

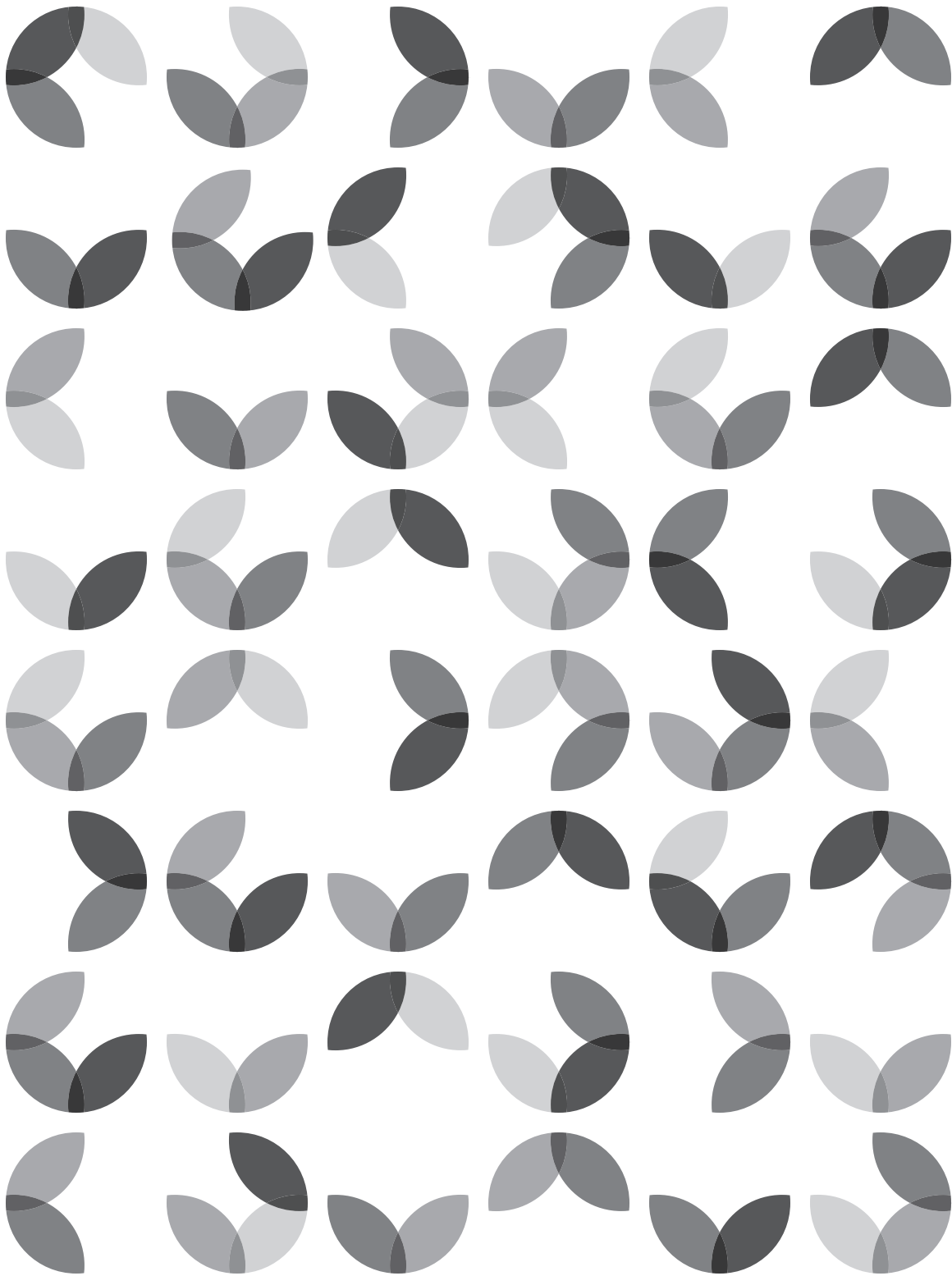
The Feldenkrais

Journal

#29
Aesthetic
Experience

2016

Online Edition



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Letter from the Editor / 2016

Last year I wrote in this space about the distinctive nature of the *Journal*: a print publication, written just for those fascinated by Feldenkrais, that only comes out once each year. I celebrated with you the wide range of wonderful articles that could be savored at our leisure and the beautiful, tangible magazine we enjoy.

And as you are reading this, you may be holding the 2016 edition of the *Journal* in your hands. Or maybe not. Because for the first time we are publishing the *Journal* in both print and electronic versions. At www.feldenkrais.com/2016-journal you can see a complete version of the print publication, plus some features that are only online.

There was no theme announced for this year's *Journal*. But you'll find that a theme emerged, as many of the articles that were submitted considered notions of beauty, art, and performance. I can't explain it, but some sort of self-organization process was operating. Articles include interviews with artists ("Voluntary and Involuntary"), an exploration of how the Method supports the work of actors ("Moments of Being"), and an interview with philosopher and Feldenkrais practitioner Richard Shusterman ("Somaesthetics and Beauty"). The Shusterman interview appears here courtesy of the German Feldenkrais journal, *Feldenkrais Zeit*. You'll find other articles that touch on aesthetic experience less explicitly: as an adjunct to healing and learning ("Review of *The Brain's Way of Healing*") and spirituality ("The Paradox of My Jewish Self-Image").

As the Assistant Editors and I discussed when and how to go online with the *Journal*, we kept coming back to one big advantage: the ability to reach a huge audience beyond our community. Many of the articles we publish are of particular interest to people working in adjacent fields, to members of the public with certain health concerns, and to experts looking for new approaches to their area of expertise. I'm so gratified that all of the work that went into this issue is now available to our membership and to the public.

In our electronic *Journal* (www.feldenkrais.com/2016-journal) you can take a link to Australian practitioner Ingrid Weisfelt's recent video about her award-winning theater production *Intimacy*, and then read her article about how the Method influenced her work on the piece. The electronic *Journal* will also be the exclusive publisher of the complete text of Franz Wurm's notes for a lecture on the Method, given in the 1970s. (Excerpts from the notes appear in the print version.) We're also publishing an in-depth response by Sheryl Field and Martha Nowycky to an article published last issue. Both the response and the original article ("Developing a Healthy Bias: Four Days with Sheryl Field") are available online.

—Anita Noone



Response to “Developing a Healthy Bias: Four Days with Sheryl Field”

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The 2015 issue of *The Feldenkrais Journal* (Vol. 28) included an article by Seth Dellinger titled “Developing a Healthy Bias: Four Days with Sheryl Field” (republished in this current issue on page 92). Field specializes in applying the Feldenkrais Method of somatic education to infants and children. The workshop Dellinger attended focused on the acquisition of fundamental patterns of movement in early development. In his wonderful article, Dellinger described his encounter with Field's work and the remarkably powerful outcomes that can be achieved quickly when the foundations of movement are addressed. This letter continues the conversation about some of the points raised in the article and clarifies the underpinnings of Field's work with both healthy children and children with developmental difficulties.

Field's work is based on the principle that a child's maturation follows a path determined by the development of the nervous system as well as the muscles and skeleton. To help a child progress, Field makes no attempt to teach actions. Instead, she reinforces the basic elements from which a child develops an entire movement repertoire.

The developmental path of the child approximately traces our human evolutionary history. The earliest movements are the most primitive and also the most basic. More differentiated and complex motor skills are built up slowly through learning and experience, but are always profoundly grounded in these foundational movements.

What are the most primitive movements?

For the answer we will have to look to the earliest stages of development *in utero*, when a fetus first begins to move. Fortunately, through “4-D ultrasound” technology, today these movements can actually be observed—something that was previously impossible.

1 Christopher Vaughan, *How Life Begins: The Science of Life in the Womb* (New York: Random House, 1996), 207.

The very first movements occur at six to seven weeks post-fertilization, when the human fetus is about a quarter of an inch long and strongly resembles the embryos of fishes, frogs, cats, and all vertebrates.¹ Eel-like, side-to-side contractions are observed flowing from head to tail. At this early stage, the contractions are produced by developing vertebral muscles connected to each other end-to-end and arranged around a long flexible rod-like structure called the notochord. A network of neurons in the spinal cord coordinates the side-to-side movements. The neuronal network, consisting of motoneurons, sensory neurons, and interneurons, is wired together in a circuit that generates wave-like patterns of movements. Through long axons that exit from the spinal cord, the motoneurons stimulate vertebral muscles to produce side-to-side movements. All vertebrate embryos exhibit such behaviors. **[Fig 1]**

By nine to 12 weeks in the womb the human fetus has all the elements of the adult vertebral column or “spine.” The notochord is replaced by the chain of vertebral bones or vertebrae. Vertebral muscles are no longer attached to each other, but instead are attached to the vertebral bones. **[Fig 2]** With these anatomical changes, as vertebral muscles pull on the vertebrae, a human fetus develops new forms of movement such as folding forward, arching, and twisting. The expanded repertoire remains under the control of the neural network in the spinal cord. Even though the embryo no longer ‘swims’ with side-to-side movements, the network provides a functional interconnection to all vertebral muscles and therefore a cohesiveness to all movements of the spine. Thanks to the neural network, the whole backbone of a child and adult is automatically integrated when it moves. While continued growth of the limbs and enlargement of the head make the arching and twisting less obvious, the underlying interconnectedness of the spine remains the basis of all vertebrate movement. **[Fig 3]**

Thus, the earliest movements of a human fetus and the foundation of all future movements are those of the vertebral column, not the limbs or appendages. In the human embryo the head, torso, and limbs grow and differentiate over the course of weeks and months. They continue to enlarge long after birth and eventually dominate the adult human form. Functionally, the limbs and the head can be considered as appendages integrated into the spine. The spine—the head-to-tail axis of the body—is the core.

The first limb movements in the fetus are mostly random. Isolated arm and leg movements are observed at eight to nine weeks, a time when the human fetus is about one inch long. A small circuit of neurons called a central pattern generator (CPG) orchestrates the groups of

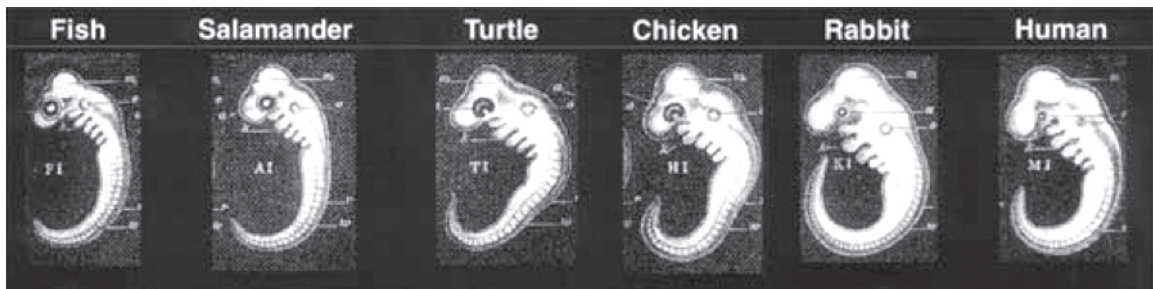


Fig 1
Very early stage embryos
illustrated by Ernst Haeckel
in his *Anthropogenie* (1874)

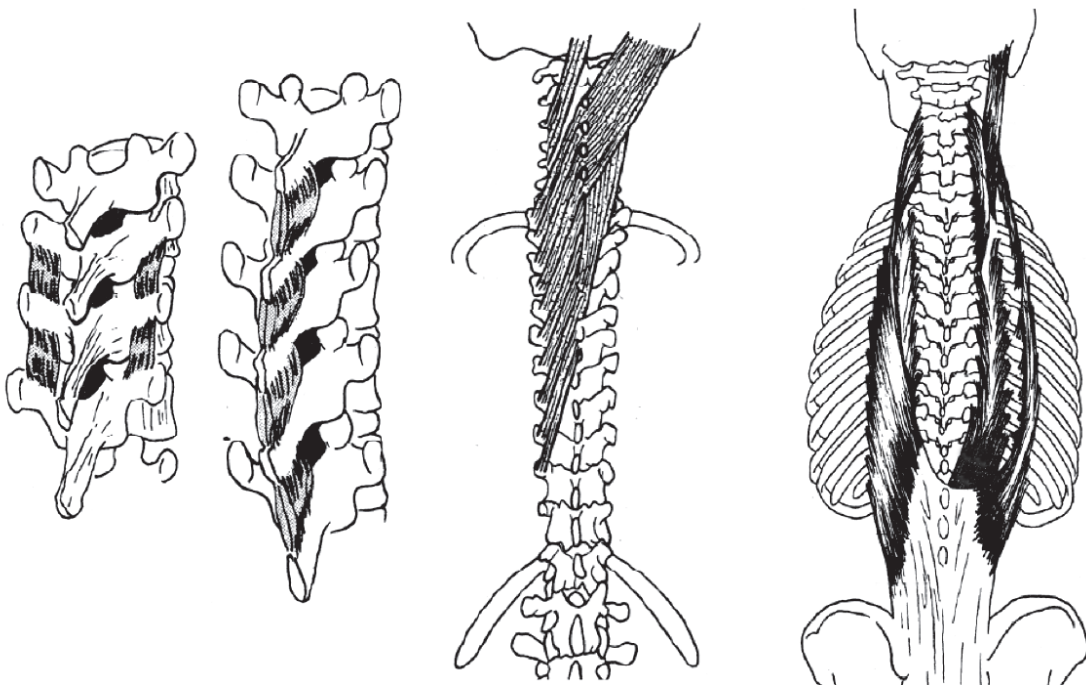


Fig 2
Diagrams of vertebral
muscles from Blandine
Calais-Germaine's *The
Anatomy of Movement*
(1993)



Fig 3
 Diagrams of eel, dogfish
 shark, and newt swimming
 movements from J.J. Gray's
Journal of Experimental
Biology (1933) and
Proceedings of the Royal
Society of London (1939)

agonist and antagonist muscles within a single limb to produce its movements. Motoneurons within the circuit contact individual muscles to actuate movements. Physically, the neurons of the CPG are located in the spinal cord, where they are in two-way communication with the neural network that controls the spine. **[Fig 4]**

The four individual limb CPGs are further interconnected with each other into a larger four-limb circuit. This circuit specifies patterns of limb use such as crawling, walking, and running. The patterns themselves do not need to be taught. However, for the locomotive patterns to be useful they must be fully integrated with the movements and function of the spine as well as all the muscles of the body.² The acquisition of mature coordination can only be gained by experience, experimentation, and learning.

A child's vertebral column is the core not only in the anatomical sense, but also as the primary agent in organizing posture and movement. The neuronal network receives the basic instructions for action from the brain. The instructions are delivered through three separate pathways carrying different information: First: '*This way is up.*' Second: '*Go in this direction.*' And third: '*It's time to move—or not.*' These fundamental instructions are hard-wired and are the primitive directives for action for all vertebrates. They too are intrinsic and do not need to be taught.

Each child begins with the basic organizational elements afforded by the neuronal network, the CPG circuits of the limbs, and the three sets of instructions to vertebral muscles. This is the starting point from which a child develops her movement repertoire. For example, the fundamental instructions for '*This way is up*' are sent from primitive parts of the brain to the neuronal network and come on-line in the uterus. At full-term birth, with all the wiring complete, the baby orients its head up almost immediately. Even if its vertebral neck muscles are initially too weak to support the head fully, they receive instructions from vestibular centers in the brain to make the attempt.

As a baby matures, she learns to incorporate and use her whole self in the service of her needs. In weight bearing, for example, all parts of the body must be coordinated. Arms and legs are engaged for the purpose of the child's more effectively achieving his or her intentions. Gravity is a critical framework for learning, as its potent influence allows the child to feel a reflex-like drive to hold the head up. The spine is the innate organizing force in the orchestration of the head, torso, and limbs in an action as complex as crawling with head held high up in front. The internal cohesion of the moving axis depends on the neuronal network that coordinates vertebral muscles. This is the foundation on which each child builds.

The developmental process has direction, but it is not directed. All babies face the same challenges and have the same task: getting themselves upright to locomote and carry out actions needed to thrive. While all children follow a similar developmental path, each child

² See work of Grillner, Ijspeert and co-workers on salamander walking—for example, Jeremie Knüsel, Andrej Bicanski, Dimitri Ryczko, Jean-Marie Cabelguen, and Auke Jan Ijspeert, "A Salamander's Flexible Spinal Network for Locomotion, Modeled at Two Levels of Abstraction," *Integrative and Comparative Biology* 53, no. 2 (June 18, 2013), 269–282.

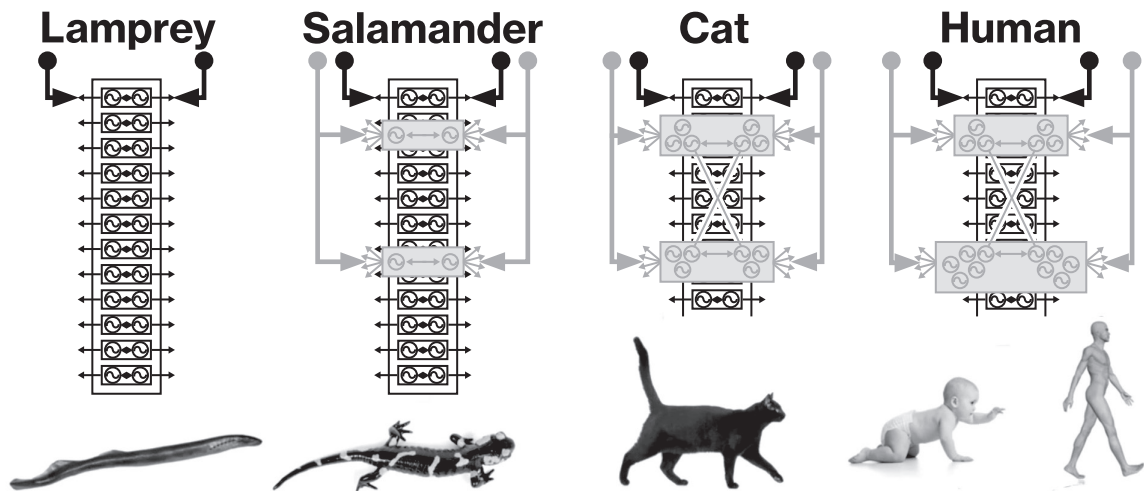


Fig 4

Central pattern generator (CPG) schematics for lamprey, salamander, cat, and human from Auke Jan Ijspeert's "A Robot that Runs and Swims like a Salamander" (2015)

Top row: Schematic of nervous system for four species. Black: A neuronal network controls the axial body muscles of lampreys and the axial vertebral muscles of salamanders, cats, and humans, shown as a series of small circuit elements interconnected to each other from head to tail. Each circuit element consists of motoneurons and interneurons. Together the network produces patterns of side-to-side contractions. At each segment, motoneurons send out commands to the vertebral muscles controlled by that level (small black arrows). Brain inputs (large black arrows) come from the

most primitive parts of the brain including vestibular centers. Gray: The central pattern generators (CPGs) of limb muscles coordinate the agonist and antagonist muscles of each limb. The circuitry becomes more complex as animals evolve limbs with more versatile movements. In higher vertebrates the four CPGs are interconnected for patterned movements called gaits (e.g. walking, galloping, hopping). Motoneurons send out commands to limb muscles (small gray arrows). Brain controls (large gray arrows) come from both primitive parts of the brain and newer areas such as the cortex.

reaches the common milestones through his or her individual efforts and means. Children experience themselves and their environment as they explore and move. Typically, they are able to absorb feedback and use it to better organize themselves. For the child whose development has been interrupted, this kind of learning—the incorporation of feedback from exploratory movements, and the development of new functionally organized patterns of action—may not happen reliably.

Children learn more slowly than most animal babies, for they have the additional opportunity and task of developing remarkably refined movements. Unlike other vertebrates, even a dog or cat, humans are endowed with an enormous cortex. The cortex first comes on-line quite late—at about 21 weeks *in utero*—and exerts ever more powerful influence and control after birth.³ Late in fetal development, the cortex begins to direct some of the movement of the distal limbs, and it continues to mature and take on a greater role through the first years of life. If the core is not working well, the cortex exerts an influence that may not be in the best interest for the development of efficient, graceful movement. For example, cortical commands may initiate muscle contractions in the hands and distal part of the arms without proper organization of the muscles anchoring the shoulder girdle into the spine.

The essence of Field's work is to assist the child's progress on his or her own developmental track. Field works with the child, strengthening and enhancing the child's innate abilities without imposing any postures, actions, or skills that the child has not yet accomplished on her own. The revolutionary aspect of Field's message is that it is possible for Feldenkrais practitioners to "listen" to a child's underlying, foundational movement patterns. The most cohesive, simplest, and most fundamental movements are those of the spine. Practitioners of the Feldenkrais Method can learn to identify intact organization, amplify it, and reflect it back so that it is broadcast to the child's nervous system. The practitioner can provide sensory information to the child. The infant's nervous system works with this feedback, refines it, and incorporates it in ways that serve the child's needs.

In his article, Dellinger described Field's work with Yaya, a seven-month-old girl who had suffered a brachial plexus injury at birth. The child arrived for the session with her arm held out from her body, slightly lifted and with the elbow bent. The arm appeared to be frozen in space, and its position impacted Yaya's posture and breathing. Over the course of an hour, Field worked with Yaya, enhancing the child's sensation of her innate axial movement. As Yaya's awareness and use of her axial movement increased, she became more dynamic in her actions, and her stiffened trunk and arm appeared to relax. Yaya, who was powerfully motivated to reach her dad, who held her favorite toys, soon succeeded in slightly extending her injured arm and grasping a rattle.

