Reprinted from
The Feldenkrais Journal
No. 19 —2006

Musings on Awareness

by Ralph Strauch

Introduction

As *Feldenkrais*® practitioners we talk a lot about awareness. We see enhancing awareness as a big part of what we do, embodied in the fact that we call what we teach "Awareness Through Movement" rather than "Movement Through Awareness." We use the term as if its meaning were unambiguous — as if it has a clear operational definition that we all understand and can use to guide our work. In fact, though, that doesn't really seem to be the case. We all understand the term in some general sense, but what it really means is harder to pin down. So even though we talk about awareness as what's important and movement as the tool we use to get there, most *Feldenkrais* teaching focuses primarily on movement — as if the desired awareness will somehow follow automatically.

Awareness Through Movement® (ATM) and *Functional Integration*® (FI) are powerful tools that can be quite effective even when applied mechanically. But they can be even more effective when their application is based on a good operational understanding of awareness, and of how the *Feldenkrais* experience can support and enhance it in our students' ongoing lives. I hope this article will enrich your understanding of awareness and how our work affects it, and suggest ways of using that understanding to make your work more effective.

I see awareness as having to do with the accessibility and use of information. I'll begin by describing my way of thinking about how we draw on the information that constantly engulfs us to compose our ongoing experience. I call that way of thinking the perceptual process paradigm. I'll then examine the role awareness plays in the quality of the experience the process produces. Finally I'll discuss the importance of communicating these kinds of ideas to our students, and describe some of the ways I do that.

Composing experience

People tend to think of experience as something that just happens — the automatic product of the events and situations in which we find ourselves and the actions we take in response. But it's more complex than that. We each compose our own experience on a moment-to-moment basis, by filtering and selecting bits of information from the rich stream in which we are constantly immersed. We combine those bits with knowledge from our past experience to create the stream of perceptual images that make up our ongoing experience.

The *Feldenkrais Method* provides tools for enhancing choice — in particular, the unconscious choices through which we compose our perceptions of and interactions with the world around us. I became interested in this way of thinking about perception before I met Moshe Feldenkrais, and that interest was what led me to study with him. The paradigm presented here grew out of my explorations of body/mind interaction through martial arts, Chinese philosophy and the writings of Carlos Castaneda, and my research as a mathematician concerned with decisionmaking and choice in the face of uncertainty. I was attracted to Moshe by the elegance of the tools he offered for exploring these questions experientially. I wrote about this paradigm in *The Reality Illusion*[1] using the language of "creating your own reality" as a central theme.

More than two decades of Feldenkrais practice have further evolved and refined my thinking. I'm languaging it differently now, around the theme of "composing experience," and I'm working on a book exploring that theme. This article draws still evolving ideas from that larger project about awareness and its place in the Feldenkrais Method.

The *perceptual process* paradigm

We are constantly engulfed in a massive stream of information, depicted below as the *perceptual stream*. This stream includes information coming in through our exterior senses — visual, auditory, tactile, etc. — as well as the proprioceptive sensation generated within the body. It passes through a *perceptual lens*, schematically representing the neurological processes that filter and select elements from the stream and compose them into the *perceptual images* that make up our current experience.

I'm using the term *image* broadly here, to encompass all forms of perceptual representation. This includes not only visual imagery, but also the auditory images we hear and the feelings of texture, mass, and pressure that result

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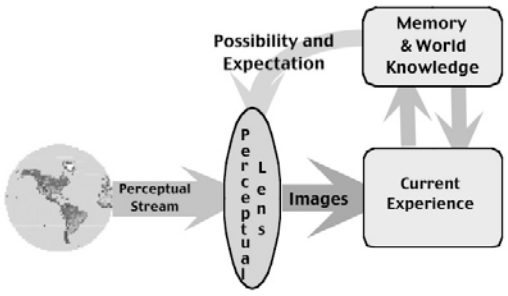
[1] *The Reality Illusion: How you make the world you experience*, by Ralph Strauch. First published by **The Theosophical Publishing House**, 1983. Currently published by **Somatic Options** and available at **www.somatic.com**.



Perceptual Process Model

from physical contact. It further includes emotional responses, our sense of our own power and capability, and other representations we make of ourselves and the world around us.

