of the living and sensible body functioning as a whole to survive in the environment.

Here are some examples

<<The reference of self is not a hypothetical idea but part of a valid structure of the awareness itself>> (Rosenfield, 1996. p.56)
<<We can close our eyes and put to rest the visual system, but we can never withdraw from our bodies>> (Zimmer, 2006, p.88)
<<Awareness exists because it comes from a living organism, with a body and a brain capable of representing the body >> (Damasio, 2001, p.46)
<<The emergence of a certain sense of the self favors the grasp of consciousness (awareness), which clearly presents an advantage for the survival in evolution >> (Damasio, 1999a).
<<Awareness would not exist (consequently the lack of perception) without the brain's usage of bodily movements as the base of an integration of sensory experience>> (Rosenfield, 1993, p.148-149)

These milestones form the beginning of a theoretical frame, which establishes the importance of soma and movement within the body awareness and the

awareness of self. Forms of intervention, remained to be found, raising from that discovery, will allow to affect our behavior and will improve our embodiment.

The somatic education towards a full development of body image

In my education as a researcher of cognitive sciences I deeply value the given interest in the learning process and behavioral fluidity. I found again the same interest when revisiting, in certain somatic methods, particularly those which are identified as somatic educational methods (see www.education-somatique.ca). From my experience I've come to know many but one that particularly comes to mind is the method of <<Awareness in movement>> and <<Functional Intergration>> developed by Moshe Feldenkrais (www.feldenkrais.qc.ca, www.feldenkrais.com).

Somatic education is the disciplinary field of a variety of methods; its objectivity is the learning process of awareness in body movement within its environment.

These methods not only propose a unified conception of the person who is in continuity with his surroundings but also one that has a rigorous learning approach of in-corporating. The methods of somatic education are as a matter of fact, in my opinion, methods of applied cognitive sciences. Varela (1995, p.22) even emphasizes that not only do the practitioners but also the researchers of cognitive sciences become aware in their practices and develop a presence. How can one experience a lived body without having a thrusting experience in being the same lived body and not being within the same exploration?

The image of the body is fundamental in somatic education. It is considered as *work in progress*, as a potential waiting to be developed and not as a mistake to be corrected or as a condition to be treated. Somatic education, like other contemporary approaches including psychology, is fundamentally strategic and educational. By the exploratory exercises, setting situations, various suggested and unusual movements, the image of the body is reset in its development, the person is invited to mature and refine their image. There are even therapeutic benefits but to begin one needs to develop the potential of possibilities and stimulating the variations in the nervous system, concretely, in the living body movement within its space. In this project of somatic education that I have undertaken with my clients or patients, that I prefer to call <<students>> given that this is about an educational framework that we are talking about: learning about the awareness of the body, to complete and adjust the image of oneself, to develop the awareness.

Following are some examples of cases:

George is a mathematics professor. He is recovering from a cerebrovascular accident, which left consequences in his walking, in the use of his right arm, vision, self-confidence and his rather depressive mood. Is the image of himself literally amputated? How can he learn to reconstruct a functional image with who he is and what he can become without any recollections of himself, only through some photos?

Marcelle is a concert pianist on demand. She is experiencing serious back problems that were diagnosed as <<psycho-somatic>>. When asked, as she is laying on her back, to describe what she feels in her body, she abundantly speaks of her hands, they seem very, very heavy and in detail. As for the rest, nothing pointed to other than to the lumbar pain. How can we help Marcelle find a complete image of herself and to discover that the piano is not only a hand game but an expression of her wholeness?

Lucien is affected by multiple sclerosis. His deterioration is irregular but inexorably affecting his mobility and autonomy. In his room there is a picture of himself as a young Olympic gymnastic. This image of his body reminds him of possibilities. His family finds it masochistic. What step of awareness has the somatic education to offer him?

Claude is a businessman at the edge of a nervous breakdown. He is exhausted, ready to sell his business and go back to his studies. He feels trapped, unable to make a decision. Observing his breathing it is evident that he only utilizes one small percentage of his potential. How can we help him find his respiratory potential and a learning of his possibilities rather than a catharsis of his anxiety? How will he address his decision taking when he is able to improve his breathing?

From the awareness of the body to the awareness of the other.

I hope to have established that without the movement of the entire body within the environment, the brain is nothing, impossible awareness and unrealizable learning process. Furthermore, what we feel in our bodies is the base of what we can learn of others. We don't have direct access to the stages of other people but the experience of our own bodies. This is what the recent discoveries of what the <<neurons mirrors>> and the resonance system of sensor-motor (none but the neurosciences consider the importance as well as the DNA for genetics) place in evidence. (Decety 2002, 2003, 2004).

Above all, it is essential to have an awareness of one's own experience to distinguish one's actions and thoughts among others. In addition, for the comprehension of intentions, emotions, thoughts of others, we need to refer to the experience of our own body. The same basis of empathy (Berthoz, 2004) so dear to the professions of counseling, thereby somatic in the sense that empathy refers to the experience of the lived body and the capacity to distinguish its experience over the experience of the other. To summarize, empathy plays deeply in the image of the body.

Finally, the discoveries around the system of resonance show that we cannot have a resonance within us, except in gestures and experiences that we can accomplish or imagine (Decety 2003, p.84). Do we have the choice as psychologists to set aside the image of the body? Can we really economize the body awareness in the formation and development of our person, of our profession?

Ivan Joly is a registered psychologist with a former specialty in cognitive science and consultant in the psycho-social research, founder of the establishment of the field of somatic education (Feldenkrais Method). In the last 25 years, he has taught in about fifteen countries. He is a lecturer at the Dance Department of L'Université du Québec and president of the Quebec Regrouping for Somatic Education. Ivan Joly has written many articles which can be seen on the following webpage: www.yvanjoly.com.

Bibliographical references: