

Self-Imaging

It was towards the end of my second session with a slight young woman, we'll call her Lynne, with a very sore back. The curves in her back were extreme and in this session I sought for more support and continuity for her spine. When she stood after the session she seemed to stand twice, coming off the table to be upright and then, as if with a second thought, telescoping taller. Her head was more clearly above her spine and she certainly looked like she'd gained a few inches. As she walked around the room her post-FI look of pleasure seemed to turn to consternation. I asked her what was going on. She said she felt "really arrogant standing like this, like a policeman." As we talked further I asked her to go back into the sensory experience and she acknowledged that her back felt better, even stronger and yes, she did feel taller. "It's not very likely that you'll seek this state out if it reminds you of being a policeman. Is there anyone you can think of who stands tall and doesn't seem arrogant?" I asked. After some time she ventured that her Buddhist teacher had an admirable erectness without seeming arrogant. We then explored how the image of the Buddhist teacher might help to inform and guide her to become comfortable with this new sensory experience rather than the image of an arrogant policeman.

This session led us into a series of sessions that were very fruitful. Lynne came back the next time reporting that she was shocked to discover how often, when she was able to notice, she found herself collapsed. She'd played all week with the images and experiences from the last lesson and had had some relief from the back pain, but she was even more interested to talk about the impressions she was having of herself. This experience of not being able to stand tall became pivotal for her. I was not surprised to learn that she had struggled with anorexia briefly some time earlier. Our work together developed around the idea of her being able to take up more space, not only by becoming taller, but broader and fuller as well. With Lynne it was obvious that as she was able to release long-term holding in her trunk and move comfortably in more planes of action, her experienced sense of self was also expanding. Over the three-month period we worked together she had an important fight with her mother, took the risk to leave a job that she had complained about from the first session and gradually her back became less and less of an issue.

There is much more to Lynne's story, but telling it is not my purpose here. In Lynne's case a certain aspect of what we mean by the self-image becomes apparent. Lynne's experienced self is articulated directly in a way that does not always happen this early in a series of sessions, or at all. The reportable experience of the lived self is one aspect of self-image, and in terms of meaning for our students perhaps the most important.

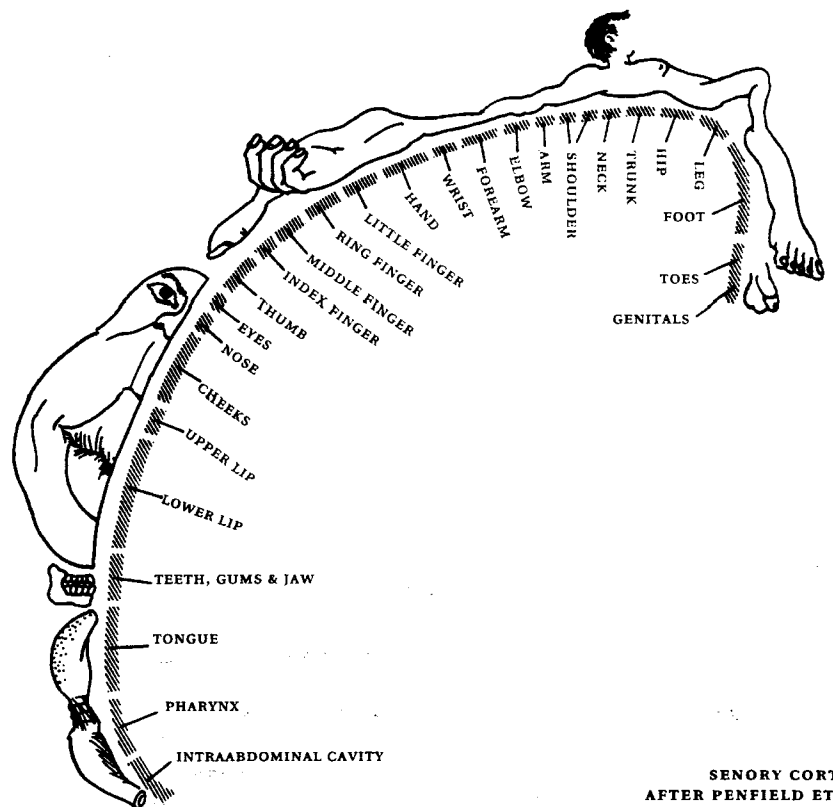
THE HOMUNCULUS AND THE SELF

"A man tends to regard his self-image as something bestowed on him by nature, although it is, in fact, the result of his own experience."