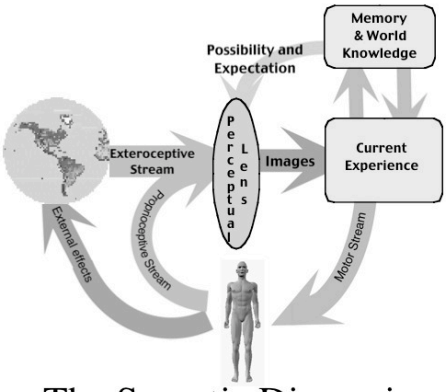
As experience occurs it is stored in *memory* for future recall, and it informs our store of *knowledge about the world*, as indicated in the upper right of the figure. These, in turn, inform the ongoing choices made in the perceptual lens. I'll refer to this basic model of perception as the *perceptual process model*.

Adding the somatic dimension

The model described above focuses on the interpretation of incoming perceptual information. But human experience involves more. You are a physical being. You live in a physical body; you move through space and you interact with the world around you. Your experience involves a variety of perceptual dimensions, including touch and pressure, your movements and positions in space, effort and resistance, your emotional responses, your sense of yourself as a capable being, or not, etc. You assess situations, make choices, and perform actions. These, in turn create changes in you and in the world, and you experience these changes through all the perceptual dimensions available to you. We can incorporate the information flows thus generated as follows.

Your central nervous system (CNS) sends a constant stream of motor commands to muscle fibers throughout your body — telling them when to contract, how strongly, and in what sequence. These motor commands implement conscious actions, such as reaching for a glass or walking across a room. They also manage ongoing background activities such as breathing, balance, digestion, circulation, and hormonal activity. This constant outflow of information is represented by the curved arrow from current experience to the body labeled *motor stream*.

Your motor stream is the summation of many different (and sometimes conflicting) motor commands. The act of walking across a room drinking a glass of water requires simultaneous control of your gait, of the movement of the glass to your mouth and the contractions necessary for swallowing, of your breathing and its synchrony with your other activities, and more.



The Somatic Dimension

Ideally, all components of your motor stream would be coherent and harmonious. That is not always the case. Your intentions may be in conflict — for example, when you have to do something that you don't want to do — so you may do something and resist it at the same time. You then produce motor commands for both conflicting activities, and you feel "pulled" between them. This type of conflict can make life difficult, and can be the source of stress and fatigue. The effort you feel in "working hard" and the counterproductive actions Moshe described as "parasitic movements" result from tension generated by motor commands in conflict with each other.

Your muscular activity feeds back into your ongoing experience in two ways — through its effects in the external world and through its effects within your body. The expanded model reflects this.

The *external effects* of your actions are indicated by the arrow on the lower left. Your actions produce change and you perceive that change through vision, hearing, physical contact, etc. You throw a ball and you see where it goes; you speak and you hear the results of your words in your conversational partner's response, you push open a door and you feel it yield to your pressure.

The internal effects of your motor stream are constantly monitored by proprioceptive sensors that measure and provide feedback about things like joint position and movement, muscle length and tension, etc. This information together with balance signals from the vestibular system and other information about internal processes makes up your *proprioceptive stream*.

What we earlier called the perceptual stream has now

been split into two components — the *exteroceptive stream* coming in from the outside world and the *proprioceptive stream* of information from within your body. The proprioceptive stream commands less attention for most people, lying largely unnoticed in the background. Yet proprioceptive information plays at least as big a role in your experience as does exteroceptive information, possibly even bigger. The volume of proprioceptive information flowing through your nervous system is probably greater than the volume of exteroceptive information. Much of this information serves to keep things running smoothly in ways that hardly rise to consciousness — to regulate your breathing, or to keep you upright in the field of gravity.

Your ongoing conscious experience is a blend of proprioceptive and exteroceptive information, a mixture of external sights, sounds, and smells, together with your internal sense of balance, movement, and body position in space. To pick up a glass of water and move it to your mouth to drink, you must integrate visual information (exteroceptive) about the position of the glass and the movements of your hands with your kinesthetic sense (proprioceptive) of your movements and of the effort required to move the glass.