Yaya had never suffered a brain injury, and yet it seemed that her injured arm had impeded her development and frustrated her learning. With her hands, Field was defining the sensory information of Yaya's

3 Peter Kirwan, Benita Turner-Bridger, Manuel Peter, Ayiba Momoh, Devika Arambepola, Hugh P. C. Robinson, Frederick J. Livesey, "Development and function of human cerebral cortex neural networks from pluripotent stem cells *in vitro*," *Development* 142 (2015), 3178–3187.

axial movement and reinforcing it. This provided Yaya with more potent feedback from which her actions could more readily improve. She could overcome the lack of sensations due to her brachial plexus impingement. Thanks to the enhanced dynamic organization of her core, Yaya was better able to negotiate her balance and orientation without stiffening herself or her arm. Soon she was able to develop her reaching action to include bringing the rattle toward her mouth in a natural and integrated way. With additional lessons, designed to allow Yaya to expand her experience of easy, more comfortable organization, Yaya will learn to explore and experiment and thereby more quickly develop the skills critical in early childhood.

In her work, Field applies basic Feldenkrais Method principles within the fundamental context of the learning and developmental process of all humans. A child's nervous system is waiting for the appropriate experience and sensory feedback to develop to its maximal potential. To this end, Field focuses on the elements within the infant that are closest to the actions of the spine, amplifying something profoundly important to the child.

To Field, the proof of effectiveness is that in response to this approach the child spontaneously begins to try something new and relevant. With appropriate input, the child can more effectively discover variations of movements and choose between them. The practitioner provides the sensory environment that the child needs; the child integrates the sensory information and utilizes whatever serves her intentions. Together, practitioner and child restore the potency and direction of healthy development.

Could Feldenkrais Resolve the Paradox of My Jewish Self-Image?

Ilona Fried

*Learning is turning
darkness, which is
the absence of light,
into light.*

—Moshe Feldenkrais

My father's unexpected passing in May 2003 plunged me into darkness and thrust me back into Judaism after years of deep ambivalence. Ritual prayer crossed the threshold of my father's Massachusetts home, where my two brothers, their families, and I sat *shiva*. My older brother, an observant Jew, had invited a *minyan*, a 10-man prayer quorum from the local Chabad chapter. His intention to honor our father's Hasidic upbringing in prewar Hungary had been noble. That he hadn't consulted me felt like a religious hijacking of a private affair. That these strange men hadn't known my father, a Holocaust survivor, and that their rapid-fire prayers stifled my own inchoate words, heaped distress upon my disorientation. That first day I wanted them to leave, and leave us alone. As the week wore on, and the flow of visitors subsided, I noticed that the *minyan's* afternoon arrival comforted me as I sat in the gaping void of grief.

When the *shiva* ended, I flailed as if deprived of a life preserver. With my father no longer alive to offer Judaism by osmosis, often sharing Talmudic wisdom as salve for my angst, I decided to give it another look. Thus began a gradual, wary return to religion and prayer. I attended retreats at the Elat Chayyim Center for Jewish Spirituality. There I learned about the Hasidic practice of *hitbodedut*, unstructured spontaneous prayers between an individual and God. When the rabbi sent us outside to speak aloud to the divine, I became overwhelmed with awkwardness. Words failed me. I also learned about *devekut*, a

“cleaving” to God by fostering moment-to-moment connection with the divine. It seemed irrelevant since I didn’t know what to say.

About a year later I challenged my habit of not affiliating and joined a local synagogue. I relished singing in community, particularly the wordless chants known as *niggunim*, as we welcomed the Sabbath. Still, the Hebrew and Aramaic words in the prayer book didn’t connect me to God in the way I thought they would. Prayer felt like an obstacle instead of a vehicle, inviting distraction rather than inspiring *devekut*. When the assistant rabbi held a class on prayer, I enrolled. She shared Jewish texts on approaching the liturgy. One suggestion included meditating on meaningful fragments, rather than reciting the whole prayer. Still, even after visiting Israel, Jewish prayer never became mine.

Upon discerning that I felt closer to the divine and connected to myself when in nature, attending synagogue became less appealing. As I considered leaving that Jewish community, a social anchor of sorts, I reevaluated other pieces of my life. Being a single, self-employed artist, I could try something new. After much reflection, I moved to Denver, Colorado, with its abundance of natural beauty. I flitted between Jewish communities—cultural, spiritual, and artistic—in Denver and nearby Boulder yet wasn’t able, or willing, to land.

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I stumbled upon and limped into my first Awareness Through Movement (ATM) class after injuring myself along Spain’s El Camino de Santiago pilgrimage, known as “The Way.” By that time I had begun an ambivalent exodus from religious affiliation. My self-image had been shaped by Judaism and Jewish history, yet I didn’t feel at home in synagogue or with the tribe: it felt like an impossible predicament, an unsolvable riddle. My withdrawal was characterized more by sadness than righteous rejection. When I lay on the floor for that first lesson, I knew almost nothing about either the Feldenkrais Method of somatic education or its namesake. A snippet on the teacher’s website intrigued me: as I recall, he characterized the method as “a Way, drawing from Western science, Eastern martial arts and Jewish teachings.” In that first class, the creeping pace and frequent resting irritated me so much I couldn’t wait to get out of there. At the end, I couldn’t believe how relaxed yet alive I felt. Had a miracle occurred?

I kept attending class. The cadence, rhythms, and patterns of the movements began to feel deeply familiar, as if they were already in my bones, just waiting to be beckoned. At moments they seemed like embodied echoes of certain Jewish prayers. Perhaps what I felt was more primordial, preceding written prayer, the vibration of an inner chord I hadn’t noticed before.

I wondered if the deep resonance was due to the odd coincidence that my late father and Moshe Pinchas Feldenkrais shared at least four points of biographical similarity. Born in Hasidic communities roughly 300 miles apart, both men had separated from family as young

teenagers. Both endured trauma, the extinction of extended family, and perilous journeys to new lands. Both became physicists and rejected religious orthodoxy. Had I inherited a predisposition for this modality whose double helix included scientific and mystical strands?

Attempting to understand more about this sensed connection, I read Dr. Feldenkrais' books. While searching for articles about him and the Method, I observed that many Guild and practitioner websites failed to mention his Jewish origins, characterizing him as Russian or Israeli, while referencing other influences on the work. That this omission bothered me served as a clue that my Jewish heritage was more integral to my self-image than I'd allowed myself to believe. Yet, uninterested in observing religious practices, unattracted to secular Jewish affiliation, and unwilling to disavow my roots (were that possible), I wasn't sure where my misfit Jewish identity belonged. I wondered if this "Way" offered a solution to my peculiar and painful paradox, a means of making "the impossible possible," of helping me be Jewish without "being Jewish" in a customary sense.

My ATM teacher suggested David Kaetz's *Making Connections: Hasidic Roots and Resonance in the Teachings of Moshe Feldenkrais* (2007), a book borne of his own desire to "fill out" the picture of influences on the Method. In the preface, Kaetz wrote:

The Dalai Lama will not tell you that your chances for enlightenment are any less if you were not born in Tibet. Nevertheless, in the transmission of any serious teaching, one honors the lineage, or one loses the thread. A tradition will change its face from generation to generation, and from epoch to epoch, but the very existence of a continuous lineage helps to maintain its integrity.¹

¹ David Kaetz, *Making Connections: Roots and Resonance in the Life and Teachings of Moshe Feldenkrais* (Hornby Island, Canada: River Centre Publishing, 2007), 21.

"Lineage" opened the possibility of reimagining the thread of my heritage so that it felt light and free, rather than heavy with Holocaust losses and the constraints of tradition. Of the book's passages I highlighted, one stood out:

It is not given to us to say with certainty that this or that specific aspect of Moshe's teachings is derived from this or that specific circumstance in his background. It is possible, however, and probably very useful, to listen to the background, and to notice where Moshe's teachings 'map onto' aspects of the old tradition, as well as places where they seem to be reacting to, or compensating for, such aspects.²

² Kaetz, 83.

Given what I'd experienced of the Feldenkrais Method, I didn't disagree with the idea of listening obliquely, or with relaxed attention, to Feldenkrais' background. Yet, while the book filled many gaps, I wanted something more concrete. I wanted to connect specific

Hasidic teachings to what I'd been learning in ATM lessons, to create a tangible thread and to "prove," if only to myself, that the Feldenkrais Method sprung from the ground of Hasidic wisdom. After a process of deliberation, I followed my curiosity and enrolled in a training program.

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Before the first segment in May 2014, I decluttered my possessions. I hoped the month-long immersion would be so transformative that, upon returning, I wouldn't want to confront evidence of patterns I wished to shift. I approached the task like an ATM lesson: slowly and with care, I sorted my belongings and papers to sense the quality and relevance of each item.

An overstuffed folder contained handouts from that long-forgotten prayer class, nearly a decade before. One xeroxed page, *The Unfolding of Tefilah [Prayer]*, stopped me in my tracks. It began:

3 All quotes from *Tzava'at Harivash, The Testament of Rabbi Israel Baal Shem Tov*, Jacob Immanuel Schochet, ed., trans., #32 (Kindle version).

When praying, move gradually.³

Wasn't that nearly identical to Moshe Feldenkrais' instruction in *Learn to Learn*? I located my copy. It begins:

4 All quotes from Moshe Feldenkrais, *Learn to Learn*, accessed August 25, 2016, http://thefieldcenter.org/06resources/downloads/learning_to_learn.pdf.

Do everything very slowly.⁴

I kept reading the guidance on prayer:

Do not exhaust all your strength at the outset.

Again, I referenced *Learn to Learn*:

Fast action at the beginning of learning is synonymous with strain and confusion which, together, make learning an unpleasant exertion.

A shiver shot through my spine. The close correspondence couldn't be accidental. How uncanny to have found *The Unfolding of Tefilah*, unread for years, on the eve of my Feldenkrais training.

I looked at the bottom of the xeroxed sheet for the source: *Tzava'at Harivash*, #32, or *The Testament of Rabbi Israel Baal Shem Tov*, the founder of Hasidism and an important influence on Rabbi Pinchas of Koretz, Dr. Feldenkrais' namesake. Many Jews at the time of the Baal Shem Tov (1698–1760), as well as today, were or are alienated by traditional approaches to worship that include praying in an unintelligible, rat-a-tat tempo. Hence the need for classes on prayer, and hence *The Unfolding of Tefilah*, annotated as follows: "This teaching articulates the Hasidic understanding of prayer as a journey. The goal is not to recite a maximum number of words in a minimum of time. Nor is prayer presented here as an opportunity to make requests of God."

That description corresponded to my experience of ATM lessons as open-ended journeys, with nowhere to go except closer to the embodied moment. As Feldenkrais wrote in *Learn to Learn*:

We do not say at the start what the final stage will be.

The Testament of Rabbi Israel Baal Shem Tov had been so threatening in its day that opponents of Hasidism, favoring a more legalistic Judaism, publicly burned it. The prayer guidance from that text continued:

Rather, begin slowly, and in the midst of your prayer, cleave to God with greater intensity. Then you will even be able to recite the words of prayer very quickly without losing your focus.

And Feldenkrais in *Learn to Learn*?

When one becomes familiar with an act, speed increases spontaneously, and so does power. This is not so obvious as it is correct.

The guidance concluded:

While you may be unable to connect with God at the beginning of prayer, continue to recite your words with attention and focus. Strengthen yourself, step by step, until God helps you to pray more intensely.

That controversial text seemed to address the unrealistic expectation that one could obtain a desired result on the first try. “Step by step” is reflected in the incremental progression built into many Feldenkrais lessons, which ultimately allows people to do what they want. Moshe Feldenkrais offers:

By reducing the urge to achieve, and attending also to the means for achieving, we learn easier. . . . By doing a little less than you really can, you will attain a higher performance than the one you can now conceive.

That Jewish mystics had understood the benefits of moving slowly, long before “neuroplasticity” became part of the lexicon, warmed me to my heritage. I brought the prayer guidance and *Learn to Learn* to the training. Immersed in the novel environment and marveling at rapid improvements in my vision, dexterity, and agility, I devoted little thought to lineage and prayer. In the second segment, a visiting trainer taught one side of “Coordinating Flexors and Extensors” and asked us to speak the instructions to ourselves for the second side. As a rare hush descended over my classmates, I glanced around to recall the

movement sequence. The rapt attention and focus, with students' arms forming triangles and hands placed palm to palm, lips moving in near silence, evoked a sacred environment. Could I consider Awareness Through Movement lessons to be a kind of prayer, much as *Learn to Learn* had been informed by the Hasidic guidance on prayer? Could I consider both learning and prayer as trajectories toward the infinite, toward what is not yet known and what might never be completely understood? If so, could ATM become a spiritual practice for me?

Still, I wanted confirmation of some kind. I watched the first year of the Amherst training for clues, such as offhand remarks from Moshe. I listened to podcast interviews of Feldenkrais trainers and practitioners to see if others had connected ATM lessons and prayer, however they defined it. I scoured the Internet for articles that could shed some more light on what had sent that initial shiver down my spine. I spoke to Jewish practitioners who, while also recognizing a deep Jewish imprint on the Method, couldn't put their finger on it. The vagueness left me dissatisfied. I wanted to put into words the resonance I felt, yet couldn't.

The publication of the biography of Moshe Feldenkrais coincided with a training segment and its associated expenses. After balking at the price, I reconsidered: what if it held an answer? The weighty book inspired reverence, and I opened it with care. At the beginning of *Moshe Feldenkrais: A Life in Movement* (2015), the late Mark Reese wrote that it was Feldenkrais' choice, not the author's, "to begin the life chronicle of a man of science with his religious roots."⁵

My shoulders dropped in relief that the Jewish influence on Dr. Feldenkrais, one he himself recognized, would be given serious and prominent attention. Further in, Reese wrote: "He embodied a synthesis of the spiritual with the scientific," confirming my felt sense of the double helix spiraling throughout the Method. In the same paragraph he continues:

It is as if Feldenkrais transmuted the 'clinging'—the devotion to the divine that was intrinsic to Hasidism—and made it a path of intimate observation, a phenomenology. It illuminated his scientific investigations and his inquiry into experience itself. Going further, he guided ways of learning that could reach levels felt as ecstatic and transformative. Here, too, if we look closely, we will find elements that can seem distilled or refined from the ecstatic practices of Hasidic worship.⁶

⁵ Mark Reese, *Moshe Feldenkrais: A Life in Movement* (San Rafael: ReeseKress Somatics Press, 2015), 2.

⁶ Reese, 39.

Reading that passage felt like winning a mystical jackpot. Whether *devekut* is translated as 'cleaving,' 'clinging,' or 'gluing,' it appeared in ATM lessons as moment-to-moment awareness of the whole self as one hooks attention on precise configurations and movements. I grinned, flagged that page and closed the book. I had an answer and a path out of my paradox, even if I didn't know where it led.



Franz Wurm and Moshe
Feldenkrais photographed
by Michael Wolgensinger
(1973)

A Body to Mind

Franz Wurm
Feldenkrais Institute, Zurich

Introduction

I first met Franz Wurm (born March 16, 1926 in Prague; died September 29, 2010, in Ascona, Switzerland) in Tel-Aviv in 1974. He was visiting Moshe to work on the German translation of *Awareness Through Movement* and receive FI lessons.

Franz was a very close friend of Moshe's. He lived in Zurich and worked as a playwright and poet, as well as a translator of Samuel Beckett and other well-known playwrights and poets. Franz translated Feldenkrais' *Awareness Through Movement*, *The Elusive Obvious*, *The Case of Nora*, and *The Potent Self*. I would find out later that Franz and Moshe, both Jewish European refugees, had met in London just after the war, when they lived in the same building and Moshe was just beginning to develop his work. In those days, Moshe would share his experiments with Franz and use him as a subject.

In 1949, Franz moved to Zurich and a year later Moshe returned to Israel. I was in awe of Franz; he was tall, dignified, highly educated, and had a deeply resonant voice. In fact, he was also a broadcaster and the director of cultural programming for Swiss Radio. In the 1960's Franz arranged for Moshe to broadcast 10 ATM lessons on Swiss Radio. Though Franz had not been part of Moshe's first training group, Franz did become a practitioner, and Moshe encouraged him to open the Feldenkrais Institute of Zurich, which Franz maintained for many years with his wife, Barbara Z'Graggen.

After I returned to the United States, I corresponded with Franz and at some point, he shared his notes for a lecture recorded at a hospital in the late 1970s, about Moshe's work and ideas. Over the years, I have read and re-read Franz's notes for his lecture, and I have always found something new to appreciate. I hope that you will feel the same.

—David Zemach-Bersin

Introducing his “Lecture on Ethics,” Wittgenstein said: “To explain a scientific matter to you it would need a course of lecture and not an hour’s paper. Another alternative would have been to give you what’s called a popular-scientific lecture, that is a lecture intended to make you believe that you understand a thing which actually you don’t understand.” Lack of time has made me settle for a compromise: I can try to be comprehensive within the limit of this hour: I cannot be comprehensive. You will ease my conscience if you will bear this reservation in mind.

Man walks on his two legs. There’s nothing new about this, and we tend to take it for granted. But then taking things for granted can be a very misleading way of looking at them. Suppose we asked some questions about such facts, especially about facts which have lain open before us for centuries and more. We have no reason to take the upright gait for granted: we are not born to walk, we have to learn it. If you are observant, and you will look at people in the street, you will find that not one of them walks like any other. Could it really be that their bodies are so different? Or that they have learnt to walk in so very different ways? Or that each has, in the course of time, developed a way of moving on his own? To put this in another way: to what extent are they formed by heredity, by circumstantial influences, by modes of behaviour self-imposed?

Let’s try another question first: What is the advantage of upright carriage? It was sometimes assumed that man, needing his hands no longer for locomotion, was able to use them to become a human. But then apes, squirrels, kangaroos, bears, other animals sometimes walk upright too, and use their front paws for something other than walking, running, or jumping. So all we can say about this for the moment is that man uses his hands in a specifically human way, that is to say: we can describe how he uses them, but we cannot say why.

The hands won’t take us anywhere just now; so let’s go back to the upright posture. Suppose we screw in an eye-bolt at one end of a stick, tie a string to it and twist the string: the stick will set itself spinning quite readily with little effort. Now move the eye-bolt and fix it in the middle of the stick, again tie on the string and twist it as before: the stick—now horizontal—will start rotating much more slowly than before, and only after numerous twists of the string. More energy is necessary to set it turning in this new position if we want it to turn with the same angular velocity, though its mass or weight is exactly the same as before. It is obvious that in rotation it is not the mass that counts primarily, but something characterizing and regarding position at the same time. The moment of inertia is that quantity, and it plays the same role in the rotation as mass in linear motion. The smaller the moment of inertia, the less energy is necessary to set the body in motion. And the moment of inertia increases very rapidly with the distance from the axis of rotation. Comparing the human body with that of other animals, we find that the moment of inertia around the vertical axis (passing through the centre of gravity) is very small. It follows that the human body is the closest to

an ideal frame designed for movement and the least suited for standing motionless.

The small moment of inertia is the result of the almost cylindrical piling-up of the pelvis, the trunk and the head, vertically, one above the other, which at the same time brings the centre of gravity of the body to the highest possible level compatible with its structure, and therefore unstable equilibrium obtains. It is this precarious unstable balance—and deviations from it—that rules all human behavior. Movement horizontally from the position of equilibrium in any direction involves little expenditure of energy or work. Restoring equilibrium when disturbed necessitates the same small expenditure of energy as above. In the unstable balance, the centre of gravity being as high as possible, potential energy is maximum. No supply of energy from any other source is necessary to change the position. The standing body is thus ever ready for translation movement at short notice with practically no expenditure of energy, and even this minimum is drawn from its potential energy. In this respect it is more mobile than the body of any other animal, which may be faster in one particular direction but has not the all-round freedom of movement of man. Let me add, that obviously large deviations from the position of unstable balance impair mobility. I shall have more to say about this later on.

Now, the erect posture is a biological quality of the human frame, and there should be no sensation of doing, holding, or of any effort whatsoever. The actual posture is always the result of what the frame would do thanks to inherent mechanisms, and of what we have learned to do by adjusting ourselves to our physical and social environment. Much of what we have learnt is to the detriment of the system, for it has been learnt under the duress of affection or the stress of hardship while immediate dependence on others distorted our real needs. Long-standing habitual action feels right; our feeling is therefore unreliable before we reeducate our kinesthetic sense to reality-tested norms.

It seems strange that no science concerned with man has so far found it worth note that we (as everything in the world) live in a field of gravity and are subject to it. As you will have noticed, I have been considering here the human body in its relation to gravity. It is customary to begin the study of mechanics with statics, considered simpler or more elementary than dynamics. Curiously enough, in man the movement is achieved more easily and earlier than immobility: a child begins tumbling forward long before he can stand motionless unsupported; years pass before he can stand on one leg, and many adults never achieve static perfection so as to be able to stand on one leg for any length of time, especially with their eyes closed, though they can do all sorts of movements. Note that we walk, sit, or lie when we want to think: few people will find standing still as being conducive to thought. We also lie down when we are tired, or ill, or at the psychiatrist's. Now, 90% of our nervous system is kept busy regulating our behaviour in relation to gravity; it is therefore relieved most when freed from this immense

activity of standing against, and in spite of the gravitational pull—in other words: when we are lying down.

Let me sum up for the moment: The human body—which we shall regard as one of the manifestations of man—is built in such a way that it can resist gravity without any effort, and that it can move in the field of gravity with next to no expenditure of energy. Standards of correct posture and movement have been worked out and set down, with all due allowance to individual differences. Because of such differences, any deviation from correct behavior is not to be interpreted, at least not initially; it can be noted and corrected. Correction or, preferably: “improvement” is a process of learning, that is to say: of forming new responses which are functionally more appropriate. A matter of know-how if you like. But to understand what you know, you have to feel it too. And this is not just a grammatical remark on “understanding.”

It had been observed by Feldenkrais in the forties that psychiatric treatment achieved a lasting effect only if the improvement was accompanied by some change in the body. Research showed that such changes agreed with the principle I tried to give you a moment ago, namely: that these improvements all tended towards diminishing unnecessary effort in the behaviour in relation to gravity. Feldenkrais—on whose work this paper is founded and from whom it draws its line of thought—linking these observations with, for instance, Maupertuis’ principle of least action and with the correlation principle of Cuvier, found that emotional or mental disturbances as well as functional misdemeanor of the body, are due to disturbed functioning of our nervous system. Therefore just as mental treatment could bring about change in the organism, so would conversely improvement of the body behaviour work changes in the mind. Consequently, nearly everything which we call “illness” should respond to treatment whether through the psyche or through the body equally, sciatica no less to treatment by the psychiatrist than paranoia to the education of the body which Feldenkrais proposed. If this were shown to be true, the method would be not merely remedial.