M. FELDENKRAIS, AWARENESS THROUGH MOVEMENT

When Feldenkrais practitioners talk about the self-image, the homunculus in the motor cortex is often invoked. The homunculus was first mapped by R. Penfield, in his now classic experiments done while his patients were awake during neurosurgery. He stimulated different areas of the motor cortex and the patient responded. Thus he was able to draw a peculiar topographical map of the body as expressed in the motor cortex. What is the relationship between our lived experience and this homunculus? Dr. Feldenkrais takes up the self-image in a long chapter in *Awareness Through Movement*. To open, he states that our "Self-image consists of four components that are involved in every action: movement, sensation, feeling and thought." Further he says, "We confine ourselves . . . to examining in detail the motor part of the self-image." (In fact he does not, but rather moves between the micro-discussion of the motor cortex and larger musings about society and its effect on an individual's self-image.) He introduces the idea of the homunculus in the motor cortex as ". . . a valid basis for the concept of self-image. We have no similar experimental evidence with regard to sensation, feeling or thought."

There is a homunculus in both the sensory and the motor cortex. Although these names imply differently, both are involved with sensing and with moving, but each, respective to its title, emphasizes one over the



SENSORY CORTEX.
AFTER PENFIELD ET AL.

other. Today we know that these mappings are consistent among Homo sapiens all over the world. Perhaps you've seen the images of the little man (Why is he always a he?) with the big thumb and big lips. This is not a very accurate image as actually, in the mapping, the body is not quite so neatly organized (see figure) with the thumb near the neck and the genitals near the feet, but the hand and mouth do occupy a disproportionate amount of space.

The fact that mapping of body parts was the same in the motor and sensory cortexes, in people across cultures, was taken as a compelling argument for the static and stable organization of these cortexes. It was therefore assumed by large parts of the scientific community that the adult motor and sensory cortex was functionally static. While Moshe was alive, I am aware of no scientific evidence for plasticity in the two cortexes. However, here Moshe was ahead of his time as he repeatedly stated that he thought the motor cortex changed based on our experiences through life. This was neatly demonstrated in 1991 by experiments done by J.H. Kaas with adult monkeys. This research showed that the soma-to-sensory cortex underwent demonstrable reorganization in response to functional changes. The particular monkeys used had sharply defined differences between their fingers that were experimentally observable in the sensory cortex. Within a short period of time after the two fingers were sewn together, the boundary between them in the sensory cortex disappeared. When the fingers were again separated, after a few weeks it was reestablished. This work clearly showed that the organization of the sensory cortex could change in an adult primate, and within a time frame that seemed surprisingly fast to the scientific community. Another interesting aspect of this research showed that the mappings varied between individuals, which had not been shown before, presumably based on the individual monkey's varying histories in regard to the functioning of hands. In the experiment most relevant in terms of learning, the researchers taught monkeys a task involving increased sensitivity in the tips of the fingers. Again, this showed up in the organization of the sensory cortex. This work is part of a growing body of evidence for adult brain plasticity. Moshe's statements about the plasticity of the self-image in the motor and sensory cortex have thus been well born out by current research.

Many of the proposals Moshe makes did not yet have the neurophysiology to back them up, but were observable experientially. For example, in *Awareness Through Movement*, Dr. Feldenkrais proposes a mechanism whereby changes in the motor cortex could be affecting other areas and hence the whole person. Since his proposal is based on the knowledge of the time, the proposal he makes is, in my opinion, quite inadequate. He states, "Owing to the close proximity to the motor cortex of the brain structures dealing with thought and feeling, and the tendency of the processes in the brain tissue to diffuse and spread to neighboring tissues, a drastic change in the motor cortex will have parallel affects on thinking and feeling." Keep in mind that fMRI's and PET scans (the technology that allows people to observe which parts of the brain are involved in an action while it is going on), did not exist while Dr. Feldenkrais was alive. The mechanisms he proposes here, proximity and diffusion, are not really adequate given what we now know about how the nervous system functions; however, his conclusions stand the test of time very well. What we can see from brain imaging techniques is how much of the brain is involved in movement; in fact, the motor and sensory cortexes are only a small part of the overall

areas that are active in complex movement. Areas of the brain involved with thinking, feeling and sensing are not affected passively (for example through diffusion) when we move; they are integral to the organization of movement. In addition, the work of A. Damasio (1995) has shown how the areas of the brain related to thinking and feeling are intimately connected such that we don't do one without the other. Thus, current research supports Dr. Feldenkrais's idea that moving, sensing, thinking and feeling are part of every action, but they do not necessarily support the mechanisms he proposed. Movement is thinking, feeling and sensing. It's not that one affects another—they are each, to a greater or smaller extent, an integral part of every action.

THE SELF IS NOT A THING

"In reality our self-image is never static. It changes from action to action..."