Awareness

The term *awareness* is used with different meanings, generally relating to questions about the availability and use of information. One important meaning refers to the relationship between an organism and information of potential use to that organism — the relationship of *being aware of*. To say that you are aware of something means that information is available for use in composing your experience and your actions. In terms of our model, that piece of the perceptual stream is available to you. The term also refers to the faculty through which you acquire information, as in broadening your awareness to take in more of your surroundings or narrowing your awareness to focus on a particular task. The totality of information available to you at a particular time is sometimes referred to as your field of awareness. I'll also use the term *perceptual field* to refer to this totality of available information.

Your perceptual field can be broad or narrow — taking in a lot, or just a little. You can simulate a narrow visual field by curling your fingers into a tube and looking around the room through that tube. You can see everything in the room, but you can only see a little piece at any one time. Now take your hand down and allow your visual focus to soften; consciously notice more of your peripheral vision. This is what a broader visual field looks like.

This example is visual, while experience as a whole is multidimensional. Your perceptual field includes not only vision, but auditory, proprioceptive, emotional, cognitive, and other dimensions as well. These various dimensions tend to broaden or narrow in synchrony. Broadening your visual awareness allows you to notice more sounds, or to sense more of your body and movement. Conversely, narrowing one dimension will tend to narrow others as well. Thus narrowing your visual focus to "concentrate" on your computer will reduce your awareness of your body and how you organize it.

Movement as pattern

I said above that looking through the tube you could see anything in the room. That isn't really true. You can see any localized detail, and in that sense you can see the entire room. But you can't see relationships; you can't see patterns. In a room filled with people you can see each person individually, but you can't sense how they relate to each other. You can't see the group as a whole. To see patterns you need the broader field your peripheral vision provides. The perception of pattern is completely different from the perception of the pieces making up the pattern. It requires a perceptual field broad enough to encompass the entire pattern at once.

We talk about movement in terms of localized details — turning the head, lifting a leg, or extending an arm. But the way you actually move as a human being always involves your whole person. The motor stream doesn't contain isolated commands to your leg, arm, or specific muscles. It contains a flux of commands to your whole system — telling muscle fibers throughout your body what to do simultaneously. Localization is an artifact of language, a consequence of the fact that we find it easier to talk about the pieces than the pattern as a whole. How integrated and coordinated your motor control can be depends on the breadth of your perceptual field. You can only coordinate the movements of parts of your body that you are aware of simultaneously.

When you initiate an action, the motor activities which manifest that action will be integrated only within your current perceptual field. Outside that field, they may be only dimly related to your intention, or even counter productive to it. If you turn your head while narrowly focused on what you are looking at, for example, you are likely to stiffen your spine and your ribcage, and turn only in the vertebrae of your neck. With a broader perceptual field that includes your own torso as well as whatever you are interested in externally, you will be

more likely to include your spine and ribcage in the turning process. Your movement will be distributed throughout more of your body, making it easier, more fluid, and more comfortable.

Explore this yourself. Focus sharply on something across the room from you. Keeping that sharp focus, turn your head to one side. Notice how much of you moves. In particular, notice how much movement occurs in your ribcage and spine. You'll probably find that the act of sharply focusing your vision tightens your torso, and most of the turning movement occurs in your neck. Next, let go of the sharp focus. Allow your visual focus to soften, broadening your visual field. Broaden your proprioceptive field as well by noticing your breathing and feeling the support of the chair beneath you. Turn your head again, keeping this broader perceptual field as you do. Is the turning easier and more fluid? Does it involve more movement in your spine and ribcage?

Controlling an overall pattern of movement requires awareness of the pattern as a whole, which in turn requires a broad awareness[2]. Narrow awareness lies at the root of many of the problems our students present to us. The repetitive stress injury an office worker suffers from working at a computer, for example, may have roots in the way she "concentrates" on her work, narrowing her perceptual field to exclude awareness of how she uses her body. Leaning forward into the computer and stiffening her body, she focuses on the computer screen and on her fingers typing, shutting out her body's messages about the strains that posture and way of typing impose on the rest of her. The strain builds up, leading eventually to RSI.

Someone who experiences chronic back pain may focus on the world in front of him and experience himself only as a front half. With little awareness of the role his spine plays in his movement he will tend to keep it stiff and rigid, imposing greater mechanical strain than if it were more mobile. He may then attempt to shut out the resulting discomfort by further reducing his awareness of his back, exacerbating the problem. The clumsy tennis player whose game only gets worse when he "concentrates" on "doing it right" may be narrowing his perceptual field when he should be broadening it to achieve the results he seeks.

Our work invites the broader awareness needed to change these habits. The slow, gentle, repetitive movements we use in ATM invite a gradual broadening of the proprioceptive periphery, even as the instructions themselves point primarily to details. The student is encouraged to become aware of, and thus to allow, larger and more integrated patterns of movement. His motor control process gradually encompasses these larger patterns, so movement becomes easier and more fluid. Something similar happens in FI. As the practitioner shifts her attention from place to place, focusing on different parts and connections, she invites the student to take in each new connection without losing sight of the last one, This requires a broadening of awareness, gradually encompassing a larger and larger pattern of movement.

Our tools (ATM and FI) are good enough so that this happens even when practitioners apply them in a fairly mechanical manner, with a limited understanding of the mechanisms involved. The better a practitioner understands those mechanisms, though, the better she can apply the tools, and the more effective they become.

Controlling Attention

Given its disadvantages, why do we narrow awareness in the first place? How has narrow focus become the norm in contemporary society? This happens because narrowing awareness is a way of managing attention that receives a lot of encouragement and support.

Not everything in your perceptual field is of equal interest. *Attention* is the faculty that you use to focus on what is important, to separate that from the background that matters less. Right now you're probably attending more to what you're reading than to other things going on around you, or within you. If something important occurs, though, if the phone rings, if there's a loud noise nearby, or if the gradual filling of your bladder passes the threshold of discomfort, your attention will be drawn away from reading and toward that new stimulus.

William Shakespeare wrote that "All the world's a stage. And all the men and women merely players." Within this metaphor, we can think of *awareness* as *how you light the stage*, and *attention* as *where on the stage you look*. Managing attention is critical to functioning in the world. You need to attend to what matters and let the less important stuff fade into the background. To successfully cross the street, you must attend to the traffic; otherwise you may not survive. You can safely ignore the displays in store windows.

Narrowing awareness to a small cone around the focus of attention is common way of managing attention. This is akin to a stage director, in Shakespeare's metaphor, managing the audience's attention by lighting the stage with a spotlight aimed where he wants them to

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[2] This idea is discussed from a different perspective in my article "Training the Whole Person," (1984). This and other referenced articles are available at **www.somatic.com/articles.html**.

look, leaving the rest of the stage in darkness.

Think of the photo of a fruit stand above as representing the entire stage — the totality of information available to you at a given moment. The photo below represents what you actually take in when you narrow your awareness to focus attention — in this case on the oranges in the center of the picture. The narrowing cuts much of the information and severely attenuates what remains.

Narrow awareness as a cultural pathology

The practice of narrowing awareness to control attention is strongly conditioned by contemporary society. People do it habitually and continually, never realizing that there's an alternative. This keeps us in business as Feldenkrais Teachers. If broader and more open awareness were the norm there would be no need for us. This generalized tunnel vision is one of the major pathologies of civilization. A number of independent factors converge to to support this pathology — a "perfect storm," to use a currently popular metaphor.

When I was a kid, early reading provided tunnel vision training, encouraging focus on a small visual area to the exclusion of everything else. Now technology has advanced and we have better tunnel vision trainers — TV, electronic games, and computers. These reinforce the lesson that what really matters is contained an a small visual arc. What lies outside that arc can and should be ignored. We were taught in school to block out distractions and "concentrate" on the task at hand, further reinforcing our learned tunnel vision.

Remember what it was like to be six years old. You knew at six, though you couldn't articulate it intellectually, that sitting still was an unnatural act. So they put you in a room with a bunch of other six-year-olds and an adult authority figure who told you "Sit still, don't squirm, don't look out the window, and raise your hand if you want to go to the bathroom!" That urge to squirm was your awareness that sitting still is an unnatural act attempting to get your attention. Part of what you were learning, then, was not to listen to that internal awareness but to block it out in favor of what external authority was telling you. That wasn't your first such lesson, and it certainly wasn't your last, but it is a clear example of the cultural conditioning against awareness.