Further research and experiment bore it out; and a few years later, in a series of lectures to the Association of Scientific Workers, Feldenkrais explained the foundations of his work and the practical implications that derived from them. So-called “nervous diseases”—the name itself being symptomatic of the state of our knowledge—such as gastric ulcers, asthma, migraines, and so on and so forth, responded to such treatment no less than arthroses, discal troubles, lumbago, some cases of paralysis and, for that matter, often the common cold—to quote only a few instances at random. It can be said that, by and large, all chronic non-infectious diseases, deficiencies, and complaints, provided they are neither inherited nor due to, or have already caused irreparable organic damage, are amenable to treatment by this method. If you have lost a limb, you cannot be made to grow a new one; but you can be helped to teach yourself to use yourself and the remaining limb more effectively

than you had previously used the pair. The line beyond which damage becomes irreparable depends on the person involved, and on the skill and wisdom of the teacher. There's a good deal more to this than meets the eye. Freud said, though he subsequently made no use of it, that the unconscious is based on the chemistry of physiological processes. Nowadays, neurophysiologists are finding some difficulty in tracing the connexion between the structure and function (same thing, really) of some of the higher centres in the brain, and the rest. Freud's remark, and Feldenkrais' work seem to point to a clue. Without going into details—which I couldn't do anyway—I'd just leave you to ponder this: how come that, in psychoanalysis, a change in behaviour, in body-behaviour is eventually brought about (when it is brought about) through speech?

Behaviour in relation to gravity has the advantage that it can be observed and measured. Anyone can be made aware of it and learn to improve it. An ideal standard can be deduced from the structure of the body and its mechanics, and used as a working hypothesis; but deviations from this standard are not to be regarded *a priori* as symptoms of illness. Historically speaking, Medicine is a remedial science: we go to see our doctor when we feel less well than usual, and we expect of him that he will restore to us our usual way of feeling ourselves. But we seem incapable of feeling disturbances which, to us, have become habitual. Upright posture for instance should be reflective and need no work from the voluntary muscles, and in correct posture elastic reaction of the skeleton brings the compression to zero. But if we have once got used to some fault in posture, we no longer feel the superfluous effort which is required of us by this very fault. Now, what we commonly call an "illness" is usually preceded and accompanied and sometimes even followed, by some such fault or deviation. But from this to interpreting any deviation as an "illness," we should first of all have to know what precisely "illness" means. And I do not think that Medicine has so far found any adequately exact criteria by which to define "illness" and "health." Which is why it seems preferable here to speak rather of deviations; all the more preferable as we can recognise and describe what they are deviations from. The deviations are signs of functional misdemeanor. They become habitual and eventually lead to disease—by reducing resistance even to infectious diseases, or rather: to a proclivity to catch them. One usually speaks of "illness" when the deviations are great in degree and small in number; but they can also be numerous, and small in degree. Old-age complaints can be deduced from the years in advance: they lead to some of the troubles sometimes listed under the heading of rheumatism, to discal trouble, scolioses, kyphoses, sciatica, asthma, arthritis, arthroses, etc., all of which can be prevented or remedied by learning to correct the deviations. Old age, for instance, begins with the self-imposed restriction on forming new body patterns. First, one selects attitudes and postures to fit one's dignity of position, and thereby one rejects actions which soon become impossible. It suffices to examine sitting on the floor and jumping, to

realise how important a factor this rejection is in ageing a person. Their resumption and reintegration into normal usage has a marked rejuvenating effect not only on the mechanics of the body, but on the personality as a whole. Apart from inherited shortcomings and damages past remedy, we might say that everybody is potentially in perfect health, but he doesn't know how to attain it. In this the method developed by Feldenkrais has proved able to help both of them and those befallen by aches and pains and complaints of all sorts of origin.

We have no way of following directly processes in our central nervous system. We can become aware of such processes only insofar as our sight, our speaking apparatus, our face, and the rest of our body bring them to our notice. This is what we mean by consciousness. The same goes for all sense-perception, feelings, and thoughts: so long as they do not make themselves felt by a mobilisation of our motor regions, we remain unconscious of them and to all intents and purposes they do not exist for us. We can be conscious of changes in our well-being or feeling ill at ease, without however being aware of the underlying physiological changes. That is, we often notice feelings, but not what causes them. I would sum this up as follows: there can be no sense-perception, no emotion, no thought, and obviously no movement without its becoming apparent in the behaviour of the body. In short, we cannot become conscious of a feeling or thought before it is expressed by a motor mobilisation, and therefore there is not thought or feeling so long as there is no body attitude. I have already said conversely, changes in body behaviour change feeling, etc.

A newborn infant is practically insensitive to external stimuli. At birth he hardly reacts to light-effects, to noise, smell, and even moderate pinching. He reacts violently to immersion in very cold or hot water. Also if suddenly lowered, or if support is sharply withdrawn, a violent contraction of all flexors with halt of breath is observed, followed by crying, accelerated pulse, and general vasomotor disturbance, with the extensors inhibited. We explain these as the instinctive reaction to falling. In the adult, these reactions are sensed as fear; and they are elicited in the newborn baby by sharply altering its position in space. And on examining even the most generous list of instincts, no other one but fear is found which inhibits motion. How, the problem of "can" and "cannot" is fundamentally a question of muscular activity, or the inhibition of it. Even doing nothing involves muscular activity of great complexity. We may therefore expect to throw some light on phenomena accompanied by chronic or habitual muscular tension or flaccidity.

It was assumed until quite recently that the primary reaction which could be elicited from a newborn baby (apart from sucking), was the response to very loud noises. Now, it is known that stimuli stronger than usual diffuse and irradiate because of incomplete myelinisation and in newborn infants, the spreading of excitation is therefore greater than in the adult.

Very loud noises excite the cochlear branch of the eighth cranial or auditory nerve sufficiently to diffuse and excite the vestibular branch of the same nerve. This irradiation takes place not in the nerves, but in the first relays (in adults possibly at higher centres still).

The eighth cranial nerve divides near the periphery into two branches: the cochlear, concerned with hearing, and the vestibular, concerned with equilibrium. The two branches are thus closely interconnected. And higher up, at the superior olive, strong incitations, produced by very loud noise, will diffuse and excite the tenth cranial nerve instrumental in holding breath. Strong impulses from the vestibular branch will diffuse in the same way to the superior olive and will produce a halt of breath. The halt of breath is a sudden disturbance of the cardiac region. It is this disturbance in the diaphragmatic and cardiac regions that is sensed as anxiety. The vestibular branch of the eighth cranial nerve innervates the semicircular canals and the otolithic apparatus. It is the former that senses any change in acceleration, while the otolithic apparatus senses slow movements of the head relative to the vertical.

Thus, the reaction that the adult interprets as fear of falling is inherited, inborn, and needs no personal experience before it is operative. And sudden, sharp lowering of a newborn infant elicits the whole series of reflexes which are the reaction of the body to falling. The first experience of anxiety is therefore connected with a stimulation of the vestibular branch of the eighth cranial nerve.

In the first fortnight or so, the baby is almost insensitive to noise. A little later he will respond to very loud noises, which are the only ones by which he is affected. The stimulus is therefore very strong, and diffusion to the vestibular path will take place. The baby is startled which also adds direct stimulation of the semicircular canals due to the jerk of the head.

The falling body contracts its flexors to preserve the head from hitting the ground and to strengthen the spine by arching it. In the standing adult, the initial response to falling lowers his head, makes him crouch, bends his knees, and halts his breath. This attitude gives the best protection possible and instills a sense of safety. And this pattern of flexor contraction is reinstated every time the individual reverts to passive protection of himself when lacking the means, or doubting his power, of active resistance. The head and the hip joints are drawn together. "Escape" by turning the body is achieved by detour or roundabout means.

Every pattern of impulses reaching the central nervous system from the viscera, muscles, and soma in general is associated with an emotional state. The muscular contraction being voluntarily controllable, creates a feeling of power and of control over sensations and emotions. To every emotional state corresponds a personal conditioned pattern of muscular contraction without which it has no existence.

I have dwelt on the reaction to falling at some length because it is a fundamental example of the interdependence of body behaviour (or

movement) and mental phenomena such as fear and anxiety. Let me remind you that Freud contended that anxiety is the control problem of neuroses. Incidentally: the use of psychopharmaca or of electric shock in cases of mental disturbance is a step in the same direction: it implies that mental—or emotional—disturbances depend on the structure and activity of the nervous system; can be influenced by chemical and physical means.

We have only one set of muscles. Only through them can mental and physical behaviour express themselves. The muscles are activated by impulses from the nervous system. No physical or mental change can therefore occur without a corresponding change in the nervous system. In other words: any change in the mental and physical behaviour of a man is equivalent to a change in the nervous system, and expresses, shows itself in the activity of our muscles.

If—to return to our example—falling elicits the reaction to falling, and anxiety is synonymous with the reaction to falling, the relation between the brain and muscles must be indivisible. For a muscle to contract or to relax it must receive the appropriate impulses from the nervous system. If a change of tonus can be brought about in a given muscle or set of muscles a corresponding change is effected in that part of the nervous system, or brain, which determines the tonus of the muscle or muscles concerned. Since we have only one set of muscles, only one body, and this is the instrument of our mental expression “too,” changes worked in the body will take place only when corresponding changes in the mind have occurred. As drink, or drugs, or for that matter, deliberate unaccustomed movement will show.

It depends on our point of view whether we regard a penny as a coin or as a round piece of metal; and according to our points of view, the proper ties and uses which we shall attribute to it, will be different. The same goes for body and mind: they are two aspects of one and the same system.

If you could see me speaking now, you would notice the movement of my lips, my jaw, of the eyes and perhaps the hands, and you'd know from your own experience, what other organs I'd be activating in order to produce these sounds, these words. In listening to me, you are considering the meaning of my words. So it will depend on the point of view of the observer whether he will interpret my activity as a physical or a mental one. To put this point more clearly: a brain could not think without motor functions; at least the continuity of mental functions is assured by corresponding motor functions. A simple example: it takes us longer to think the numbers from twenty to thirty than from one to ten, although the numerical intervals are the same between one and ten, and 20 and 30. The difference is due to the fact that the time intervals are proportional to the time needed to utter the corresponding syllables aloud. This suggests that we actually mobilise the brain mechanism of the vocal apparatus while thinking. And again: in counting objects we

find in general the link of motor parts of vision and verbalisation keeping down the speed of thought to the rate of motor elements. Most people cannot think clearly without mobilising the motor function of the brain enough to become aware of the word patterns representing the thought. It is of course possible with sufficient training to inhibit partially the motor aspect of thinking and thus increase the speed of thought. It has been shown that when deep muscular relaxation is obtained, it is difficult or even impossible to think without noticing an appearance of tension in the muscles. When picturing an object even with closed eyes one senses a tensing of the eye muscles. Or again: note how persistently we retain the same thoughts and the same modes of action, how we use the same patterns of the speaking apparatus, producing the same voice, so that we can be identified by it for decades on end. And this holds equally for our handwriting, our carriage, etc. so long as there is no marked change in these, there is no change in our jokes, our attitudes and moods.

All movement, whatever its purpose may be, like closing the eyes when remembering or thinking, is, in the last analysis, in the field of gravity. Not only is the eyeball moved as a mass in the field of gravitation, but the rest of the body is set in a special attitude and is thus maintained against the tendency of gravitation to bring it down. There is little awareness of all this constant adjustment to very stringent requirements, but the nervous system is constantly and without break responsive to gravitation so long as there is any life in it. Therefore, when we speak of antigravity function, we refer to motility in general.

As a rule we are concerned with what a person does or has achieved, rather than with how he does it. On shifting our attention to the quality of the act, the ease, the time necessary to initiate an act, the amount of interference a person can stand before the act is upset in short, if we examine the manner instead of the result of doing, inadequate adjustments show up much more readily.

There are thus two ways to change a person's behaviour: either via the psyche, or via the soma. This distinction or alternative is, as we have seen, purely verbal, and to make a change real it must be brought about in a fashion which allows both the soma and the psyche to be changed simultaneously. If the change is not integral—which, on the mental plane, might correspond to knowing something without understanding it—the change will last only as long as the person has not lost the awareness of the change, i.e. only as long as he does not start to act or react in his habitual fashion. In fact, he has only to get involved for a few moments in his usual troubles and he will not be able to recover without further help. Scanning one's own body image one can detect the return of the unwanted habitual muscular pattern some time before it is consummated, and one can either inhibit or facilitate it by an act of volition.

Man's capacity to make personal nervous and muscular patterns is associated with the fact that innervations concerned with voluntary

movement grow while the control of action is being learned. All the new responses he acquires are integrated into a vast background of vegetative and reflex activity. He learns to speak, to walk, to adjust himself to his parents and to other members of society all at once. All these different patterns developing simultaneously, are interwoven on the mental plane and in the body. To every attitude there corresponds an affective state and a muscular pattern.

Every function has while developing, its own vulnerable points where most faults are like to occur. In psychoanalysis, there are, for instance, the Oedipus complex, castration complex, and the like. These occur at crucial periods of development of the libido. And if the learning process is halted there a clear case is present.

The adjustment to gravity has its own history with similar foci of arrested development. The spine, in early childhood, is practically straight and the cervical curve begins to form before the lumbar curvature. Thus the shoulder, neck and sacro-lumbar regions are those in which most incomplete, or otherwise faulty, learning will find its halting barrier. There are mechanically the regions in which the greatest muscular adjustment is necessary, because very heavy masses have to be properly aligned with great precision. Also many of the muscles of these regions act on more than one joint, and their control is more delicate. Moreover, turning or twisting of the body around the vertical axis, through the centre of gravity, for which the human frame is predominantly fitted, takes place mainly in these two regions. In a person continuously maintaining a posture different from the one the reflex mechanisms are fitted for, the conscious overriding control—all the elements of which are acquired through personal experience—is responsible for the faulty activity. In most cases anatomical lesion is excluded, and we conclude that the overriding control gives directions contradicting the reflex impulses from all the gravity concerned centres. If this is the case, there must be muscular contract on present that is not indispensable for maintaining the proper erect posture. Close study shows that we deal with faulty distribution of activity, i.e. some muscular groups are doing unnecessary work while others are flabby and toneless. In short, arrested development leaves its mark on all functions without exception. Digestion, breathing, muscular control, sexual act, social adjustment, and so on and so forth are all affected simultaneously. Only deep emotional disturbances can so affect the conscious control as to distort the appreciation of the environment and yet leave the subject in ignorance to continue in what is really an imaginary world of his own.

The advantage of approaching the unity of mental and muscular life through the soma lies in the fact that the muscle expression is simpler: it is concrete, easier to locate, and requires no interpretation of (verbal) symbols. It is thus also incomparably easier to make a person aware of what is happening, and therefore to get faster and more direct results. On acting on the mere significant parts of the body, the eyes,

the neck, the pelvis, on breathing and its apparatus, it is easy to effect striking changes of mood and in the body image on the spot. Feldenkrais has achieved clear results also with a group technique which can be self-taught.

Before going any further, I should like to make clearer some of the terms which I may seem to have been using rather loosely. An act can be reflective, unconscious, automatic, conscious, or aware. Unconditioned reflexes are innate and characteristic of a whole class of animals; they are transmitted by heredity and are independent of the experience of the individual animal. The conditioned reflexes are not inherited and depend on the surrounding conditions of each individual. They are essentially temporary. A child is gradually taught, through personal contact with the adult (or with society in general) a series of responses which will in time become more or less automatic. The difference between habits and reflective behaviour is that habits only tend to repeat themselves whereas reflexes do so by definition.

Individually acquired action, i.e., ontogenetic action, pertains to the senses. Such action can be altered as one can become aware of qualifications which are of the realm of reality, such as the extent of the effort, its co-ordination in time, the body sensation, the spatial configuration of the body segments, the standing, the breathing, the wording etc.

When considering living beings, we usually distinguish two states: that of waking and that of sleep. An animal, when it is awake, will move in this direction or that—and so do we. And we may, like an animal, go in this direction or that without necessarily realising that we are doing so: that we are turning left or right, or how we are moving, and so on. We may be thinking of something quite different, of something we had seen, or of what we'll do tonight. We are in the waking state, and we are conscious, we would stop at a red light or recognise a friend we should chance to meet. What I want to say is that “consciousness” often simply means being awake. We are conscious when we are neither asleep nor dead when we haven't fainted and when we aren't dreaming.

But we can turn left or right, go forward or backward, and know that we are doing so. We can remember, in our waking state, what we have dreamt in our sleep, and know that we have dreamt it. Children sometimes fail to draw this distinction, that is to say: they have not yet completely learnt to distinguish between signals derived from their own body and those derived from the outside, between “I” and “Not-I.” This distinction is the beginning of consciousness. The first glimpse of awareness is the recognition that “I,” the body, is oriented towards the “Not-I,” the outside in the widest sense of the word, including for instance the social field and all its ramifications. Awareness, then, might be described as being conscious of one's consciousness. To give you another example: I often go up the staircase in my house together with my dog. I believe that the dog doesn't know how many steps the staircase has, and neither do I. But I can, when going up or

downstairs again, count the steps as I move my legs; I can also, from the landing at the top or from the bottom of the staircase, count the steps by movements of my eyes; and lastly, I can repeat the movements from memory, in my imagination, and count them in this way. In each of these cases, I am focusing my attention both onto my feeling inside me, and onto the surroundings outside me—or, in the last case, onto an abstraction of these—until they become congruent: which is what I then experience as awareness.

Activity becomes habitual with repetition to which consent is given. The habitual mode of doing feels right because of repeated approval. In the same way, of course, awared learning is complete when the new mode of action becomes automatic, as all habits do. The difference between a self-established habit and one acquired by awareness is, that when the latter shows unfitness or maladjustment with regard to reality, it easily awakens awareness and thus enables one to make a fresh and more efficient change. If you would like some more direct experience of this, try, next Saturday or Sunday morning, from the moment you wake up, to do everything down to the smallest detail, a little differently, i.e., in a different way, and perhaps in a different order, for as long as you can get yourself to do it....

This being said, let us have a look at the central nervous system (CNS). In accordance with our behaviour, we can take the brain to consist of three parts: the rhinic, the limbic, and the supralimbic systems. The rhinic system matures in the embryo or foetus after only a few weeks. It regulates and controls the functions of the inner organs, and most of the smooth muscles, such as the iris and the sphincters. It also regulates the chemical processes and temperature of the body and thereby the living conditions for the whole nervous system. Its structures are symmetrical and their configurations and ways of functioning are wholly inherited.

The second group of structures, the limbic system, is concerned with expressing towards the outside world all vital inner urges such as hunger, thirst, and the elimination of their waste products: with the expression, then, of those inner needs which go on increasing until they are satisfied, after which they decrease or abate, until with time the need begins to grow again and the periodic cycle starts afresh. The limbic system thus expresses the needs of the rhinic system. It is also concerned with everything pertaining to movement in the field of gravity. It controls the symmetrical organs and limbs and the striated muscles. Most of what is generally called, or regarded as, instinct has its origins in this system. The greater part of its structure, organisation, and activities is inherited, but only the greater part: one tends to assume that instincts are fixed more definitively than is really the case. There are individual differences, or at least variations in degree, and there is some adaptability. Some, but not all birds can get used to building their nest from other materials than the ones they are accustomed to; but they find difficulty in adapting themselves, and some will fail altogether.

Instincts seem flexible or adaptable in a way which points towards what we usually call understanding and learning.

The third group of structures in the brain is concerned with the specifically human activities. This part, the supralimbic system, has developed much further in man than in any other living being. It grows on the other two systems and is closely connected with them. [It includes the association paths of the cortex and (using Brodmann's classification) the postcentral zones 5, 7, 18, 19, 20, 37, 39, 41, and the precentral zones 8, 9, 10, 11, 39, 41, 44, 45, and 46.] Its structures and tissues are inherited, but their functioning largely depends on individual experience. It is this system which is concerned with manipulation, orientation, and speech, and especially with conscious learning. It is thanks to the supralimbic system that we not only say and do, but we know what we say and do, and that we are saying and doing it, how we are saying and doing it.

This third part of the CNS has some distinctive peculiarities. For one thing, it is never completely coated with a kind of insulating substance called myelin. This means that it is never completely fixed, but remains capable of development at any time, i.e. that its activities can at any time and age be changed, widened, increased, improved. As opposed to that in the other two systems, the activity in the supralimbic system is asymmetrical, and this asymmetry is at the bottom of our ability to distinguish between left and right. This polarisation is heightened by the opposition of the thumb to the other fingers, and by the incongruence of our two hands. Primitive thought will be inclined to oppose contrasting terms in pairs, to think in terms of dichotomies, such as good and bad, good and evil, rich and poor, high and low, heaven and hell, right and wrong, black and white, day and night, big and small, warm and cold, and so on, although clear semantic thinking will recognise them not as opposites, but as anatomically determined pairs, and although they do not tally with reality: darkness is not the opposite of light, but the absence of it; and the relationship between hot and cold is more complex still. Anyone using such contrasts, is not appealing to our reason, but trying to trigger off latent atavisms in our thought. And much of our thinking is distorted, many of our actions falsified by our thinking and feeling in terms of opposites, instead of differences in degree.

For our purpose here, the main characteristics of the supralimbic system are, 1) that its connections with the thalamus are looser than those of the other two systems, so that it is structurally protected against the interference of strong emotions which might impair the clarity of thought. But thinking entirely disconnected from feeling would also be thought unconnected with reality; in order to select a thought, we must at least have the feeling that it is "correct," i.e. that it relates to our subjectivity. 2) the nerve paths in this system are longer than those in the two other systems. Although there are paths leading from it to the executive mechanisms directly, most of the actions which it impels are executed through the other two systems. This indirection brings

about a delay in the realisation of an action. "Think first" is not just a catchphrase. This delay between forming, as it were, the pattern of an action in the brain and the realisation by the muscles of the impulses that come from it, is long enough to make it possible to inhibit the realisation altogether. This means that we can for instance be moved to smile, and then either do so, or delay it, or reject it: just as when we think of something we might say and then consider it, and then either say it, or alter it, or refrain from saying it. The delay gives us time to realise, and this forms the basis of our imagination and judgement. It is the physical basis for what we have called awareness. It enables us to observe what is going on inside us when our intention to do something arises, as also the realisation of this intention: to check not only what we are doing, but also the way in which we are doing it, i.e., the way in which we are making use of ourselves. 3) that the function of the supralimbic system is largely formed by individual experience. Thanks to this, each of us can learn the language into which he is born, no matter whether it is the language of his ancestors or not; and this will determine the development of the muscles of his tongue, of his mouth, of his palate, his breathing and the whole speaking apparatus: to such an extent as to remain noticeable more or less in any other language he may learn later. Again, the structure of the language will influence the structure of his thinking, of his feeling, and hence of his behaviour as a whole. To sum up, I would repeat that the supralimbic system is concerned with the specifically human ways of manipulation, orientation, and learning, and with speech. This makes learning, or acquisition of new responses, a normal and suitable activity. It is as if it were capable of functioning with any possible combination of nervous interconnections until individual experience forms the one that will be preferred and active. The actual pattern of doing so is therefore essentially personal and fortuitous, and is inherently different from the genetically present patterns and from the strictly limited combinations possible in all other animals.

This very ability to form individual nervous paths and muscular patterns can also make for faulty functioning to be learned. The earlier the fault occurs, the more ingrained it appears, and is. Faulty behaviour will appear in the executive motor mechanisms. It will remain unless the nervous paths producing the pattern are undone and reshuffled into a better configuration. And this is what applied physiology of behaviour as applied by Feldenkrais, is about.

The way in which we conceive of ourselves, is derived from our feeling of the way in which our body is oriented in space. This self-image is of the contours of our body, of the relationship between its limbs, and, in other words: of spatial and temporal relationships and of our kinaesthetic sensations. Each of us acts in accordance with this image he has of himself: he eats, walks, sits, speaks, thinks, loves, and so on, in his own, particular way, and he identifies himself with this image. Hence the difficulty of correcting, or improving, a particular action. The difficulty

in changing a physical or mental habit is due only in part to heredity, and mostly to the necessity of displacing an already acquired habit.

To give you an idea of the lacunae or gaps in your self-image, try the following: lie down on your back and close your eyes. Mentally and methodically scan your entire body, from the heels upward. You will discover that you can contact with your attention certain parts more easily than others, and that you usually have no awareness of these other parts during an action. In fact, certain parts never figure in the self-image during action at all. Or again: close your eyes, stretch out your arms in front of you, and try to represent the width of your mouth with your forefingers. It is not unusual to discover an error of up to 300% in exaggeration or underestimation. Closing your eyes again, try to represent with your hands the thickness of your chest, first by showing the difference laterally, from left to right; then in back to front; and finally, vertically. You will be surprised to find that your judgement changes with the position of your hands and that for each attempt you produced a different result. When this deviation between the conception of the self-image and the objective or “real” facts is nearing 100%, the behaviour of that part of the body is generally defective. We believe that we act correctly, but we do not know. It would seem preferable to believe what we know.

I indicated at the outset that standards of correct behaviour or action can be derived from the way in which we are built. The lessons developed by Feldenkrais makes us aware of our latent sense for these standards, and teach us how to use them. In this respect, his method is essentially educative. That it is both prophylactic and remedial too, might, for our purpose here, be considered as a side-effect. It might be worth stressing here that it works, not by imitation of model examples, but by individual experience. The whole procedure is that of adult re-education and not treatment. It is a question of learning, and not of disease and cure.

Generalised improved behaviour results in the full exploitation of our possibilities. Most often, limitations imputed to a lack of suppleness are actually due to contraction of muscles and lack of conscious appreciation. These habits produce deformations and unbalanced movement. The degeneration of skeletal articulation automatically enforces a new limitation on the muscles which then seek to avoid uncomfortable or painful movement. Thus the vicious circle begins, leading to a deformation of the skeleton, the spine, the spinal discs, and so on. This makes the body prematurely aged, reducing the range and variety of movement and of all that goes with it. Experience shows that age has only a minimal influence on such limitations and that the ability to perform all movements allowed by anatomical and skeletal structure can be restored.

Before saying a word about the method itself, I should like to give you an example of the extent to which our lack of awareness goes: so that we sometimes do the very opposite of what we mean to do. It is

not easy to find an example which might apply equally to everybody, but let's try the following: Your hand is a very versatile instrument, you use it to do all sorts of things. Now, place the palm of your hand on your tummy, somewhere in the region of your navel, in such a way that, if you are right-handed, the fingers will be pointing to the left. Now, try to move your right elbow forward in such a way as to form a right angle between the lower arm and the back of your hand. If you don't succeed, put the palm of your hand on your thigh, or on the floor, or on the table, or somewhere, and convince yourself that it is possible to form a right angle between the back of your hand and your forearm. Now, retaining this right angle, try to replace the palm onto your navel. Observe whether you succeeded. If you didn't: did you observe the exact moment at which your hand snapped out of the posture you were meaning to retain and flexed in the opposite direction in order to place itself onto your tummy? At which moment, then, it did exactly the opposite of what you meant it to do? And how does it come about that your hand, which is that part of your body which you use most to perform voluntary movements, should act so independently of you as to contract its flexors of its own accord, while you were trying to maintain a contraction of its extensors?

Now for the method. Feldenkrais uses two techniques: individual teaching and learning in groups. The method is not specific in the usual sense of the word: a person is not "treated" for his individual deviations or complaints, but as one whole. What he learns, is to organise his body better—so as to get optimal results with minimum effort and no damage to the system. By learning to eliminate faulty behaviour or, as we have also called it, functional misdemeanor, he will find any complaints disappearing by themselves. Since everyone is disorganized in a different way, one can say that the method is specific in its effects on the individual person. Thanks to this, it can also be used in groups.

A lesson begins with the person or persons lying on the back. This position is meant to reduce as much as possible the influence of gravity on the body and thus free the nervous system. The reaction of the nervous system to the gravitational pull has become a habit, and while this remains, there is no means of bringing the muscles to respond differently to the same stimulus. Obviously then it is difficult to bring about any real change in the nervous system without reducing the effect of gravity. In due course, the lessons go through different situations up to sitting, standing, walking, balancing, and so on.

Groups may consist of people from the age of 15 to 60 or more. Their members may be suffering from different complaints, or from none at all. Here too, lessons begin with lying on one's back and learning to scan one's body, i.e. everyone examines attentively the contact of his body with the floor and gradually learns to detect considerable differences: points where the contact is feeble or non-existent and others where it is full and distinct. This develops the awareness of the location of the muscles which produce the weak contact through their permanent excessive tension holding parts of the body up from the

floor. A certain improvement in comportment can be achieved through muscular awareness only, but beyond no improvement will be carried over into normal life without increasing the awareness of the skeleton and its orientation. Here, the most difficult joints are the hip joints: the awareness of the location and function in these joints is non-existent compared with that of people who sit on the ground and not on chairs. The chair sitter is almost without exception completely out of place when locating the hip joints. Moreover, he uses his legs as if they were articulated at the points where he has them in his body image, and not where they are.

It is made clear to the pupil or group that the work is to lead to awareness in action: to the ability to make contact with one's skeleton and muscles and with the environment practically simultaneously. That this is not relaxation, for true relaxation can only be maintained when doing nothing. That the reduction of tension is necessary because efficient movement is effortless. The inefficiency is sensed as effort and prevents doing more and better.

The gradual reduction of useless effort is necessary in order to increase kinaesthetic sensitivity without which a person cannot become self-regulating. The Weber-Fechner law shows that this is so. This law states that for a wide range of human sensation and activity, the difference in stimulus that produces the least detectable differences in sensation is always in the same ratio to the whole stimulus. If, for instance, you hold a 20-lb. weight, you cannot detect a fly sitting down on it because the least difference in stimulus is between $1/20$ and $1/40$, and therefore at least half a pound must be added or taken away from the carried weight for you to become aware of it. If you hold a feather, the weight of a fly will make a great difference. The index for weight then, is about 1 in forty; for light, it is about one in one hundred and eighty; for sound, one in two hundred.

Obviously then in order to tell differences in exertion one must first reduce the exertion. Finer performance is possible only if the kinaesthetic sensitivity, i.e. the ability to feel the difference, is improved. The kinaesthetic sense is that by which muscular activity, weight, position in space, etc. are perceived. The organs concerned with this sense are diffused all over the body. The centre which detects acceleration is the labyrinth.

I ought to point out again that most of what we feel as effort, is unnecessary strain resulting from inappropriate action. In extreme cases, this might be compared to driving on a flat road with full steam in bottom gear—with the brakes on: with the corresponding damage to all the parts involved. The effect of such effort is rather like tripping ourselves up while trying to run.

An important feature of the lessons is the continued novelty of situation that is maintained throughout a course. Once the novelty wears off, the awareness is liable to be dulled and no learning takes place. To prevent sheer mechanical repetition, each configuration can

be taught in countless variations. Every lesson is arranged in such a way as to produce a clear change in sensation, an effect which will usually last for some time. This enables the pupil to find connections between different parts of the body, e.g. between his left shoulder and his right hip joint, or between the eye muscle and the toes, and to become aware of the influence of circumstances on his behaviour. Sooner or later he will begin to transfer what he has learnt from the action worked on, to others, completely different ones. The transfer of learning is essentially personal and differs from one individual to the other. One may feel the change in his speaking, the other in his way of attending and observing, and so on. All the lessons aim at improving mental and physical co-ordination, erect posture, and making all action easy—flowing, smooth, and reversible.

To reduce useless effort, the pupil or group is repeatedly encouraged to do everything a little less well than is possible when trying hard; to slow down, to use less vigour, to act less gracefully, etc. They are sometimes asked to do their utmost, and then deliberately to do a little less: this enables them to feel progress while not tensing. The sensation is, that one can now do better, and could do better still: which is inductive to progress. Results which might otherwise need hours of work, can in this way be obtained in twenty minutes. We might also say: the pupil is not taught a particular action, not to achieve a certain goal but how to act, and how to learn.

This means that he learns to appreciate and differentiate kinaesthetically not the mechanical quantity of effort, but the quality of performance as a criterion. His attention is directed to his body both in its parts and as a whole. His image of it and of its behaviour will increase in clarity and precision, and so will his feeling of the space around him and of the orientation of the body in it. Most heads show clearly with which part of the space around them they rarely make contact. And the carriage of the head is characteristic of the general bearing and manner of acting of each person.

The body can and should be organised in such a way that it can start any movement, i.e. forward, backward, right, left, down, up, turning right or left, without previous arrangement of the segments of the body, without any sudden change in the rhythm of breathing, without clenching the lower jaw or tensing the tongue, without any perceptible tensing of the muscles of the neck or fixation of the eyes. In this state the head is not fixedly held in space but is free to move gently in all directions without previous notice. If these conditions are preserved during action then even lifting the entire weight of one's body is not sensed as an effort. Bend gently your right forefinger and observe the sensation of no effort. Bend gently the wrist: the effort is the same as while bending the finger. Again, bend the elbow, or gently lift the arm, lower and lift the head, the trunk: the sensation of the effort is the same as lifting the forefinger. But the work done to lift the finger is roughly 100gr.cm, that of the wrist 1000gr.cm, that of the trunk 500000 gr.cm. The sensation

of correctly made movements does not increase proportionately to the work done within such wild limits as 1 to 5000, and for that matter even 1 to a million, as the sensation of effort is not a measure of the work done but an indicator of the degree and quality of organisation producing the effort. This is in correspondence with the structure of the body. The size and strength of the muscles—the number of their fibres, the size of their cross-sections—go increasing from the periphery (here: the finger) to the centre of the body; the rate of effort is therefore equal in all parts at work. To lift or lower the trunk, the muscles of the pelvis, such as the buttocks (gluteals) and the thigh muscles with their enormous cross-sections (as compared with the muscles moving the finger) come into play. The sensation of no-effort in action is present not at no-work, but at correctly co-ordinated work.

A more precise formulation of correct action is the following:

1. The trajectory of each bone of the skeleton when the latter moves from one position to another—such as from lying to sitting or from sitting to standing—is the same as if the skeleton were pulled up by the hand or the extended arm into one of the positions mentioned, i.e. the shortest trajectory possible.
2. The muscles operate in such a way as to bring about the final position dictated by the trajectories explained.
3. The intensity of mobilisation in the ideal act is the same throughout the musculature, and the stress in each muscle is proportional to its cross-section.
4. The three conditions together fulfill the principle of Maupertuis in theoretical mechanics, i.e. the principle of least action.
5. The total work expenditure is a minimum.
6. At each intermediate instant and position, the rate of increase of entropy is also a minimum.

These conditions are sufficient to write the differential equations for each bone and muscle, and the integration of them for the whole body would yield all the information necessary for each articulation to produce the correct movement.

Feldenkrais and Katzir have at one time written the equations in full. This is a more explicit way of saying what I meant earlier on when I said that the human body is built in such a way that it can resist gravity without effort, and move in the field of gravity with next to no expenditure of energy. Regarding this as “correct action,” all correct action will be reversible so long as there is somewhere contact with the ground.

Language being serial, we have to describe one after the other what is in fact simultaneous when we act. Action is integral; but it is essentially made up of four elements, though the quantity and quality of their involvement in an action will differ from one individual to the next. They are: movement, sensing, feeling, and thought.

Under thought, we include all the functions of the intelligence, e.g., the opposition of right and left, right and wrong, etc.; understanding;

knowing that one understands; recognition of rules and laws; classification; knowing what one senses and feels; remembering each and all of these; etc.

In addition to the familiar ones, such as anger, joy, sorrow, boredom, anxiety, feeling also includes: inferiority, ambition, depression, the passions, indifference, impatience, fatigue.

As well as the familiar five senses, sensing also includes the kinaesthetic sense, to which belong, amongst others: pain, orientation in space, the sense of time, and of rhythm.

By movement, we mean all the changes of the body as a whole or in its parts in space and time, in its state as well as in the configuration of its parts, such as breathing, eating, and drinking, speaking, the heartbeat, circulation, digestion.

In order to think, one must be awake and know that one is awake and not dreaming. One must therefore be able to feel and know one's position in relation to gravity (orientation in space). There can, therefore, be no thinking without movement, sensing, and feeling.

In order to feel, one must be in a certain position and in some kind of relationship towards some person or object. Feeling therefore includes: movement, sensing, and thought.

In order to sense, the sense in question must be responding to a stimulus. This involves orientation. Sensing will therefore include movement, feeling, and thought.

In order to move, one will need at least one of the senses and, in using it, one will necessarily also feel and think.

Theoretically, any one of these elements or parts might serve as a point of departure for education, re-education, treatment. But among the four the role of musculature is so preponderant that if one were to erase its patterns or configurations in the motor cortex, the other parts of the configurations concerned would dissolve. Now, the motor cortex lies close to or above those parts of the brain in which associative processes take place (in some places, the association paths and fibres are less than 50 to 100 cells below or away from the motor cortex). As impulses and excitations of the brain have a tendency to spread to, and irradiate, neighbouring tissue changes in the motor cortex will effect corresponding changes in thought and feeling.

At any given moment, all the parts (including chemical and hormonal processes) will form one integral whole which the body will at that particular moment express. We have seen that we become aware of such an integration insofar as the muscles have a part in it, and that a change in the musculature will work corresponding changes in the motor cortex, and spread thence. Just as the fear of falling will produce the body pattern (and of course the feeling) of anxiety, and anxiety the body pattern of the fear of falling. It is perhaps clear now why Feldenkrais' discovery that chronologically the primary human response is the fear of falling, and that this is a response to gravity, is of such importance. It has

led him to work out the consequences some of which I have been trying to set out here.

Speech we understand by interpreting its symbols. Behaviour in relation to gravity and its muscular patterns are verifiable without interpretation. By changing such a pattern, the configurations which correspond to it in the motor cortex are necessarily affected, dissolved, and changed, and so will the thoughts and feelings connected with it. The pattern will thus lose its foundation which had become habitual, and habit will have lost its strongest support. Now it can be changed deliberately.

These are, briefly, the foundations of Feldenkrais' method, and a sketch of how it works. Faulty patterns of action, being deviations from the functionally correct or optimal mode, are brought to a person's awareness, which is tantamount to giving him the means to correct and improve them, if he wishes to do so, and in his own way. That is why I said earlier that he is not taught something, but how to learn. That the motives of faulty action can be aware of the fault, we may regard incidental. But as faulty action often thwarts its own purpose, and can lead to organic damage and to a proclivity to common illnesses, education by Feldenkrais' method can be considered not only as remedial, but as preventive and, if the whole man is to move at once, as educative in the widest sense of the word.



Adia Day 2

**Developmental Movement
Observation**

Tiffany Sankary and
Matty Wilkinson



Adia Month 6 Day 15



Adia Month 8 Day 13

Somaesthetics and Beauty: Richard Shusterman

Interviewed
by Hermann Klein

In the following interview, philosopher Richard Shusterman answers a few questions for *Feldenkrais Zeit*, the German Feldenkrais journal, whose theme this year is “Beauty.” *The Feldenkrais Journal* is delighted to publish the English version. Thanks to Hermann Klein, Editor at *Feldenkrais Zeit*, and Shusterman for their eloquence and candor in this thought-provoking precedent for cross-journal publication.

You are an internationally renowned academic but also a Feldenkrais practitioner, and you don't hide it. How did you come to leave your writing desk and scholarly pursuits?

I never really left the writing and teaching of philosophy. Even during my Feldenkrais training (New York 1998–2002), I was the head of the philosophy department of Temple University in Philadelphia. At that time, I had to hide from my department colleagues the fact of my Feldenkrais training, especially because it meant that I was absent from my office many days because of the training. I did not dare tell my philosophy colleagues why I was absent; I thought they would never accept my motives and interests in such practical bodywork. They were even suspicious that I was interested in the body in a theoretical way. Now, after two major books on somaesthetics with Cambridge University Press—*Body Consciousness* (2008) and *Thinking through the Body* (2012)—I hope my philosophical colleagues can appreciate my somatic approach. In any case, I am no longer in my old department. I was offered an endowed professorship in the Humanities at Florida Atlantic University, and there I set up a Center for Body, Mind, and Culture where I am not limited by the conventional attitudes and narrow disciplinary boundaries of academic philosophy.

Coming out of pragmatism (James, Dewey) and often referring to Foucault (and Wittgenstein), and reaching as far back as Greek philosophy, you are asking for a new, embodied approach to philosophy. You are asking that we rediscover the body practically and claim, for instance, that it would be helpful for philosophers to practice things like the Feldenkrais Method of somatic education. How are your experiences with colleagues?

Yes, my pragmatist orientation in philosophy convinced me that the practical study of body functionality could give me more insights and confidence in somatic theorizing. Several examples in my books derive from personal experience of teaching the Method. As for colleagues and students, some of them have been stimulated by my writings to practice Tai Chi or Yoga or even (but unfortunately more rarely) the Feldenkrais Method. Many philosophers, however, remain hostile to the idea of introducing bodily practices into their philosophical work. They think of theorizing as fundamentally opposed to practice, and thus worry that practice will ruin the logic and purity of theory.

And, reciprocally, how are your experiences with Feldenkrais practitioners or trainers? Would you say that it could or should be of equal importance for Feldenkrais practitioners to study somaesthetics? Should theory be part of Feldenkrais training?

My respect for the autonomy of the Feldenkrais Method and for the single-minded commitment of its trainers is too strong to allow me to advocate a revision of their established training practice that would incorporate my theory of somaesthetics. I do think, however, that somaesthetic theory can be useful in situating the Feldenkrais Method within the wider study of the body's relationship to our social and cultural lives and to our practice of the art of living. It can help show how the Feldenkrais Method contributes to understanding and improving life as a whole rather than just to improving our somatic performance. Somaesthetics offers one way of helping to renew Feldenkrais theory and avoid its becoming stuck in the past because of its justified admiration for the genius of Moshe Feldenkrais. The Feldenkrais Method is a remarkable and remarkably logical and scientifically-grounded method; it should not be turned into a cult.

Somaesthetics is about aesthetics and as such addresses the arts. Do you still use the term "Beauty"? Does any aspect or conception of "Beauty" have importance in your philosophy and practice?

Yes, beauty is an important concept for me. It even appears in the title of the first book that won me a large international audience, *Pragmatist Aesthetics: Living Beauty, Rethinking Art* (1992), which has been translated into 14 languages, including German—as *Kunst*

Leben: Die Aesthetik des Pragmatismus (Fischer 1994). You'll notice that "beauty" is dropped out of the title in the German edition and the French translation (Minuit 1992) also omitted the term "beauty." It was not a fashionable concept in the art world and in the academic world at that time. Aesthetics was focused on art rather than beauty, perhaps because beauty was too easily reduced to kitsch and superficial ideals of the advertising world. Actually, my original title for the book in English was *Living Beauty, Rethinking Art: A Pragmatist Aesthetics*. But my editor insisted I reverse the title and subtitle because "Living Beauty, Rethinking Art" sounded too vague and dreamy while "Pragmatist Aesthetics" would be clearer in meaning to an academic audience. Although beauty is an important concept for me, I don't try to define it because I do not think it permits a univocal definition. There are many different kinds of beauty, and I don't see how they fit neatly under a meaningful common denominator. Different traditional definitions of beauty—such as the classical ideal of unity in variety or Stendahl's "promise of happiness"—capture different aspects or kinds of beauty. No conceptual phrase captures all the variety of beauty or its power. Moreover, describing and defining beauty in a complex theoretical way typically diminishes the power of its pleasure.

Do you see any connection between Feldenkrais work and Beauty? I remember Moshe Feldenkrais, approximately: "Making the impossible possible, the possible easy, the easy aesthetically appreciated."

Yes, I think there is a connection, but in English we usually formulate the last phrase as making "the easy elegant." Somaesthetics argues that through better body awareness we can not only make our movements look more attractively smooth and elegant, but we can also experience the beauty we feel in making such better movements. Better body awareness enables us to be clearer about our feelings and thus to enjoy them more. But the value is not limited to pleasure. Better body awareness enables us to better recognize and manage our pains so that we can better manage, diminish, or avoid them and escape further injury.

Voluntary & Involuntary Movements: Somatic Practice in Contemporary Art

Helen Miller

Interviews with

Jay Scheib,
Audra Wolowiec,
Aki Sasamoto,
Helen Mirra, and
Julie Carr

¹ Peter Brook, "Letter of Invitation," accessed July 31, 2016, <http://www.feldenkraismethod.com/his-life/peter-brook-moshe-feldenkrais>.

In 1978, Peter Brook, the innovative director and filmmaker, invited Moshe Feldenkrais to meet with actors at the International Centre for Theatre Research in Paris. Brook believed that Dr. Feldenkrais could demystify elements of acting often attributed to inspiration or genius by teaching actors how to cultivate a better understanding of their own bodies. "The very basis of the work of any actor is his own body," wrote Brook in his announcement for Feldenkrais' visit. "He studies the body with a precision I have not seen anywhere else."¹

Since that celebrated collaboration, the method Feldenkrais developed has grown an international following among professional actors, dancers, and musicians. But what about artists whose primary means of expression is not the body, who work off-stage or behind the camera? What is the importance of the body's movements for visual artists, or writers? The collaborative nature of the arts, their shared history, theory, and pedagogy, and the broader culture's adoption of mindfulness and mindful physical fitness, mean that embodied experience has become an explicit concern across creative disciplines.

The five artists interviewed for this issue of *The Feldenkrais Journal* work in a range of media, including theater, film, sculpture, poetry, and more hybrid forms. They each foreground the body as a form of lived experience, exploring different dimensions of awareness in their work. For some, presence of mind and body manifests in states of equanimity—in

walking meditation or immersive sound recording sessions, for example. Others find physical experience closely bound to an active emotional or cognitive engagement.

Political engagement is implicit as each artist invites participants—students, professionals, and audience members—into relationship. By creating new contexts in which people can individually and collectively explore the precise shape of themselves, each other, and the body politic, their work facilitates connections between self-awareness and social awareness and builds on a long collaboration between somatic learning and the arts.²

When I reached out to them to propose doing something for *The Feldenkrais Journal*, Jay Scheib, Audra Wolowiec, Aki Sasamoto, Helen Mirra, and Julie Carr expressed an appreciation for and curiosity about the Method. Setting this group of open-ended interviews against the backdrop of Feldenkrais was promising from the start. We explored multiple points of contact between each artist's practice and the practice of body-mind awareness. I relished pursuing, in these more elusive domains, the opportunity that Peter Brook saw early on, for Feldenkrais to demystify the inner-workings of art, and for contemporary art, in turn, to illuminate the Feldenkrais Method. The exchange proved unexpected and indirect, not unlike a Feldenkrais lesson.

² I mean “precise” as Brook used the word to describe Feldenkrais’ research and borrow this sense of “shape” from poet Julie Carr, who in 2012 convened the “Shape of the I,” a conference exploring the persistence of personal voice and narrative in experimental poetry. Accessed July 31, 2016, <https://www.poetryfoundation.org/harriet/2012/04/the-shape-of-the-iconference-boulder-anddenver/>.

Jay Scheib is a director, designer, and author of plays, operas, and live art events. Internationally known for works of daring physicality, genre-defying performances, and deep integration of new (and used) technologies, Scheib was a 2011–2012 Guggenheim Fellow and 2012 OBIE Winner for Best Direction. Through extended residencies and professorships, Scheib has developed Motion Theater, a set of research and rehearsal techniques for the creation of motion-driven theatrical compositions.

Interview with Jay Scheib

[Miller] “*So much of who I am is how I was raised.*” Which one of your characters says this?

[Scheib] This is a line from *World of Wires* (2012) spoken by the character Fred Stiller. It’s actually quoted from the first sentence of an interview I read one day during the rehearsal process—an interview with the trailblazer farm-to-table chef from the Fat Radish. Text is really just a tool and I gave it to Fred Stiller to use while he’s trying to seduce his secretary Isabelle. It worked in part because it has that “charm of the authentic” ring to it—it just seems so personal. This great sequence of illogic ensued, in which Isabelle, totally flattered, spills her drink on herself and then proceeds, to everyone’s great if befuddled enthusiasm, to take off her dress. Fred and Isabelle end up a slapstick mess of arms, legs, and wet dress.

The sentence is also profoundly ironic, in so far as it anticipates Stiller’s later crisis. Fred Stiller wasn’t “raised” at all, he was programmed—he’s part of a computer simulation—but at the moment of speaking, he knew neither how false nor how painfully true that sentence actually was. It’s also important to mention that the sentence reminded me, as I first read it, of the actor playing the role, Jon Morris. Jon used to be a platform diver and is



Fig 1

Performance documentation of *Platonov, or the Disinherited*, 2014, a live cinema production adapted and directed by Jay Scheib at the Kitchen, New York City. Top from left: Sarita Choudhury, Mikéah Jennings, Laine Rettmer. Bottom from left: Jay Scheib, Laine Rettmer, Mikéah Jennings, Jon Morris, Sarita Choudhury, Rosalie Low, and Ayesha Jordan



Fig 2

Performance documentation of *Bellona, Destroyer of Cities*, 2010, a theatrical production involving live film adapted and directed by Jay Scheib at the Kitchen, New York City. From top: Natalie Thomas, Jon Morris, and Sarita Choudhury

basically a kind of daredevil madman, wildly physical—but deep down inside he's a preacher's son—and it's that thing in his past that makes him a force.

The Feldenkrais Method explores this persistence of how we were raised. Although Feldenkrais practitioners might put it differently: so much of who I am is how I move, we might say.

That basically describes how I propose to understand character—as the sum total of everything a character does. I'm interested in how a character does what he does and obsessed with making his every move visible. Behavior is defining, which is not to say that it's consistent or predictable. Performers are often concerned when I offer physical actions or put them in situations that seem to require that they will have no choice but to respond in a manner that seems contradictory to their understanding of character or psychology. They speak the dreaded sentences: "I don't think that my character would do this," or, "My character wouldn't do that." But in life we are always doing things that we wouldn't do—if we had any sense!

Character is a matter of how we move, but what moves us may not always be particularly evident. I'm into unwiring, unhinging. Characters often need to be liberated from the text. What to say, once they get out they never go back! For me, a character has no volition. A character begins as literature, which is paltry and deadly boring—if a character remains literary they simply drown in trying to sound good and appear consistent. I am often accused of not caring about text. Though I usually disagree, the truth is that they are right. I don't. Nor do I care about characters. I only care about people. People and moving images. Images in motion and people that move. **[Fig 1]**

Moshe Feldenkrais focused on movement but also spoke a lot about the relevance of early childhood experience in shaping it. So that in gaining a better understanding of how we move, and might move differently, what we're really doing is rewiring our upbringing. I'm curious how your background—in physical theater, for instance—informs your current work.

I grew up in part on a tractor—which meant long boring days tracing the contours of fields with plows, mowers, cultivators, planters, combines, disks. Enormous fields and terraced hills and the creep of seasons—one slow visual assault from spring to snow—one spatial arrangement after another. It was boring driving along these endless rows. I was not a fan of country music and was forced to fantasize wildly.

Many of my other memories are connected to physical exertion. I spent much of my youth figuring out how to lift things that were really too heavy for me to be lifting. Physical exertion was a way of life. And now, duration and intense physical action are immensely central to my work—when an actor engages in a physical action that will end in

exhaustion there can be no room for affect. The sound of a performer straining physically to accomplish a task or heaving because she is out of breath carries an unmistakable reality. Contesting fiction with real physicality is a staple.

Where does improvisation come in?

Improvisation for me is yet another means of stacking the deck in favor of reality trumping fiction. I try to create stage situations that will elicit unscripted reactions. I try to create problems that require performers to respond in ways that push their facilities to the fore. Walking in heels on a mattress and needing to pour a glass of water, or repeating a physically challenging task to the point of exhaustion, or an enormous collapsing wall of cardboard boxes, as in *World of Wires*, sets an indeterminate sequence of events in motion. When things are guaranteed to go awry performers are required to react, to be human, to really respond, wholly and completely.

So abstract or nonverbal gestures—like walking funny—can propel the narrative or direction of a piece?

Most of my work is about the human condition, which is in large part nonverbal and, I would venture, nonsensical. I am usually concerned with the more extreme regions of experience—this is what makes us human and in some cases inhumane. My obsession, then, as an artist, is to make tangible the ineffable—that which is otherwise eternally sensed but perhaps rarely seen and certainly never adequately described. I am utterly fascinated by the utterly ineffable. Nonverbal gestures that nonetheless resonate with the material, and resonate somehow with our lives, invariably change our understanding—and yes, yes! the direction of the piece.

More and more, I realize that I can never tell what something in the work will actually turn out to be about. The galvanizing moments in a production are so easy to miss, particularly the nonverbal gestures and the abstract situations. I try to make no assumptions as to what will cause meaning to emerge and how. There are always these germinating events or gestures that can radically shape an entire production. It could be a costume. It could be a piece of music or text. What's important is that I stay really sensitive so that when a threshold event emerges, I have the freedom to chase after it—and allow the event or abstraction to be consequent—even if that means that my understanding is completely overturned. I try to remain sensitive enough to notice and courageous enough to be changed.

How do you communicate what your characters are going through if not through text or dialogue?

3 Improvised comic dialogue or action.

I work with the performers to develop physical constructions that present their interior worlds as elegantly as dialogue, or a costume. I look for gestures that are extreme extensions of what's happening subtextually or metaphorically in the narrative. I'm constantly looking for new ideas and new vocabularies to serve that purpose. I call them *lazzis*³ because I'm borrowing heavily from the traditions of *Commedia dell'arte*. Sometimes I'm interested in strictly comic routines, but I also try to develop routines that will interrupt the flow of an event while simultaneously realigning the narrative. In every case I try to develop *lazzis* that express something intrinsic about the world of the play or opera, as well as something specific about the crisis of the particular character. In *World of Wires*, the drugstore robbery *lazzi* results in the shooting death of a young woman who simply wanted to test a theory about simulation. It's a tragedy. "The Garden of Eden" *lazzi* begins as a humorous gesture about the evolution of society with all of the actors naked in a dressing room. When one of them eats an apple, mayhem ensues, and another actor ends up bashing his brother's head in with a rock.

I'm thinking of the dancer from Bellona, Destroyer of Cities (2010). One of the first times we see her on-screen is up-close—she's dancing around in front of the camera, zooming in and out. I'm struck by how much this character exists in movement, dance, and visually.

As we are talking about movement and motion and ultimately the drama-turgy of physical intelligence, it makes perfect sense to me to think about June in *Bellona, Destroyer of Cities*. June is a fourteen-year-old girl and the play sort of revolves around her crazy explosive energy. It's the energy of an adolescent girl who is just discovering desire, just discovering her body as a kind of aching, complex array of bodily sensations. I guess, to put it simply, June really wants to have sex and it's making her insane.

So we spent a long time looking for physical forms, gestures, phrases, and actions that would make that anxiety, despair, terror, and thirst for pain, or sex, or who-knows-what-pleasure *tangible*—not just understandable but actually tangible. And so we introduce the character in the bathroom where she is dancing for the camera in her dress that may have fit a few years ago but is now sort of too short and her legs flash and her aggression becomes greater and more out of control, and then her dad walks in on her and in her crazy way she tries to hold the door shut but just ends up in his arms and then falls on the floor at his feet as her mother walks in. Discord from the speakers, a look of embarrassment from the dad, horror, and an immediate look of "I didn't see that" on the face of the mom, and June sets about trying to pull the hem of her skirt lower and lower as the whole thing swirls toward catastrophe.

I was collaborating with Natalie Thomas, a performer with a significant background in dance. This collaboration made it possible to really pursue and privilege physical intelligence over psychological acting first and foremost. Jon Morris, who I mentioned earlier, a circus performer and

physical theater artist, played June's brother. Out of this collaboration we were able to create an intensely physical performance that allowed the process a great deal of fluidity when it came to pursuing the precise expression of that anxiety, the loneliness and short fuse of those particularly intense states of being. **[Fig 2]**

Audra Wolowiec is an interdisciplinary artist based in New York. Her work oscillates between sculpture, installation, text, and performance with an emphasis on sound and the material qualities of language. The recipient of several residencies and grants across the U.S. and internationally, Wolowiec has shown at MASS MoCA, Socrates Sculpture Park, and Art in General. She currently teaches at Purchase College, State University of New York, and Parsons School of Design.

Interview with Audra Wolowiec

[Miller] *I'm curious about Breathing Room (2012), a site-specific installation in which you attached plastic bags to warehouse windows so that they filled and emptied with the natural airflow. What inspired you to make this piece?*

[Wolowiec] This installation came out of explorations with materiality and a sense of play. At the time, I was making large installations with found, recycled materials. I was interested in ecology, accumulation, and traces of previous use. So I would gather discarded objects from the street or just lying around that were made for easy consumption—Styrofoam cups, bike tubes, plastic bottles, bags—and make landscapes with them, lining them up, stacking, cutting, and reassembling them. *Breathing Room* was a big breakthrough for me as it was directly dependent on the existing architecture and drew attention to the body and breath, which have since become strong themes in my work. **[Fig 3]**

In drawing attention to the movement of the air, Breathing Room in effect transforms it into another excerpt, outtake, or found element of the urban landscape, not unlike the plastic bag itself. I imagine both the air and the bag becoming more apparent, audible, as a result. What did the installation sound like?

The rhythm of the installation came in staggered waves: panting, deep sighs, exuberant pops, subtle inhalations. There was a hesitance to its cadence. But the most surprising effect of the installation was that it often went unnoticed. If you saw the bags when you first entered the room, it was like, why is that plastic up there on the window? The deflated bags resembled a shoddy repair job. Then, as the air shifted from outside to inside, the bags moved, animating the space, possessing an animism that was at once visceral and unexpected.

How did people respond? Did you notice anyone exaggerating or somehow paying attention to their own breathing at the opening for Breathing Room?

The realization that the sound resembled breathing drew people into the work. They paused, watched, and listened closely. It seemed to have a quieting, peaceful effect, although it also created the opposite, an

experience of being out of breath or gasping for air. Maybe it contributed to a heightened sense of interior weather.

Do you remember when you first noticed the sound of the bags filling with air?

The first time I heard the sounds of the bags was in my studio, playing around with the plastic, holding them next to the window because of their translucency. I wasn't thinking of breathing at all but it immediately became clear.

I read something this morning by Thoreau: "To affect the quality of the day, that is the highest of the arts." There is something alchemical and hard to define that happens when our awareness is heightened by something simple and close-at-hand, especially if it has to do with the body.

In terms of the day-to-day, has your sense of breathing changed at all since you made this piece?

I have become quite attuned to the sound of breath and the rhythm of breathing as a means to connect people. On an everyday level, I hum while riding my bike now. I try to feel how sound travels through my body, how it resonates.

This idea of breathing as a means for connecting people makes me think of Warm-up (2014). Can you tell us about the research, or fieldwork, you carried out for this piece?

I'm often seeking intimate, shared experiences in my work. *Warm-up* started as a collaboration, developed into a sound installation, and was eventually presented as a live performance featuring a chorus of voices. I started by recording actor and singer friends with established vocal warm-ups—hums, coos, cries, repetitive sounds, voice without language. I would go to their homes or studios to record their routines, sometimes practicing with them, making noises that sounded like motors, cats, or barely audible clicks. Then later, back at my own studio, I would edit and compile the sounds. Everyone was really generous and there was always a lot of laughter on the tracks.

For the installation, I embedded speakers in a series of two-by-fours, which I leaned against the wall at different angles. I wanted to create a sculptural experience that felt as unfinished and corporeal as the voices themselves. The bare wood was casually arranged and the sounds overlapped in loops of various lengths, creating a constantly changing, "chance" choreography. You could stand back and listen to the sounds of voices emanating from multiple beams or you could get up close, placing your ear to one speaker, then another, and so on. **[Figs 4, 5]**

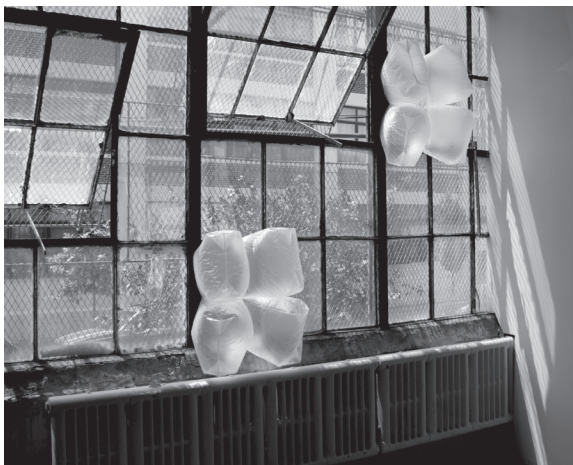


Fig 3
Installation shots of Audra Wolowiec's *Breathing Room*, Studio 10, New York, 2012, an architectural intervention with natural airflow



Figs 4, 5
Installation shots of Audra Wolowiec's *Warm-up, REVERSE*, New York, 2013, a sound installation with vocal recordings of actors and singers warming up to perform (Sonia Villiani, Tara Pelletier, and Davi Cohen)



The question of how to guide a person or group of people through intimate, embodied experience is a familiar one for Feldenkrais practitioners. Even in leading an Awareness Through Movement lesson, where the structure of the lesson is more or less predetermined, the choices you make regarding tone and pacing—your receptivity, confidence, and willingness to improvise—are all totally “audible.”

I tried a few of the Feldenkrais breathing lessons. It's incredibly relaxing and quite satisfying to feel the tension release from my shoulders. The thing I noticed about the directions is the challenge of how to clearly describe small movements that we usually take for granted. You have to be quite descriptive. I loved visualizing the mountains and hills that formed under certain parts of my body. I also became aware that I was initially focusing on one singular movement—like, just the leg lifting—as opposed to the holistic approach of feeling the entire body—the connections, how every other body part is responding. It reminds me, while typing this, that I should be feeling my back and feet and knees and not just my fingers tapping the keyboard.

I'm curious about the possibilities that have opened up for you as a result of paying attention to how you breathe, and about the significance of voice and speech for you personally.

It seems especially relevant to my recent work that I grew up with a noticeable stutter. It's both a physical and neurological speech condition, which has taken most of my adult life to understand. I was often unable to control when words would or wouldn't form—blockages, stops, and elongations became part of my vocabulary. I used to think of it as a terrible problem but over the years, I've learned some tricks and how to accept my strange speech patterns. Breathing plays a large role in how to ease the flow of language, as do certain visualization techniques, extending words into each other and speaking from a centered position. Awareness of the body and the breath is another key element of speaking well. When I am able to both hear and feel the words as they are forming, that's when speech is most fluent.

Aki Sasamoto is a New York based, Japanese artist working in sculpture, dance, and performance. Her installations are careful arrangements of sculpturally altered found objects, which model and facilitate her improvisational lecture-performances. Sasamoto shows at both visual art and performance venues and has recently presented work at the Mori Art Museum in Tokyo, Jeu de Paume in Paris, and SculptureCenter, the Kitchen, and the Whitney Biennial in New York.

Interview with Aki Sasamoto

[Miller] *Almost a decade ago, New York's New Museum of Contemporary Art reopened with Unmonumental: The Object in the 21st Century, an exhibition of colorful, sculptural assemblage. A readymade bicycle by Rachel Harrison held the flag for the show—a few synthetic sheepskin rugs and a poster of Mel Gibson. When it first gained recognition around the same time, your work seemed to turn on this typically cool strain of millennial sculpture, adding a dimension of vulnerability, lyricism, and*

personal experience. I'm curious how you conceive of your relationship to the object in 2016.

[Sasamoto] Sculptures and objects are metaphorical stand-ins. Topics close to the heart are hard to pin down, even within the most private self. So I try to fool myself with these stand-ins, to lure in the targeted emotion. It softens me to enter into the stories.

The story about your mother visiting you in New York, which formed the heart of a performance you workshopped at Harvard in 2012, could have easily stood on its own. But you're not just a storyteller. You also dance, box, and talk pop psychology. You even do math. At that same show in Cambridge, you used Calculus equations and a wooden-stool-turned-abacus to recount, so to speak, the breakdown of a recent romantic relationship.

Different things are related due to the shared timeframe in which I'm interested in them. Multiple interests intersect in my day and in my mind. Only when they share the physical space and time of heightened awareness—in other words, performance—they start to relate more intensely. Possible meanings are floating in daily life but I try to ignore them to stay sane. I intentionally assign art/installation/performance gigs to take care of the meanings that come out of the layering, which happens whether I want it to or not. Millions of coincidences occur anywhere at any moment but only a few get picked up when I pay attention.

I stay myopic when I improvise or perform. The tunnel vision helps me to act assertively, so that my next move is convincing. Objects also help in this case, since they are limiting. You can also say they are guiding. For example, if I look at the space below a hanging object, and focus only on that negative space, putting myself through it seems like the only choice. **[Fig 6]**

*That reminds me of some advice I recently received from a fellow Feldenkrais practitioner. I was having trouble staying focused while giving a one-on-one Functional Integration (FI) lesson. If I couldn't see exactly what was going on with a client, my mind would cloud with self-doubt, making it even more difficult to discern the organization of her skeleton. My friend suggested that I try asking one question at a time, and repeatedly return to the effort or constraint of a single simple inquiry. I might ask, for example: What happens when I gently try to lift her right shoulder blade from the table? If some other part of her body lifts at the same time or in response, exactly which part? Now, what happens when I lift her left shoulder blade? And then, if her chest expands, in which direction? Which side lifts higher? Where does this, *this* specific rib begin to wrap around the side of her body? Communicating without words, through touch, can be daunting, overstimulating, or paradoxically intangible. This little trick has helped to ground the process for me.*

You lead non-verbal improvisation and collaboration in both performance and workshop settings. Do you have any thoughts on the difference between improvising alone versus together?