M. FELDENKRAIS, AWARENESS THROUGH MOVEMENT

About 15 years ago I took a radical turn in my ideas about the Self, in the Method and in life. I first met Dr. Heinz von Foerster when he came to present to the San Francisco training in 1977. Dr. von Foerster is a contemporary of Dr. Feldenkrais, and a strong proponent of systemic approaches to understanding human cognition. About 10 years later I was fortunate enough to meet him again and he became a kind of mentor for me. At that time I was teaching an ATM class and I was having difficulty with one of the students. She seemed to be going through the series collecting ideas about herself to such an extent that it was becoming cumbersome. Students experience all kinds of interesting differences in ATM—noticing that one shoulder is more forward, or one leg turns out more—but most of them notice and move one. She was adding up all these "insights" in a way that was hindering rather than helping her learning; she had to catalog and compare them all in each scan. I asked Heinz about it. It was a question about awareness: "How was it that the simple process of scanning was experienced in such a different fashion by the members of the class, and her in particular? What do you think was going on?" "Well," he said energetically as is his style, "this is clearly an epistemological problem. She thinks the Self is a collection of attributes and she is collecting them. The Self should not be a noun, but a process: selfing."

A light went on for me. I realized that I had the same idea. I was always trying to come up with a list of the attributes that defined me: I was generous, energetic, disorganized, whatever. The only problem was that there was always some situation in which I didn't experience myself that way and then I couldn't figure out if the attribute should be on or off the list! Perhaps mostly I was generous, but then I could always think of a moment when I wasn't. Heinz suggested that the experience of Self was situational, that we are part of a web of interactions, that affected but did not define our ongoing experience. I was selfing. What a relief.

This insight immediately affected my ATM teaching and especially my FI. If the Self is seen as a thing, then it has fixed attributes which can be acted upon. Selfing implies a dynamic process which is ongoing. As practitioners, we then participate in an active process; it may be a bit stuck, but it is nonetheless dynamic. Back in the ATM class with my "problem" student

I began teaching very one-sided lessons and worked to create different kinds of contrasts in each class. In addition I began to talk about these ideas: the Self as process and the opportunity that ATM presented to experience the plasticity of the Self. As is often the case, my “problem” student created an opportunity for me to take a leap in my understanding and it turned into a particularly rewarding ATM series.

The idea of Selfing certainly made sense to me and it turns out that recent research into the nervous system can also be interpreted in this direction. Not only are the motor and sensory cortexes malleable to experience over time, but there is even variability from one perception or action to another depending on the context. Walter Freeman, a neurologist working at UC Berkeley, studied olfactory perception in small mammals and showed how each perception is individually constructed and affected by the immediate context: such as, what was perceived immediately before, the history of the animal with that particular thing, whether the animal is hungry, etc. In other words we don't smell bananas and then have the banana smell receptors light up in recognition. Instead, there is an excitation of a group of neurons that forms a map that is recognizable as banana. But that map varies with each individual situation in which bananas are smelled. The mapping is different if we just smelled bubble gum, or if we've eaten too many bananas recently, etc. The same type of result has been shown for the motor and premotor cortexes by the work of Apostolos Georgopoulos (In Thelen and Smith, 1994). Esther Thelen writes about the work of these two researchers: “. . . representations of action (like those of perception) are encoded not in fixed structures or topographies but in populations of activities, which emerge within a specific task context.”

It may seem like a big leap from this research to the experience of Self, but what this research points to is something fundamental about how the nervous system constructs experience, which is dynamically and always situated in a particular place, time and context. The idea of the homunculus may still lure us into too static an image, as if there is a kind of creature there who is acted upon and changed. I think that current scientific research, and my own experiential research, point to a reality much more dynamic than this, and much closer to the idea of Selfing.

BACK TO LYNNE

In this article I've gone back and forth between experienced aspects of the self-image and research findings. I think it is important to know when we're talking in metaphors, when we're talking about science and when we're in the realm of experience. Research findings about the motor cortex or other elements of the brain's functioning cannot define our experience of Self. But they can stimulate or shift our thinking sometimes, in ways that can feed into our practices. The idea of Selfing and the images of ongoing constructive processes in the nervous system have directly informed me as I practice.

When Lynne first came to me I experienced her as frail and had the desire to take care of her—these feelings of mine then help to afford Lynne the experience of being frail, as she is Selfing. It's as if she were asking herself: what will I find out about myself with this person Elizabeth, what does she think of me, does she think I have the ability to improve or does she also think I'm frail and weak like I suspect? Seeing her as frail, I join in her process, which then veers in the frail direction.

Over the years I've reflected more consciously on how I experience the people I work with. Occasionally I will step back and ask myself if they are pulling me into some aspect of their trance, and am I falling for it? It's as if Lynne is saying to me, "See me as frail—that is what is familiar," and at the same time looking for another choice. In the session I described at the beginning, I was thinking about solidity, about Lynne having more skeletal support through her spine. In fact, when she stood up and reported that she felt "arrogant like a policemen" I saw a strength in her that had been hidden to me until then. It wasn't only Lynne who expanded her ideas about her Self as we worked, I also needed to be open to changing my idea of Lynne. I didn't act on, or change Lynne's self-image—her self-image is not a thing. Through the subtle, nonverbal give-and-take I participated in the active process of Selfing in which she was engaged.

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