Narrowing of awareness is also an integral part of the flight/fight response, the body's natural biological response to threat. It serves to quickly focus attention on an immediate threat, but it should reverse itself as the threat is dealt with. The reversal is less automatic than the initial narrowing, though, and contemporary threats tend to be chronic rather than acute. Both these factors encourage the narrowing to become chronic as well.[3]

We evolved in a natural environment filled with predators and other hazards — dangers necessitating a broad awareness. But these dangers are largely absent in contemporary life, allowing us to survive with an unawareness that would have been fatal to our ancestors. Civilization has created benign conditions where narrowed awareness does not immediately impact survival, and ignoring its more insidious impact on the quality of life is unfortunately all too easy.

Emotional traumas, large and small, also encourage and support perceptual narrowing — particularly in the proprioceptive dimension. Emotional experience

[3] See also my article "Tigers and Tunnel Vision: Is our biological adaptation to stress maladaptive in an urban society?" (1985).

manifests somatically through changes in neuromuscular organization, ripples through the musculature, so to speak. Experiences that are too strong get shut down by tensing against them to block those ripples. That tension blocks awareness, and that blockage can become habitual and chronic.[4]

The spectrum of awareness

Tunnel vision lies at one end of a spectrum. At the other end is a broad open focus that encompasses and gives you access to much more of your surroundings, internal as well as external. A broader awareness in one dimension will encourage broader awareness in others as well. Soft visual focus and broad peripheral vision go along with more sensitive hearing and somatic awareness, and even with broader conceptual problem-solving.

The breadth of awareness that people bring to their lives ranges from very narrow to very broad. At the extreme narrow end, perhaps, is someone so sharply focused that he's liable to trip over his own shoelaces as he walks across the room. Nearer the broad end is the martial arts master responding to a multi-man attack, maintaining awareness of all attackers while continuously refocusing his attention to deal with the most pressing current threat, or the top basketball player, perceiving and responding to the flow of the game around him. One of my favorite examples is a Chinese acrobat I once saw, riding around the stage on a bicycle, pedaling with one foot and twirling a hula hoop with the other, juggling torches and knives with one hand and spinning a plate at the end of a stick with the other, while balancing a ball on his forehead. Even masters like these, though, may not be the far end of the spectrum.

Teaching greater awareness

Most people won't ever get close to that end of that spectrum, but everyone can benefit from moving in that direction. We have the means to help our students with that, but to do it well we must go beyond ATM and FI per se, to enhance our students' understanding of the value of greater awareness in life and to support its integration into the rest of their lives.

ATM and FI can provide experiences of greater awareness. These experiences will, to some extent, generalize without further support, but there's a strong tendency, as the student leaves a lesson and returns to the "real world," to move back toward habitual ways of being and to return to habitual perceptual narrowness.

I received an important lesson about this early in my practice. I gave an FI to a man who was extremely tight and narrow in his everyday life. He responded to the lesson beautifully — softening, opening, and finding freedom in his movement that was wonderful to observe. The being who got off the table at the end of the lesson was totally different from the one who had lain down an hour earlier. Then he picked up his wallet and put it in his pocket, tightening a bit as he did so. He continued preparing to leave — pocketing his change and keys, threading his belt through his belt loops, putting on his glasses and his shoes and socks. With each step he lost some of what he had gained, gradually re-inhabiting the persona he had brought to the lesson. He left my office with a nice experience that he definitely wanted to repeat, but he carried very little of that experience out into the rest of his life.

Some argue that what the student experiences in the lesson will "take" by itself, that once the information is available the nervous system will automatically choose the best way of functioning. That sounds good but the reality is more complex. The nervous system's choices are influenced by a lifetime of habitual experience. That experience often says that a tight narrow focus and a lot of tension are necessary to get things done — that the softer more open way of being is a great way to relax at the end of the day, but not a way of being that will work in the cold hard world "out there." The lesson alone won't change that belief; change will require a conceptual re-education as well.

I sometimes tell students there's nothing we can do on my FI table that they can't undo by the the time they get home — maybe even by the time they get out to their car, if they really work at it. If they think that the lesson is something they got from me, and think that now it's time to go back to the "real world," they can easily shift back into more familiar ways of being and the change will drift away. I ask them to think instead about what they experience from the lesson as a different way of being — a possibility that was there all the time, that they don't normally access but can learn to access with practice. It can be something that will change their life, but that will require action on their part.