I rely on inner impulses and actually prefer improvising alone. I have a hard time improvising together, unless it's a different medium, like improvising with music or poetry. With another body, I can only improvise with somebody I have been performing with for a while. Otherwise, it's hard to go internal and we end up staying in a getting-to-know-each-other phase.

I have been dancing for Yvonne Meier, who does *Score*, which uses a set of simple instructions, actions, or images to shape a movement improvisation. It could be as simple as one word or a sentence. The words provide inspiration but they are also intended to restrict the dance, with the idea that more will come as a result of the limitation. I often borrow this *Score* thinking, giving my partners a short phrase or string of images to play with. Among other things, it helps to keep us on the same page.

When I lead a short-term workshop, I tend to pick a keyword I'm interested in at the time (like beauty contest, rumors, body, etc.) and invite those with skills and knowledge to share around that theme. In the past, I have invited a datologist, detective, bodybuilder, and scientist, and made workshops around their specialized knowledge. That way, people are introduced to what may become an interesting parallel to their practice, and I also take advantage of my own workshop to feed my curiosity.

Your discipline and rigor are always apparent but this great curiosity also has you flitting and floating—or winding and climbing—your way around a room. Are you aware of the audience tagging along?

I tend to ignore audiences though I am aware of their presence. Their presence heightens my inner intensity and I can go even more internal. I'm never very concerned with what the audience might be thinking or doing but I don't trip over them.

There are many Feldenkrais lessons that can improve your chances of falling gracefully. What makes you so good at hanging?

Desire to go against.

You're extremely funny for an avant-garde performance artist and the humor in your work is accessible. Do you consider your performances to be a kind of stand-up?

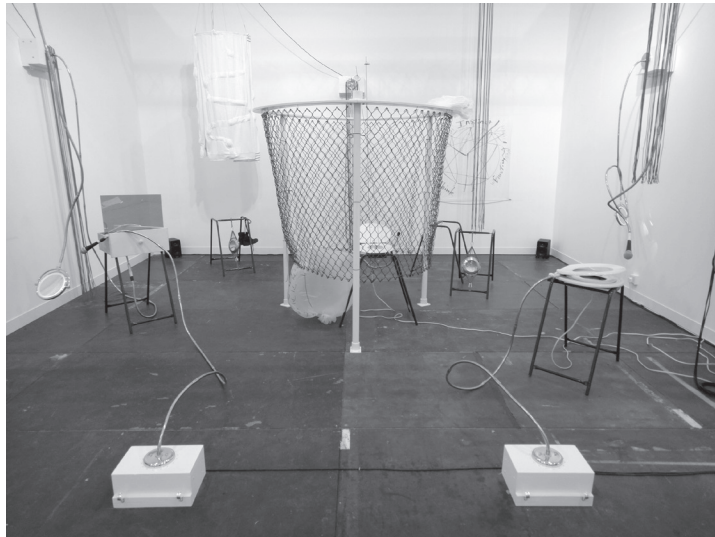
In the last few works, there has been a comic touch, but I think that's due to the topics I happen to be interested in lately. I respect comedy, so it's nice if the work rubs against humor but I doubt it works as stand-up. At least, when I took some of my episodes to a comedy club recently, it definitely failed.



Fig 6
Aki Sasamoto, *Food Rental*,
High Line at the Rail Yards,
New York, 2015

Figs 7, 8
Aki Sasamoto, *E_O*, Take
Ninagawa, Tokyo, 2012

"*E_O* represents ego without gravity. Using childhood nightmares and self-discoveries-through-boxing-routines as starting points, I explore the gaps between belief and perception of myself, and attempt to establish the inherent geometry of eyesight, the enneagram, and muscles. I think I am Green Giant [Jack Johnson, nicknamed the Galveston Giant, was a world heavyweight boxing champion, the first African American to hold the title] but sadly I apparently am not."



Your charm seems to derive in part from the self-deprecating sense of humor you bring to self-reflection. I wonder how intentionally you set out to explore “the self” or to practice self-awareness in your work, which can read as an effective if unlikely (considering, again, how funny you are) form of self-help.

Art is an excuse for me to ponder upon my interests. So a residency or performance is a free awareness week. I don't feel like I create movements, but rather I use that week for paying attention to things and concepts that are not useful in daily living. In performance, presence matters more, and it's too late to pay efforts with movement awareness or self-awareness. So I leave emotional sensitivity in the studio and do performance in a more automated subconscious mindset.

You have a lot of presence. How do you enter such a state? What guides you?

I am often using myself and my experience as a guide. Recently, for example, I have been bringing my self-defense mechanisms into performance. For instance, I made a 3D personality test titled *Coffee/Tea* (2015) for the Frieze art festival last year. In the installation, you basically go through several rooms to get out to the other side of a booth. In each room, there are two exit doors, which invite you to pick one choice or another. The first room contains one door leading to coffee beans and the other to tea leaves. In another room, there are five chairs and depending on which chair you sit on, the chair will tell you which door to go through. All the choices are simple yet telling. Your taste, preference, and instinctive reaction become clues for the system to decide on your personality type. As you come out of the final door, you are given a little pin that states what your personality type is.

With this 3D personality test, I was promoting being judgmental. Though judgmental people are often judged to be crass and rude, judging people to assume their next move has been my natural way of navigating the world. An OCD person would have a particular handshake and a timid person would place their drinking glass close to the edge of a table. I am immensely joyful when a person behaves exactly the way I assumed she would. Then I can plan how to enhance my interaction with her! I find it amusing that the different categories emerge across cultures. I have made many mistakes, but I have never given up collecting data for types in this social world. Judgements are natural, if problematic. And I pose the question of whether they could be useful.⁴

⁴ *Coffee/Tea* (2015) description adapted from “Phaidon’s Frieze NY interviews – Aki Sasamoto,” accessed October 1, 2016, <http://www.phaidon.com/agenda/art/articles/2015/april/09/phaidon-s-frieze-ny-interviews-aki-sasamoto>.

That sounds surprisingly like a Feldenkrais Functional Integration lesson, in which a practitioner makes a guess or hypothesizes about the way a client is moving or holding tension, and then tests the theory out, step by step, touch by touch, accepting, rejecting, and progressing in that way. The goal in Feldenkrais is not to classify or typecast but the process sounds

5 “Pelvic Strategies and Gait Observation,” accessed October 1, 2016, <https://vimeo.com/146525814>.

6 “Aki Sasamoto - E_O,” accessed October 1, 2016, https://www.youtube.com/watch?v=TpFduOOGe_c.

*similarly investigative, and as a Feldenkrais practitioner, you do develop a sense of how people move in relation to each other. In fact, I just saw this great demonstration of walking styles by Feldenkrais trainer Frank Wildman. The demo was spot on. Each gait was recognizably different and he could explain how each one worked in terms of the dynamics of the pelvis—rotation, elevation, depression, and undulation—stride length, stress patterns, and so on. The students watched him walk, watched each other walk, and then tried to figure out how they themselves preferred to walk, what strategy or combination of strategies they commonly employed.*⁵

*In E_O (2013), you recount the time your boxing teacher told you, “Aki! Watch yourself in the mirror.” You describe the boxing lesson while simultaneously drawing away from the E_O audience. Walking backwards, you say that you can punch as well as dance, but that boxing is in the head. “I was unable to see myself,” you say, “this made me realize that I longed not to see myself, or anybody else.”*⁶ **[Figs 7, 8]**

Can you talk more about how you do or don’t use self-image and visualization in your work? It’s a conversation in Feldenkrais—to what extent and in what way images function to help or distract people from feeling themselves. Do images and the fixity of a visual aid prevent people from connecting with their experience and realizing their innermost intentions? Or can they help people to realize what they’re doing, what they might do, what they want?

Even when I have a big theater show, and I am a director/actor, I don’t use a camera to watch rehearsals (maybe I should change that, but . . .). I’m afraid to lose the core emotion if I approach the production with visual awareness. I stay true to the senses I want to feel during performance. That’s all I have, not a vision of myself. Of course, if the piece is remounted in another place, I often see the documentation before performing again. I just try not to take in mediated information before I perform (or practice) something at least a few times. So yeah, I probably agree with the Feldenkrais side that prefers to avoid too many images or pictures of an experience.

At the same time, this ‘sensing’ way can sometimes feel too slow, and I do want to acquire the ‘watching’ skill, too. How can I learn how to watch? I probably have to learn the skill to go back and forth between the two approaches to composing.

By way of concrete poetry, sculpture, and playing the drums, walking has become the central tenet of Helen Mirra’s art practice. A professor for many years, she has exhibited across the U.S. and internationally and been honored with many awards. I was fortunate to study with Mirra at UC Berkeley and Harvard.

Interview with Helen Mirra

[Miller] *You have spent substantial time over the past few years walking and “half-smiling” in New York City; Aspen, Colorado; Havana, Cuba; and, most recently, in Cambridge, Massachusetts. Can you give us a sense of what this practice entails?*

[Mirra] Yes—either alongside an exhibition or simply as my participation

in one, I've made a structure to temporarily legitimate this pair of favorite activities—walking and half-smiling. The idea of half-smiling is to meet the world with indiscriminate friendliness—this isn't a complimentary smile *at* a person, say, but a half-smile *towards* all beings. When walking and half-smiling, the body is like an antenna, being neither pushed nor pulled.

Both the walking and half-smiling are meant to be casual—and inexhaustible. The rubric for the project is a printed notice, posted and distributed in the context of an exhibition, quietly announcing the project and inviting anyone to participate. The text includes some basic ideas about walking (and the body in space) and half-smiling (and equanimity) and their relation to each other (effortlessness and friendliness), and a schedule of times and places when and where the walks begin.

You quoted Thich Nhat Hanh's Peace is Every Step in the notice for your walks in New York: "We seem to move forward, but we don't go anywhere; we are not drawn by a goal."⁷ Despite the emphasis on process, the half-smiler texts are filled with references to beginnings and ends. What significance does the start or completion of a process have for your walking of late?

⁷ Thich Nhat Hanh, *Peace is Every Step* (New York: Bantam, 1990). Quoted in Helen Mirra, *half-smiler*, accessed July 31, 2016, http://www.hmirra.net/information/pdfs/halfsmiler_NYC.pdf.

I'd venture that non-starting, non-finishing, have a lot of resonance. And I hope the beginnings and endings within *half-smiler* are recognized as elliptical. Thich Nhat Hanh is very articulate about "inter-being"—his term for what is more often referred to as co-dependent origination within Buddhist philosophy. An example he has frequently used is a piece of paper: wholly considering a single piece of writing paper, one can see within it the tree that was cut down and pulped, the cloud that rained on the forest, the person who cut down the tree, that person's parents and every one of their ancestors, and so on—the whole universe. So there are only little starts, little stops, within vast continuousness.

Relative beginnings make sense to me, endings less so, though of course I get that they are not unrelated. All the starting places for the 2014 walks in New York, with one exception, were cemeteries. (Being an amateur mushroom enthusiast is case in point with thinking decomposition is more a starting than an ending.)

You're not afraid to make a recommendation, to share what you have learned. A few of your suggestions from that first half-smiler text:

Tips for comfortable longish-distance walking:
 commonsensical footwear, e.g. arch support, spacious toe boxes
 raingear rather than umbrella when showers in the forecast
 travel light, in pockets or knapsack
 possibly a compass⁸

⁸ Mirra, *half-smiler*.

Maybe that's what protects it from being a so-called artwork. I think of *half-smiler* as a practice—not-studio, not-object, not-singular; rather, outside-undocumented-shared.

It's also an address. You're inviting participation more explicitly than in previous projects. You put the idea out there, suggest a starting place, and a place to meet up for lunch. Then it's up to us. The itinerary is clear, the journey indeterminate.

9 Ad Reinhardt, excerpts from ART IN ART IS ART-AS-ART, first published 1965, reprinted in *Art as Art* (Berkeley: University of California Press, 1991), 63–68. Quoted in Mirra, *half-smiler*.

I hope so. In the text for the New York walks, there are also some lines from the painter Ad Reinhardt: “Limits in art are not limits. No limits in art are limits.”⁹ One could follow with: Unafraidness in art is not unafraidness. Practice unafraidness or sensing limitlessness. Practice space. Practice—not to be confused with rehearsal, a concept I’ve never really appreciated.

After it rained this morning there were tons of salamanders out practicing walking. This one New England newt had the most compelling locomotive strategy. With every step the pronounced swing of her belly pulled her onto her side and yet her progress was continuous. Each fall fed into the next step as the needle-y leaves propelled her through the hairy underbrush.

I love watching a salamander also. In between us and our inner fishes. It’s all practice. Falling off and getting up. These days I think of the pelvis as one center, with the legs loose, dropping down from there, the upper body extending up from there. Chest and head both anti-weights, making the rise effortless. Little sky of the roof of the mouth nested in the big sky, this brings nose and ears into balanced attention with eyes, which tend to be habitually over-extended. Then gaze can soften. Walking *along*, not alone or autonomously.

The things you make—weave, stack, or notate—breathe new life into viewing. In Waulked, for instance, your exhibition at Peter Freeman Gallery in New York last fall, you presented weavings made with wool from two different black sheep.¹⁰ While these sheep are the exception in predominantly white flocks, the difference in color between their wool is barely visible. As remarked in the press release for the show, the slight shifts in color that arise as a result of your using such wool “beckon extended regard.”¹¹

10 Waulking is a process of felting (or finishing) woven wool during which a group of women would often pace their work with traditional, rhythmic songs.

11 “Press Release,” accessed July 31, 2016, http://www.peterfreemaninc.com/exhibitions/helen-mirra_2/pressrelease/.

To me attending to the weavings, both as maker and observer, engages the senses of smell and sound more than a painting might. The weavings are triangles that hang on the wall, with a 90° angle in the upper right corner, and the hypotenuse running from upper left to lower right. Maybe the shape can take a person (a viewer or gallery visitor) onto the right foot, to mirror, or the left foot, to counterbalance. **[Fig 9]**



Fig 9
Installation view of Helen
Mirra's *Waulked*, Peter
Freeman, New York, 2014



Figs 10, 11
Reference images, Helen
Mirra and Ernst Karel,
Hourly directional sound
recording, Mata Atlântica,
Brazil, 2012



Fig 12

Measuring plank for Helen Mirra's *65 instants*, MATRIX exhibition at UC Berkeley in 2004, which grew out of the second-century Buddhist philosopher Nagarjuna's idea regarding the moment between initial perception and intellect or judgment. Sixty-five instants are said to occur within this moment, the length of time of a finger snap; these instants have been variously described as too short to comprehend and registerable if one is

sufficiently attentive. Mirra made sixty-five works, one a day for sixty-five days. Each was made from a recycled shipping pallet plank, hand-sawed to match the length from the elbow to the fingertip of one of the artist's arms and the width of her other hand. Diligently hand-sanded, the planks were monochromatically painted with milk paint, an eighteenth-century matte furniture paint.

The triangle's relationship to the body in your current practice of weaving makes me think of other instances where you've worked with(in) the constraint of your own measurements. For Hourly directional sound recording, Mata Atlântica, Brazil (2012), for example, you and sound artist Ernst Karel took daylong walks and every hour stopped to make location recordings, holding microphones at the ends of outstretched arms. You made one-minute two-channel recordings, the first with arms out to north and south, the second toward east and west. Each of your two-channel recordings were then paired for quadraphonic playback, a primitive form of surround sound, and installed at MIT's List Center in Cambridge, MA.

[Figs 10, 11]

Both Waulked and Hourly directional sound recording bring attention to the space immediately surrounding a person and remind me of Feldenkrais strategies for expanding proprioceptive sense—out in front of yourself, around yourself, above and below. I'm curious if any formalized exercises or instructions have inspired your attention to this continuity of personal and public sphere.

Aline Newton has tuned me into related ideas—including the little sky/big sky of the roof of the mouth I mentioned earlier. Those kinds of cues are incredibly helpful to me, and I consider them first as experimental, then as notions to hopefully incorporate towards sensing the boundary-lessness of ourselves. *The New Games Book* (1976) was the *vade mecum* of my childhood, especially at Unitarian summer camp—physical and non-competitive activities that one could play with modulation—in turns mellow and vigorous—and full of open, abstract questions. **[Fig 12]**

Interview with Julie Carr

Julie Carr is a poet, publisher, and Associate Professor of English at the University of Colorado, Boulder. She has written nine books of poetry and criticism and teaches poetry and poetics from the late eighteenth century to the present. She is the co-director of Counterpath, an independent literary press and bookstore/gallery/performance space in Denver, and regularly collaborates with dance artist K.J. Holmes on text scores for performance. **[Fig 13]**

12 Julie Carr, *Rag* (Richmond, CA: Omnidawn Publishing, 2014), 89.

[Miller] *Your poetry changes the way we see. This might sound like a generic thing to say about poetry but perceptual shifts and psychological transformation are particularly striking in your work. In Rag (2014), for example, your recent book-long poem, figure and ground and subject and object often switch places. At one point in the poem, “The sculptural qualities of plants stun the light,” rather than the sun illuminating the plants, as we might expect.¹²*

Semantic play within subject-object relations fuels other, more provocative scenes as well. Following a passage on the administrative tasks of activism, Rag's narrator throws up her hands, “Though I have answered your questions about the molestation of children/ and have offered a definition of rape. . . .” On first read, this exasperated defense sounds as if it's being directed to some kind of judge or jury. It could have been spoken by an activist-poet to a demanding reality, officious self, or expectant readership. As it turns out, the speaker, a mother, is foremost addressing her curious young daughter:

Though I have answered your questions about the molestation of
children
and have offered a definition of rape

Though I have invented a blue-skinned bath-witch who turns your
bathwater to ice
and a benevolent squirrel who after spying through the window,
spirals down a tree to find your

13 Ibid., 29.

mother, I have no true gifts beyond the gift of placing the pieces one
beside another all day and all night....¹³

In the space of a page, a single sentence, the voice of public duty has taken on a world of domestic responsibility. The placement and magical replacement of the parts is pronounced, even physical, and I wonder if this way of looking—from changing angles and changing relationships to power—has anything to do with your background in dance.

[Carr] I think that shifting perspectives in writing does link back to a love of and courting of disorientation, which was such a part of my dance practice. I remember many improvisation exercises which involved attempting to see things in unusual ways. For example, we would wander a room, examining mundane objects—floorboards, window sills, walls—very close up, or from different angles. Or we might turn ourselves upside down in order to see the room and its activities in reverse. Of course, spiraling movement would create its own physical disorientations. And there is something too about dance training that allows us to perceive from another person's perspective, or to feel as if we can.

The philosopher Erin Manning describes the “welling” of movement, the moment before a movement happens, which a dancer can often sense, even when it is happening in another person's body. We know where the body is going before it gets there, even before it starts moving. So I think dance training, and especially improvisational dance training, strengthens and broadens perception. And perhaps this then comes through in my writing when I describe things from unusual perspectives.

As for power—well, the dancing I did was all about trying to break down, or even subvert, typical power relations, such as those between genders or those between the choreographer and the dancer, or even between the dancer and the audience. I hope that there are ways that my writing engages those same aims, though I'm not sure I can articulate how that happens or if it does.

I think the “welling” of movement you mentioned might be related to the idea of intention in Feldenkrais. A clear intention guides us through all kinds of disorientation in an ATM lesson, making the connections necessary for us to let go and go. (I'm thinking, for example, of a lesson that culminates in a somersault, for almost anyone.) What is it like, I



Fig 13
Cover of Julie Carr's
Rag (Omnidawn, 2014)



Fig 14
Julie Carr reading *Let Her Speak: Transcript of Texas State Senator Wendy Davis' June 25, 2013, Filibuster of the Texas State Senate* (Counterpath Press, 2013)

wonder, to find and follow your intention in the process of writing poetry? If movement is already being thought, already welling, before it's moving, does thinking move before it's thought? Where would you locate and how might you describe the incipient thought?

Normally I would say that there is no incipience, that I never know what I am writing until I am writing (and often not until I have read what I have written). In this sense, I would say that writing always has a belated quality. I write only in order to write, and then later, I see what I have written and make “sense” of it, or find reason within it.

But I could also say the opposite. That there is always a poem that I am writing into, that somehow pre-exists the thing I am writing. What gets me to write is some sense that the poem already exists, and I just have to find it, or find myself in it. Another way of saying that is to say that I begin with some formal vision. I don't mean that I use received forms (like the sonnet or the haiku), but rather that a sense of form pulls me forward. For some reason I very much want a long line. Or I very much want to see something sparse on a page. Or I need a huge prose block. Whatever that formal vision or desire is, I think I write toward it. So while language, or what we call “content” in writing, doesn't seem to ever preexist writing itself, form does seem to, as a kind of ghostly presence that draws me into it. **[Fig 14]**

14 Julie Carr, “House/Boat,” accessed July 31, 2016, <http://new.bostonreview.net/BR27.2/carr.html>.

15 Much as writers speak about the materiality of language, Feldenkrais practitioners often refer to the “grammar” or “syntax” of human movement, and I'm inspired to note some of the ways that Feldenkrais can function as poetry. For example, as the word “bank” keeps changing meaning in “House/Boat,” the generic movement of “reaching” can apply to reaching for a door handle, getting to the bank, or rowing. A Feldenkrais lesson that riffs on reaching does so through variations on a theme and an aesthetically pleasing arc, not unlike a poem. Both ATM and poetry formalize the exploration—of a word, idea, or movement—and inspire continued improvisation and integration in any number of personal and public domains.

It's interesting how you describe the impulse to write as a desire to inhabit a poem. Emotional transformation often gets expressed spatially in your poetry—in terms of insides and outsides. In “House/Boat,” for example, an early poem, the speaker fumbles around in the snow for a car handle, for a way out or another way into an impossible situation.¹⁴ No help is forthcoming so she eventually picks herself up and walks to the bank. As she's walking, the snow banks on either side of the street come to resemble the banks of a river and, it's her cue, she takes up the oars.¹⁵

I'm reading Surface Tension (2013), your critical study of Victorian poetry and poetics, and wondering if your analysis of movement in poetry could be described as a sort of politics from the inside... or from an undeniably personal, internally inflected position. Both self-awareness and community activism are generally earnest, straightforward endeavors, and yet a sense of responsibility to oneself and others is not so simple in the poetry you discuss. Can you speak a bit to the potential of irony and desire for self-knowledge and social relations as you write about them in your book?