In talking with students about awareness and the value of developing it in themselves, I look for language that's appropriate to each student's experience and way of thinking about the world. I might talk with a basketball player about taking in more of the flow of the game, with a cop about awareness of potential threats, or with a

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[4] See "Functional Integration and the Feeling Sense," **Feldenkrais Journal**, Issue 4, Winter 1989, pp 30-35, or "The Somatic Dimensions of Emotional Healing," (1993).

computer scientist about bandwidth, subroutines, and multitasking. I discuss the importance of noticing, of taking in and registering new information. I sometimes say that what really makes the work effective is the noticing — that the particular movements and manipulations are of secondary importance, there primarily to give them something to notice.

I encourage my students to become more conscious of the changes they experience in lessons, and to incorporate those changes into life. The connection between visual focus and the broader perceptual field can be useful in this. I may ask a student to notice how the room looks different after a lesson; often it is "brighter" or "bigger." I suggest that this is because she is taking in more information. I might ask her to walk with a soft visual focus and notice how that feels, then to shift to a hard focus and notice how her walking changes. She may notice that she become stiffer and more rigid. I then ask her to shift back and forth, to consolidate the experience of that relationship and to realize that she has a choice about which way of being to manifest in life.

I often point out the greater sense of support from the ground at the end of a lesson, even while lying on the table. I observe that the table hasn't changed; it still offers the same support it offered at the beginning of the lesson. What changed was the student's willingness to accept that support, due in part to a greater awareness of its presence. I then ask them to continue to notice the greater support from the ground as they get up and walk around, and to register it at different times during the day.[5]

I suggest ways of reconnecting with the changes they experienced in the lesson in everyday life, such as consciously registering the support from the ground or softening visual focus and noticing more of their peripheral vision. I point out that they can use commonly occurring events as triggers to remind them to notice — things like waiting at a red light or letting the phone ring one more time before answering it, and using that extra time to reground themselves and soften their visual focus.

I try to understand each student's life well enough to identify issues or situations that might represent particular challenges or opportunities, and to tailor my suggestions accordingly. With someone who sits at a computer much of the time, I might talk about how easy it is to lose body awareness to computer-induced tunnel vision and suggest ways of retraining habits to retain more self-awareness at the computer. With someone who spends a lot of time behind the wheel, I'll suggest different ways of organizing awareness and attention while driving. I might offer a musician suggestions about things to notice and ways to organize attention while playing.

I first became interested in broadening my own awareness at a time in my life when I frequently attended briefings and other business meetings. I found that those meetings offered wonderful opportunities to play with and explore my own awareness. I further found, to my initial surprise, that when I kept a broader focus, including greater somatic awareness, I was more present in the meeting. I was able to contribute more and to leave with a clearer sense of what had transpired than I was when I tried to focus more narrowly on the speaker and the subject at hand. When it's appropriate I talk with students about these experiences and what they might learn from them.

I'm not recommending that anyone else adopt these particular strategies, any more than I'd recommend that anyone else necessarily emulate anything else I do. It's more important, I think, that each of us come from our own authentic selves, sourcing our work in our personal understanding of what it's about. I do strongly believe, though, that our work can be improved by thinking more clearly about the nature of awareness and about the conversations about it — verbal as well as non-verbal — that we have with our clients, and by giving more attention to supporting the integration of the change into the rest of our clients' lives.

Ralph Strauch was trained by Moshe Feldenkrais and practices the *Feldenkrais Method* in Los Angeles. He has a Ph.D. in Statistics from UC Berkeley and was a Senior Mathematician at the *Rand Corporation*. Ralph has been exploring awareness since the 1960s, drawing on mathematics and martial arts as well as his Feldenkrais experience. He has written two books and numerous articles, some about his work with survivors of emotional trauma. His writings have appeared in the *Feldenkrais Journal, Somatics, Training and Development Journal, Sea Frontiers*, *Critique*, and various technical journals. He is working on a book about *Composing Experience*.

P.O. Box 194, Pacific Palisades, CA 90272
(310)454-8322
rstrauch@somatic.com
www.somatic.com

[5] This sense of support is discussed in my article "Connecting with the Earth" (1991).