There seems to be a tension in your question between what we could call the authenticity of “politics from the inside” (which assumes a kind of honesty) and “irony,” since irony is usually thought of as a distancing measure, a way to not really be one's self, or not really be speaking from one's true self when speaking. Let me start by speaking a bit about the poet Matthew Arnold, and then I'll try to think about irony more generally.

In his essays, especially “The Function of Criticism at the Present Time” (1865), as well as in his great work *Culture and Anarchy* (1869), Arnold put forth the idea that social change must have its origins in criticism. The critic (social critic, but also cultural critic), has the ability to see things from an objective or “disinterested” position, and so can help guide a culture without being swayed by his own self-interest (which is one with his class position). This is, of course, a fantasy, since no one can be truly disinterested. But that was the goal, as Arnold saw it, of the critic, and, ultimately, of the state.

Now, the problem with that idea, as many, many political philosophers have pointed out, is that only those whose subject positions are secure can comfortably claim to abandon them, only those who are already in positions of power can have any pretense of distance from their own “interests.” The other poets I write about in *Surface Tension*, then, instead of reaching for this “disinterested” perspective, write from the position of desire. They write very urgent poems that start from and remain in the place of desire, and I became really interested in what kind of politics that produces.

Irony is such a destabilizing force. Paul de Man's great essay on the topic, “The Concept of Irony” (1996), speaks of how irony cannot be controlled by understanding, because as soon as it is introduced (say, into a text), we do not know where it begins or ends. There is no saying where or when the text “stops being ironic.” Of course this is true of ironic people—we never know if we can trust them, in fact, we know we never can. So, maybe irony is not only useful in poetry, but inevitable, because language never does stay put, never does “really say what we mean,” is always slipping out the back door, in a sense, and doing things we cannot predict or control. And maybe this is the problem with Arnold's politics, he assumes there can be a finally un-ironic man (and it is a man, to him). He assumes that the critic is one who can be fully trusted to say what is, to “see the object as in itself it really is.” This search for the un-ironic man is, of course, deeply ironic, for that man is never what he says he is. The person who claims to be perfectly objective is the least likely to be able to see from others' perspectives, because he thinks his own is actually universal.

So maybe, and this is a cop out, because I don't know how to imagine political utopias, I could say that I go to poetry because of its ironies and because it reminds me of how both desire and irony keep everything moving and unstable. That, in the end, if not a kind of utopia, is at least a kind of realism.

With all its themes and variations, the language of human movement is composed of common, what we might call human or even life experiences. These experiences are not generic abstractions but rather concrete and elusive realities. Our development of basic actions like crawling, sitting, and walking thrives on novelty, paradox, and

self-organization. Integral to the practice of Feldenkrais, such motivating principles also have their analog in art. As we become more aware of the texture and character of our movement, we discover a uniquely intimate reference, and partner, in creative practice.

Take Feldenkrais' emphasis on novelty, an exceptional contribution to our understanding of embodiment. While formalized exercise neglects altogether the relevance of curiosity and new sensations for fitness and well-being, we have, in other realms, been warned that novelty "wears off." Consider, in contrast, the context of a Feldenkrais lesson, in which the novelty of a movement can provide unexpected direction rather than distraction, and lead to further development. The pleasure of novelty is valued in the Feldenkrais Method for moving things forward, for keeping the lesson alive. As in art.

More than anything, perhaps, novelty fuels Jay Scheib's work. The spontaneous scenarios, or *lazzis*, that Scheib employs act not unlike constraints in Feldenkrais, inhibiting movement in unlikely, even arbitrary, and yet generative ways. You'll recall Scheib's description of one such *lazzi*, in which the whole cast of a production crowds into a dressing room, wherein a humorous if deadly family feud ensues, followed by a door-opening release and reorganization of the group.

Of course, change occurs in different ways in the various works we have been considering. Audra Wolowiec's installations, unique collaborations between visual artists and performers, resemble Awareness Through Movement classes as they shift the quality of the day and the tenor of the gathering, not just the quality of the moment. In the rhythm of Helen Mirra's walking—which she describes as "non-redundant"—the key difference-in-similarity of any happy movement sequence unfolds. Variations in the color and shape of Mirra's weavings "reveal themselves gradually," not unlike the image of the skeleton over the course of an ATM.¹⁶

Wary of novelty for novelty's sake, what interests Julie Carr is when the writer (like the dancer) reveals a thought-process through a colorful terrain of "associative leaps, sudden shifts, juxtaposition, and strange logic in poems. Sometimes what's driving a shift is an emotional outburst or interruption, sometimes it's a mental association, sometimes it's a sonic or rhythmic response to what's come before."¹⁷ As she makes an association or responds sonically, the ironic speaker in Carr's poetry reverses our expectations and throws us off; in effect, training us. Our brute, which is to say habitual, identifications, are reflected back. The reader, as the zealous young boxer, or the attacker in the trickster art of Judo, at which Moshe Feldenkrais excelled, thinks she is on solid ground but she isn't.

¹⁶ "Press Release," accessed July 31, 2016, <http://www.nordenhake.com/php/current.php?bID=245&slD=243&city=stoc kholm>.

¹⁷ Alexis Almeida interviews Julie Carr for Timber Journal, accessed July 31, 2016, <http://alexisfalmeida.tumblr.com/publications>.

Moments of Being: The Feldenkrais Method in Actor Training

Connie Rotunda

*Any idiot can
memorize lines.
It takes a special
kind of idiot to
breathe life into
them.*¹

—John Tyrrell

¹ John Tyrrell, master teacher of the Meisner Technique, private conversation.

² Eugenio Barba, *The Paper Canoe: A Guide to Theatre Anthropology*, Richard Fowler, trans., (New York: Routledge, 1995), 7.

The nature of an actor's work is to keep the channels between outer expression and inner life constantly flowing. As with a Möbius strip, the movement from external to internal is seamless and follows one continuous stream. This movement is integral to an actor's work because she must remain consciously grounded in her physical self, while living in imaginary circumstances, speaking memorized lines, and remaining present to partners, ensemble, and audience. Acting requires the ability to work with an "extra-daily" use of the self through techniques that deepen the actor's ability to move between her inner and outer worlds.² The Feldenkrais Method of somatic education offers many useful supports for the actor on her journey to becoming a "special kind of idiot."

As practitioners we know that engaging in the process of an Awareness Through Movement (ATM) lesson can provide a release from habitual tensions and lead to a reorganization of self. This has substantial value for an actor, as it provides greater possibilities for optimal alignment, breathing, and acture in the studio and in performance. With the increase in ease, differentiation, and efficiency of movement she has increased options for entering the words, actions, and style of the play.

Awareness Through Movement lessons can provide a structure for the demystification and synthesis of elusive acting principles and techniques. In 10 years of teaching actors at the college level, I have found that students' abilities to absorb and utilize the lessons as stimuli for their creative development are enhanced when the Feldenkrais Method becomes an integrated part of their studio work. Interweaving Feldenkrais lessons and ideology with acting language and exercises

allows for greater freedom and a firmer footing, both physically and emotionally.

To Demystify

In an organized performance, the performer's physical and vocal presence is modeled according to principles which are different from daily life. This extra-daily use of the body-mind is called 'technique' These principles, when applied to certain physiological factors—weight, balance, the use of the spinal column and the eyes—produce physical, pre-expressive tensions. These new tensions generate an extra-daily energy quality which renders the body theatrically 'decided', 'alive', 'believable', thereby enabling the performer's 'presence' or scenic bios to attract the spectator's attention before any message is transmitted. . . . Knowledge of the principles which govern scenic bios [Barba's term for stage presence] make something else possible: learning to learn.³

3 Eugenio Barba, 9.

—Eugenio Barba

I tell stories because I believe that learning is the most important thing for a human being.⁴

4 Moshe Feldenkrais,
The Elusive Obvious
(Capitola, CA: Meta
Publications, 1981), 118.

—Moshe Feldenkrais

It is generally accepted that the job of the actor is to tell the story. To do so, he must make himself available by attentively listening and responding moment to moment. In a truly engaged performance, the story tells itself through the actor. The actor suspends himself in the creative unknown. Instead of deciding what the story is and acting it out, he listens with attentive readiness and "is decided" into action by the emerging narrative.

Awareness Through Movement lessons, particularly those with challenging instructions that carry a sense of the impossible, can provide an entrance into the experience of what it is "to be decided." The lessons provide the means to make this abstract principle more concrete for the actor.

ATM lessons invite the actor to follow an unfolding narrative. If the actor strains persistently for a result, he is deciding—commandeering the story while simultaneously struggling to find expression. This is a common sticking point for the actor in rehearsal and performance. Willfully pushing ahead of the chronology severs expression and nuance. Muscularity overrides presence, and the significance of the story disappears.

When teaching ATM lessons to actors, providing guidance using actor-specific language helps to link the quality of movement on the mat and in technique practice. The actor becomes more adept at sensing

when he has sacrificed the through-line of the story for sheer will. In rest and in reversibility he experiences the valuable art of the pause—suspending the action and sensing the timing while sustaining presence. He learns to re-enter the flow of the lesson with renewed presence, listening, and a sense of timing. He finds himself traveling moment to moment, no longer commanding the story but being led in response to it. Not deciding, but being decided.

To build the experience of “being decided” in the classroom, I start with an exercise developed by postmodern theater artist Mary Overlie.⁵ The exercise begins with walking, stopping, and listening for the story that could unfold in the room, noticing spatial relationships. It introduces the possibility of a story emerging through an actor’s movement, presence, and relationship to the space. Inherent in the stopping is the art of the pause. Actors approaching this exploration for the first time often plan when and where to walk and stop. They become self-conscious and shrink inward, withdrawing from being seen. Returning to the exercise post-ATM lesson, the actor is more aware, fluid, and present in his interaction with the space and the other actors. The lesson continues to resonate in him, and the dialogue between the actor and the space transitions into story.

ATM lessons provide the actor with an experiential understanding of how to enter technique work with spontaneity and honesty. The actor becomes more skilled in working intuitively and distances himself from pre-planning and overthinking. He begins to trust that he will be ready to respond to what is happening in the instant, rather than toiling to perfect a performance ahead of time. Remaining present in the unfolding moment creates the energy Barba describes as being in the alive state that attracts the spectator’s gaze.

To Synergize

We are trying, by abstract thoughts to make concrete things in our bodies. This means we must think with the whole body, and we can really think about everything in the world with our whole bodies. To be a real idealist means to use each part of your body, your being, for your idealism. . . . I am. My head is erect, my neck is firmly on my shoulders, my body is beautiful, every part of my body radiates the knowledge that I am because I have something to give, something that can be achieved because of my special approach as an actor.⁶

—Michael Chekhov

Now, what we are going to do now, that simple thing—very, very simple—is actually one of the major achievements of my life. . . the fact that I am able, and I have learned, and evolved a

⁵ Mary Overlie, *Standing in Space: The Six Viewpoints Theory & Practice*, accessed November 10, 2016, <http://www.sixviewpoints.com>.

⁶ Deirdre Hurst du Prey, *The Actor is the theatre: a collection of Michael Chekhov's unpublished notes and manuscripts on the art of acting and the theatre*, typescript, Billy Rose Theatre Division, New York Public Library, 1977. Entry from 9/27/1937.

method, which allows me to turn abstract ideas into concrete, simple acts, so that any human being can do it, feel it, and realize, that he is actually not only a body, but also a brain. . .⁷
—Moshe Feldenkrais

7 Moshe Feldenkrais, Recording of Dallas workshop, 1981, quoted in David Kaetz, *Making Connections: Hasidic Roots and Resonance in the Teachings of Moshe Feldenkrais* (Hornby Island, Canada: River Center Publishing, 2007), 83.

8 Joanna Merlin, Video, *Michael Chekhov School*, accessed March 29, 2016, <http://www.michaelchekhovschool.org>.

9 Michael Chekhov, *Lessons for the Professional Actor*, (New York: Performing Arts Journal Publications, 1985), 81.

10 Hurst du Prey, 1977, entry from 9/27/1937.

Michael Chekhov was considered to be one of the most original actors of his generation. In his search for an entrance into the creative state, he developed an approach to acting that would release inhibitions and unwittingly self-imposed limitations. Chekhov's approach works through principles and practices of whole body movement and the use of the imagination to enlarge the image of the self.⁸ "All points of [Chekhov's] method can be understood from the point of view of transforming the outer thing into the inner life and changing the inner life into an outer event."⁹

There is a compelling synergy between the Feldenkrais Method and Chekhov Technique. Complementing ATM lessons with Chekhov exercises creates a fertile laboratory where actors can discover a more fluent relationship to the feeling of truth in their art. In his psycho-physical approach to acting, Chekhov created doorways for actors to enter the authentic flow and transformation at the heart of performance.

Together, the Feldenkrais Method and Chekhov Technique provide a rich context for students' experience of pleasure, ease and beauty, form and wholeness. Here again, choice of ATM lessons, meta-comments relevant to actors, and the use of imagination enable an exploration which can transition seamlessly to a Chekhov exercise. The actor can cross over the threshold of any of Chekhov's many doors with energized focus and expanded receptivity, consciously grounded for her entrance into the technique.

Psychological Gesture (PG), perhaps the most iconic of Chekhov's doorways, is a physical understanding of action, a focused and repeatable movement that awakens the actor to her internal source of motivation. A gesture becomes a bi-directional flow, carrying inner life outward while simultaneously allowing the outer gesture to flow back inward to sensation. This process invites a continuous "taking in" with the whole body, composing on the inside and translating feelings into form.¹⁰

Although any ATM lesson can inform the actor when working with PG, lessons where movement is guided both through inward imagining and outward action awaken the actor to how her inner movement affects her outer life. She can begin to play with the desirable smoothness of moving between her inner and outer worlds as she incorporates her discoveries from ATM lessons into her exploration of Psychological Gesture.

In creating a bridge between the two methods in the classroom, the lesson could be structured as follows. Beginning with the Chekhov principle "Crossing the Threshold," the actor is invited into an "extra-daily" use of self. While walking in the studio, attention is brought to the sensation of impulses moving through the Chekhov centers of her

“Intellect,” “Heart,” and “Will,” noticing how the legs flow from the will and the arms from the heart. An exploration of the gesture of reaching is added: the gesture begins internally in the “Energetic Body,” travels outward as action, and is sustained. On the mat, the ATM lesson “Reaching Like a Skeleton” continues with similar themes. As the teacher’s comments bring attention to the shape, sensation, and movement of the actor’s pelvis, rib cage, and skull, they also echo Chekhov’s centers of will, heart, and intellect. Actors begin to experience the reaching gesture in the lesson as a whole, connected sequence of movements traveling with ease and grace through their entire being. As the teacher draws the lesson to a close, inviting students to play with gradually decreasing the size and extent of the reach until it is no longer visible, each student feels its internal resonance. In coming to standing, students are then encouraged to revisit and explore the common everyday gesture of reaching with their newfound awareness and understanding. The ATM lesson deepens and enlivens the PG, strengthening the connection between inner and outer experience.

The synergy between Dr. Feldenkrais’ scientific-humanistic approach and Chekhov’s artistic-spiritual approach makes for a broad and layered lesson. In this and other combined lessons, Feldenkrais and Chekhov support and deepen our appreciation for the breadth, openness, and potency of each individual and humanity.

To Be

The literal translation of the word theatre in Greek means “the seeing place.” ATM lessons provide a private seeing place where an actor can begin to recognize himself and more fully potentiate his extra-daily pursuits. He lives with greater fullness in his internal space, expanding his ability to sustain presence and inspiration when entering the public seeing place. He breathes life easily into his lines, becoming potent, creative, “a special kind of idiot.”

Intimacy: Adopting the Feldenkrais Method's Principle of Constraint to Create a New Dance Theatre Work

We recommend watching the edited documentation of *Intimacy* before reading this article at <https://vimeo.com/109193620>

Intimacy credits:
Created and devised by Torque Show (Vincent Crowley, Ross Ganf and Ingrid Weisfelt) in collaboration with Michelle Ryan and Lavender Vs Rose (Emma Bathgate and Simon Eszky); Directed by Ingrid Weisfelt and Ross Ganf; Performed by Michelle Ryan, Vincent Crowley, Emma Bathgate, and Simon Eszky; Lighting design by John Ford; Set and costume design by Adrienne Chisholm

Ingrid Weisfelt

I have worked as a professional dancer for 25 years in Australia and Europe and have been making original dance theatre performance pieces for 20 of them. I have been a certified Feldenkrais teacher since 2002 and have taught the Feldenkrais Method of somatic education to actors, singers, and dancers at various Australian and European arts training institutions, including Monash University, the Victorian College of the Arts, and the National Theatre Drama School. I also integrate the Feldenkrais Method into my own dancing and performance work.

The most recent work I directed is a dance theatre piece called *Intimacy*. Of all the works I have made this is the one that has drawn most heavily on my experience of the Feldenkrais Method. **[Fig 1]**

I used the Feldenkrais Method to assist me in many aspects of the creation and development of this piece. Each morning we began rehearsals with an Awareness Through Movement (ATM) lesson to help warm up our bodies, build physical skills, and, most



Fig 1
Michelle Ryan performing in
Intimacy (2014)



Figs 2, 3, 4
Michelle Ryan and Vincent
Crowley in rehearsal for
Intimacy

importantly, to establish a common approach to how we attend to ourselves and each other in the rehearsal studio. Furthermore, I used Functional Integration (FI) lessons to help the performers develop the sophisticated contact skills required in the choreographic sequences involving partner work. In this article, I will focus primarily on the Feldenkrais Method's way of working with a constraint in ATM lessons, and how this unique approach, and my personal experience of it, supported the discovery and development of the rich and varied physical vocabulary of *Intimacy*. **[Fig 2]**

Intimacy takes some of our most private and vulnerable moments and examines them in public through the prism of coping with disease and disability. A work of dance theatre and live music, it has been described as “part confessional, part cabaret and part flirtatious dance with an audience seduced into participating.”¹ It is an unashamedly confronting and heartfelt work about the beauty, fragility, strength, and vulnerability of what it is to be human.

At the heart of the work is Michelle Ryan. Michelle started dancing when she was four years old. At 30, at the peak of her professional dance career, she was diagnosed with Multiple Sclerosis (MS). She stopped dancing, lost the feeling and strength in her legs, and her marriage ended. From that point, her life has become progressively more vulnerable and precarious, her need for the help of others more urgent, and her own experience of life more lonely. **[Fig 3]**

As a performer, Michelle is unique. Though her MS has irreparably damaged her physical prowess, it has not undermined a lifetime of physical artistry and creative expression. No one else moves the way she does. Her simplest gesture can evoke a level of poignancy and vulnerability, strength and courage that can't be anything other than a true expression of her individual lived experience. It is Michelle's struggle and plight that creates the prism through which *Intimacy* looks at the near universal desire we all have to make a connection with another human being. **[Fig 4]**

Intimacy has had two performance seasons in Australia and one at the 2014 Unlimited Festival at the London Southbank Centre. The show received both critical and audience acclaim and won the 2015 Australian Dance Award for Outstanding Achievement in Independent Dance. Michelle's performance won her the 2015 Adelaide Critics Circle Award for Independent Arts: Individual Award.

Intimacy was produced and created by Torque Show, a small, project-based independent dance theatre company based in Melbourne. I am one of the three founding members of Torque Show. The two others are Vincent Crowley, who performed in *Intimacy*, and Ross Ganf, who assisted with the direction of the work. I conceived the work and devised it in a collaborative process with Michelle, Vincent, Ross, and improvisation musicians Emma Bathgate and Simon Eszeky.

¹ Matt Hargrave, “The Kindness of Strangers: Torque Show's *Intimacy* (2014) and the experience of vulnerability in performance and spectatorship,” in Alice O'Grady, ed., *Risky Aesthetics: Performance, Participation and Critical Vulnerabilities*, forthcoming from Palgrave Macmillan.

Michelle, Vincent, and I have been friends and colleagues since being company members of Meryl Tankard's Australian Dance Theatre back in the early 1990s, and it was a reflection on our shared history, both professional and personal, that inspired me to make this work. Michelle's MS has a significant impact on her ability to work as a professional dancer. It is a challenge for her to rehearse a full day, to learn, retain, and recall choreography, and to guarantee a consistency in the movements that her body makes. What came to her so easily as a professional dancer without MS is now hard fought for, requires constant management and thoughtfulness, and often comes at a cost. Her MS is a massive constraint.

As a Feldenkrais practitioner I am accustomed to constraints. Constraints are used in both ATM and FI lessons to create an opportunity to learn new possibilities. The awareness-based movement exploration within a constraint in an ATM or FI lesson is also supported by many other principles of the Feldenkrais Method: moving slowly and within an easy and small range of movement, being able to notice degrees of effort, feeling differences of sensation in the body, and reversible movement are just a few. Together these create a specific and unique way of working with a constraint that became invaluable to me in the creation of *Intimacy*.

Artistically, the notion of using a constraint to define boundaries and to create a structure within a creative process is not new; however, the Feldenkrais Method's unique and particular application of constraints was especially relevant, useful, and integral to the creative development of this work. Anyone who has enjoyed an ATM lesson will have invariably butted their somatic heads against a whole host of constraints integral to the learning within the lesson.

"Bring the palms of your hands together and fix them together as if they are glued. Without bending your elbows, tilt your hands over to the right."² This is an example of a constraint utilised in many Awareness Through Movement lessons. When I was first confronted with this instruction I felt like I might have just been told to perform a triple somersault finished off with a back handspring. I felt like I had that much chance of achieving the movement. "Use the least amount of effort," said the instructor, "don't strain or push. Keep being able to sense your breathing. Do it slowly and smoothly and pay attention to how the weight of your body shifts on the floor. Pay attention to the quality of your movement and the way that you sense and feel your body move." For me, at first, this attention to feeling and sensing made it even more impossible.

With time, however, as I began to heighten my ability to sense and feel myself in movement, and as I improved the freedom and range of my movement in all planes of action, the "impossible became possible and the possible elegant." What initially felt like an awkward and uncomfortable arm movement became a simple and easy movement of my softer and more supple chest, expertly coordinated and controlled. I could feel a chain of motion all the way down my spine to

² Moshe Feldenkrais, *Awareness Through Movement* (London: Arkana, 1972), 17.



Figs 5, 6, 8
Michelle Ryan and Vincent
Crowley in rehearsal for
Intimacy



Fig 7
Ingrid Weisfelt, Michelle
Ryan, and Vincent Crowley
in rehearsal for *Intimacy*

my pelvis, connected intrinsically with my breath. The movement had become absolutely delightful and pleasurable to perform.

I had to confront many things along the way to approaching this simple movement challenge. I had to acknowledge that, even as a fully trained and accomplished professional dancer, I did not know how to do this movement in this way. Not knowing was extremely confronting. I had to accept my vulnerability and weakness and relinquish my control. I had to trust that the lesson would support the process of my learning, and I needed to establish new movement pathways as part of my self-image. I could only achieve this by sensing and feeling the quality of my movement. I had to be creative, adaptive, and explorative to discover movement solutions within the constraint. I also had to be able to respond willingly and immediately to new possibilities as they arose, before they disappeared. I achieved a wonderful sense of satisfaction when the elusive obvious finally dawned on me and the movement became light, easy, full, and simple. And what exactly did I gain? Definitely a better understanding of how my arms are connected to my back, but more importantly, a better understanding of how I could solve problems and find new possibilities. Not a bad outcome from one simple ATM constraint. **[Fig 5]**

In *Intimacy* we had a very real and fixed physical constraint. Although Michelle has maintained full physical capacity of her upper body and arms, she has lost much of her ability to walk. Balancing, shifting weight, and stepping are now huge undertakings for her, requiring much concentration to achieve. **[Fig 6]**

Michelle would tire quickly. We had to work in such a way that minimized the impact on her physical energy reserves while still providing her with enough rehearsal time to feel that she could accomplish the artistic and expressive outcomes we were all happy with. We began our movement exploration with functional movement such as finding a point of balance in standing, shifting weight, walking, and transitioning between sitting and standing. We developed the building blocks of the movement vocabulary for the show from these very basic and fundamental functional movements. All the movements were explored in a slow and mindful way and executed with comfort and ease. We worked with the principle of reversibility in movement, never straying beyond a point from which we could not return. This basic physical vocabulary was then expanded through the exploration of how Michelle could move completely independently, how she could move with support, and how she could be moved and supported entirely by Vincent. As we built the movement vocabulary around these movements, we used a variety of memory and learning techniques to minimize the physical strain of repetitive rehearsal. Many of these came straight from ATM practice. For instance, Michelle would imagine performing the movements of the dance while she was sitting or lying down. At other times, Michelle would become the teacher by instructing someone else vocally through the choreography



Fig 9
Stage Manager Halley
Jean Buckham and Ingrid
Weisfelt watching rehearsal
for *Intimacy*



Fig 10
Vincent Crowley and
Michelle Ryan performing
Intimacy

while she watched. **[Figs 7, 8]**

In the creation of the work we were always confronted with not knowing if Michelle's body would grant her one more walk, one more dance, or one more performance. We had to accept that we were vulnerable to the whims of this horrible and cruel disease, and we had to find a theatrical power in weakness and the relinquishment of control. Some days were better than others. We needed to respect that and practice the Feldenkrais mantra: "less will, more skill." This required us to be creative, adaptive, and explorative, and to respond willingly and immediately to opportunities and solutions when they arose. We needed to work efficiently and effectively. The fact that Michelle, Vincent, and myself have been friends and work colleagues for decades allowed us to establish a high degree of trust in the room. It was imperative to the success of the project that Michelle felt I could lead her through a process where she felt safe and supported, and that everyone on the floor was working off the same page. The number one guideline on that page was to ask the actors to tune in to how they were sensing and feeling their own bodies, and to hone their ability to pay attention to each other as they worked together on the floor. This built a quality of movement that was supported, safe, understood, easy, fluid, graceful, light, and smooth. In its theatrical context, the quality of movement read as tender, caring, intimate, questioning, alive, vibrant, explorative, and playful. **[Fig 9]**

By honoring the constraint this brutal disease and its physical implications placed on Michelle, we were able to create a unique and original dance theatre work, a work critics called "a polished, touching and thoughtful piece" and "one of the most moving and courageous performances you are ever likely to see. The music, movement and warm humanity will have a powerful effect on every individual privileged to experience the show."^{3,4}

In every aspect of my creative work the Feldenkrais Method has informed and supported me, and I am forever grateful for the incredible insight and wisdom of Dr. Moshe Feldenkrais. His remarkable method certainly played an intrinsic role in the conception, creation, and realization of *Intimacy*. To be able to see Michelle's physical disabilities as a constraint within which to discover and unearth new possibilities provided us with unlimited creative freedom, resulting in a highly challenging and rewarding creative process. Years of felt-experience on the floor doing ATM lessons, the particular experience of finding freedom within many different constraints and contexts, has revealed a process that allowed me to lead, and us to achieve, a highly successful piece of new Australian contemporary dance theatre work. With the Feldenkrais Method as a guide in the creation and development of *Intimacy*, I was able to support my very great friend Michelle to be back on stage doing what she does so expertly: dancing and performing and inspiring others with her most remarkable story. **[Fig 10]**

3 Chris Boyd, "Intimate Moments Laid Bare," *The Australian*, August 18, 2014.

4 Greg Elliott, "Intimacy: raw, beautiful and life-affirming," *In Daily*, October 29, 2015, accessed August 25, 2016, <http://indaily.com.au/arts-and-culture/dance/2015/10/29/intimacy-raw-beautiful-and-life-affirming/>.

Book Review

The Brain's Way of Healing by Norman Doidge

Matt Zepelin

¹ Norman Doidge, *The Brain's Way of Healing: Remarkable Discoveries and Recoveries from the Frontiers of Neuroplasticity* (New York: Viking, 2015), 85.

“If there’s a panacea in medicine, it’s walking,” writes Dr. Norman Doidge in *The Brain's Way of Healing* (2015).¹ The revolution has begun.

Doidge is a psychiatrist and psychoanalyst who lives in Toronto, and he holds faculty positions in two Departments of Psychiatry—Columbia University and the University of Toronto. In his 2007 book, *The Brain that Changes Itself*, he took on the task of explaining “neuroplasticity”—the idea that brain cells regenerate, and that neural networks are malleable, even in adults—in lucid and enjoyable prose. The book became a national bestseller and has been translated into 20 languages.

The Brain that Changes Itself and *The Brain's Way of Healing* share the project of convincing readers that neuroplasticity is more than a theory, that it can be a domain of intentional practice. This is good news for Feldenkrais practitioners, as helping people approach somatic change is our bread and butter. We have been saying for a long time that Moshe Feldenkrais’ method was decades ahead of the science. Is neuroscience starting to catch up?

If we take *The Brain's Way of Healing* as a benchmark, then the answer is a qualified “yes.” Doidge presents numerous examples of somatic therapy in his books: visualization practices to decrease chronic pain, transferring the work of a lost sense (vision) to a working one (touch), enhancing proprioception to control the symptoms of Parkinson’s disease, and more. On the whole, Doidge should be cheered for taking a strong step away from the techno-pharmaceutical fixation that has marked modern medicine, and toward a more holistic and somatic view of human health.

He writes that neuroplastic approaches “require the active involvement of the whole patient in his or her own care: mind, brain, and

2 Doidge, 2015, xxi.

body.”² Replace “patient” with “student” and “care” with “learning,” and does the tune sound familiar? Best of all is that two of the chapters in *The Brain’s Way of Healing* directly address Moshe Feldenkrais and his method. This is cause to celebrate for Feldenkrais practitioners, who stand to benefit through greater public awareness.

Even so, books as widely read as Doidge’s deserve serious analysis. I gladly hop on the Doidge bandwagon, but I do so with some questions in mind. What kind of writer is Doidge? How does Doidge’s presentation of neuroplasticity compare and contrast with a somatic worldview? Are there areas where the Feldenkrais Method of somatic education challenges aspects of Doidge’s books? Are there areas where Doidge’s work can enhance our understanding of the Feldenkrais Method?

3 Sacks contributed a glowing blurb to *The Brain that Changes Itself*.

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Doidge’s writing has been compared to that of the late neurologist Oliver Sacks.³ Like Sacks, Doidge remained a working physician even as he became famous as a writer. They share an interest in the neurological underpinnings of difficult medical conditions, and both writers evince a strong sense of empathy for their subjects.

4 His autobiography, *On the Move: A Life* (2015), was published just a few months before his death, though he had done shorter autobiographical pieces earlier.

But the overlap is not total. Sacks wrote with a sense of open curiosity. Almost all of his work was structured by his interest in neurology, but within that constraint he ventured far and wide. He wrote about his own life, including experiences of neurological aberration, drug-induced and otherwise.⁴ And in books like *The Island of the Colorblind* (1997), he explored the genre of neurological travelogue to great effect. Sacks, who died of cancer in August 2015, was our great, sensitive doctor-flâneur, happily immersing himself in the strange plurality of human neurological experience.⁵

5 For a very touching article by Sacks about the experience of having terminal cancer, see “My Own Life: Oliver Sacks on Learning He Has Terminal Cancer,” *The New York Times*, February 19, 2015, accessed 8/25/2016. http://www.nytimes.com/2015/02/19/opinion/oliver-sacks-on-learning-he-has-terminal-cancer.html?_r=4.

By contrast, Doidge’s writing has more of a missionary quality to it. The mission is clear: it is to explain how research studies and case studies have produced the neuroplastic turn in neuroscience and neurology, and to convince us that neuroplasticity represents “the most important alteration in our view of the brain since we first sketched out its basic anatomy.”⁶ If there is a sense of determination in Doidge’s approach, it is not without reason: he is taking on views of the brain and of medicine that have been well-entrenched in the medical mainstream for decades, in some cases centuries.

6 Norman Doidge, *The Brain that Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science* (New York: Viking, 2007), xix–xx.

The story of John Pepper, one of his subjects in *The Brain’s Way of Healing*, demonstrates both the promise of neuroplastic views of the brain and nervous system, and the resistance they still face. Pepper is a South African businessman in his early eighties who received a diagnosis of Parkinson’s disease over 20 years ago. Although he was an avid exerciser and was on Parkinson medications, his symptoms were progressing. For several years Pepper participated in a group walking program, which encouraged him to take rest days. At one point he began walking with his wife, which caused him to slow down the pace of his walking. These changes led to a paradigm shift in his approach to movement. Instead of

exercising as hard as he could, Pepper began to observe his movement as attentively as possible.

“Walking slowly, he discovered his major problems—problems typical of almost all Parkinson’s patients,” writes Doidge.

Pepper observed that when he walked, his weight was never well supported on the ball of his left foot, so he didn’t dare lift his right leg enough, and that he tended to drag his right foot. He observed that his left foot had no spring to it, and he was not pushing up and forward on it. His left heel was still touching the ground when his right touched down. . . . These were just the most obvious of many subtle observations he made.⁷

7 Doidge, 2015, 55–56.

Using these observations, Pepper developed a system of “conscious control” for walking, manual dexterity, and eventually for all of his movement. The system worked so well that he not only improved, he was also able to maintain his gains even when he stopped taking the medications that supplied his nervous system with dopamine (the neurotransmitter that progressively diminishes due to Parkinson’s disease.)

One would think that the world of Parkinson’s treatment would take Pepper as a model to be emulated, but after he published a book about his experience he began to face resistance from neurologists. Because Parkinson’s is defined as an incurable, progressive disease, and because its treatment protocol calls for medications, the fact that Pepper’s symptoms were not progressing, and that he had gone off medication, convinced several doctors that he must not have had the disease in the first place. Even though Pepper did not say in his book that Parkinson’s patients should stop taking medications, the physicians’ resistance to his account became so vehement that he was asked to resign his position as vice-chair of a Parkinson’s support organization. Doidge concluded that Pepper’s critics “were confusing diagnosis with prognosis and overlooking the fact that he was treating himself very intensely.”⁸

8 Doidge, 2015, 72.

Doidge is not an antagonistic writer. He prefers to celebrate the patients, doctors, and researchers whom he admires rather than excoriate those who resist the implications of neuroplasticity. But the stakes are high, all the same.

Doidge studied philosophy as an undergraduate, and he writes that the prevailing model of the brain goes back centuries, to the Cartesian dualism which consigned the body—including the brain—to the category of dumb matter. The industrial revolution saw the ascendance of the machine metaphor for the brain and nervous system, and recent decades have seen the machine metaphor evolve into the computer metaphor. Yet fundamentally, little has changed: inanimate matter, machine, or computer—none of these respond to environments, and none of these grow. To view John Pepper’s brain as a machine means that the loss of dopamine requires the replacement of dopamine, like replacing a part. There is not much room for alternative worldviews, alternative kinds of

questions or experiments. Can dopamine be replaced by attention? Can we respond to a loss through acts of creativity?

Doidge includes data in his books to make clear that the answers to these questions have profound practical implications. He cites a study, for instance, showing that 16,500 people in the United States die each year from the use of nonsteroidal anti-inflammatory drugs.⁹ The overreliance on pharmaceuticals in contemporary medical culture has to do with money, to be sure: the astounding amounts that big pharma spends on marketing and on soliciting doctors is well known. But this overreliance also has to do with perception. If a doctor believes that his patient is like a machine, made up of “parts” that can be damaged, it may well seem logical to turn to surgery and pharmaceuticals—removing the bad “parts,” or dosing the system with new “parts.” If our culture’s primary metaphor for embodiment were not the machine, but rather the tree, how would it affect medicine and therapy?

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To counteract the prevailing paradigm, Doidge has developed a model for the stages of neuroplastic healing. His stages are based on a three-part conceptual understanding of nervous system health: 1) learned nonuse is often more significant than tissue damage; 2) disrupted brains often become “noisy,” meaning that irregular neuronal firing caused by, say, a trauma can implicate itself into other neural networks, causing a cascade effect; and 3) the neural patterns of the brain (Doidge calls them “neuronal assemblies”) exist at such a high degree of complexity and ongoing dynamism that even serious damage to one part of the brain does not necessarily mean the permanent loss of functions in which it had formerly participated.¹⁰

From this basis, Doidge offers the stages of healing as: 1) a “general cellular repair stage,” in which neurons and glial cells that have been compromised by poor nutrition or exposure to toxins, are repaired; 2) “neurostimulation,” in which sources like “light, sound, electricity, vibration, movement, and thought” are used to convey new information and potentially new organizational options to the brain; 3) “neuorelaxation,” in which, through sleep and rest, “the brain can accumulate and store the energy that will be needed for the efforts of recovery”; and 4) “neurodifferentiation and learning,” in which the rested, healthier brain reapproaches its tasks of attending, differentiating, and learning.¹¹

At one point in *The Brain’s Way of Healing*, Doidge argues that a Feldenkrais Awareness Through Movement lesson, Alexander Yanai #10, fulfills stages two through four of his model: palming the eyes with one’s hands to darken the visual field is “neuorelaxation,” focusing on the darker black spots in one’s optical field is “neuromodulation,” and performing a variety of eye movements is “neurodifferentiation and learning.”¹² The argument is consistent with the high estimation of the Feldenkrais Method as an applied system for neuroplastic change, which Doidge conveys in different parts of the book.

Doidge's endorsement no doubt benefits our work in terms of exposure. It also leads naturally to a question: to what extent does his view of neuroplasticity square with the Feldenkrais Method?

In all, Doidge's writing on the Feldenkrais Method is excellent. His coverage of case studies from Feldenkrais and from Anat Baniel is clear and thorough, and an eight page subsection on "Core Principles" of the method is highly insightful.¹³ I do think one aspect of his writing on Feldenkrais bears particular scrutiny though, as it illuminates a limitation in Doidge's portrayal of somatics.

Doidge's depiction of Feldenkrais' journey to Palestine as a teenager comes across as nearly mythic. Feldenkrais appears as a hero lauded by all he meets, and destined for success by virtue of his natural gifts:

As he walked from village to village, other Jewish children, intrigued, joined him. At one point, to survive, they joined a traveling circus, where the acrobats taught Moshe tumbling and how to fall safely—skills he would one day perfect with his judo. By the time he reached Cracow, fifty children had joined the much-admired boy on his way to Palestine, then more, until over two hundred young people were following him.¹⁴

Contrast this with Feldenkrais Trainer Mark Reese's description of the same period in his biography of Feldenkrais, in which the fourteen-year-old Moshe took it upon himself to break the rules of kashrut for the first time. Reese quotes from a video autobiography Feldenkrais made in 1981:

In the marketplace, in Bratislava, in Pressburg, there are women [who have] in front of them, a big pan [filled with] pieces of speck [bacon]. And the smell of that is just incredible. [At] home it was kosher, milk separated from meat, and things like that. I decided that I am a free man now, depending on myself. I break all the traditions, and I live as I wish.

Feldenkrais proceeded to eat the bacon, feel proud of himself, and then vomit it all up. "I sat there and felt so awful," he continues.

Then suddenly it dawned on me, 'Look Moshe-Pinhas, if you give in to that vomiting, you will never eat pork or have any more in your life. And all your decisions and cleverness won't help you.' I got up, went back, bought another piece and I decided, [it] doesn't matter if I vomit, but I'll still have another one. I had the second one, it was as good as the first . . . and I kept it. And ever since, I'm a boy eating pork and all sorts of prohibited things.¹⁵

¹⁵ Mark Reese, *Moshe Feldenkrais: A Life in Movement* (San Rafael: ReeseKress Somatics Press, 2015), 44.

A lot comes across in Feldenkrais' telling of this episode; it is gritty and audacious. It conveys Feldenkrais' genius for self-innovation, as well as

his obstinacy and his at times reckless physical daring. From a broader perspective, as Reese notes:

Feldenkrais' pivotal story of eating nonkosher food points toward deeper questions, such as those he would explore in the philosophy of Georges Gurdjieff: Are we truly free, or are we essentially automata, creatures of habit, with only the illusion of free will?¹⁶

¹⁶ Reese, 45.

There is a lot more substance here than in Doidge's Horatio Alger-style telling of the young Feldenkrais' life. Of course, unlike Reese, who was writing a full biography, Doidge had to condense Feldenkrais' story into a few pages. Yet the difference is indicative of Doidge's tendency to write about his subjects in the "healer-hero" mold. His "neuroplasticians" are so brilliant that they sometimes come across as a little flat. One admires them without quite feeling that Doidge is describing real people. Doidge's tendency to write this way points to an important distinction: his books are not about somatic education. Where they touch on somatics, they are about somatic medicine and somatic therapy.¹⁷ Doidge loves a "healer-hero" because he loves a good result.

¹⁷ Doidge is clearly aware of this distinction, as he demonstrates in noting Feldenkrais' preference for words like "recreating" instead of "recovery" and "improvement" instead of "cure." Doidge, 2015, 184–185.

Doidge is first and foremost a physician. His job is to try to help people who are suffering, and one can see in his books that he brings a tremendous curiosity and sympathy to the task. His willingness to break from mainstream medicine puts him at the forefront of his field in terms of understanding and appreciating somatics. Even so, the value of somatics as he conveys it is therapeutic rather than educational or simply nourishing as a practice. Some of the patients he describes with incurable disorders might well adopt the Feldenkrais Method or other somatic modalities as lifelong practices, but for others who can be cured, the cure is the narrative end point. If it comes from an active practice like the Feldenkrais Method, that's great. If it comes from someone passively receiving treatment from, say, high-technology lasers, that's also great.

Fair enough. Many of the people Doidge describes have suffered terribly, and as a reader, one is happy to see them relieved of their afflictions. But in leaving it there, he tackles the issue of objectification of the body in the medical field without tackling it in the culture at large. Doctors and medical researchers do have a disproportionate influence on how people think about embodiment, but if, as Doidge argues, Cartesian views of the body have been at work for hundreds of years, the effects of that kind of thinking have become everyone's responsibility.

Neuroscientist Dr. Peter B. Reiner makes a related point in his 2008 review of *The Brain That Changes Itself* in *The American Journal of Bioethics*:

Doidge's fascination with what might be characterized as the extremes of neuronal plasticity result in a minor but important missed opportunity. While it is clear that substantial brain reorganization can occur after a stroke or removal of a limb, these are

unusual situations that reveal the seemingly boundless possibilities of neuronal plasticity in the face of dramatic deficiencies. In the everyday world where our brains are intact and (more or less) working normally, such large-scale changes in neuronal function are neither likely nor desirable: there is really no need for the regions of my brain that regulate speech to suddenly change gears and begin the task of calculating the trajectory of my arm through space. The plasticity in which Doidge revels is indeed occurring in our brains on a day-to-day basis, but at a much more subtle level, be it fine-tuning our sense of balance as our weight changes or adjusting our appetitive drives as we are exposed to new and varied environments. Including a description of how neural plasticity works in the everyday world would hardly have detracted from the author's thesis, and would have made the universality of his arguments all the more persuasive.¹⁸

18 Peter B. Reiner, "Norman Doidge, *The Brain That Changes Itself*," *American Journal of Bioethics* 8, no. 1 (January 2008): 63, doi:10.1080/15265160801891201.

Recasting Reiner's point from a somatics perspective, we might say that in his enthusiasm for neuroplastic therapies Doidge has missed the opportunity to illuminate neuroplastic worldviews. The fascinating, difficult, and joyous complexity of being human can get lost in that instrumentalizing of our capacity for change. This is where the Feldenkrais Method still has a lot to offer the world of neuroplasticity research. Starting with the concepts of practice and learning rather than that of treatment opens one to somatic experience as a way of life, a broader and more fertile field than neuroplastic therapy as a way of healing.

Doidge is relatively young and a prolific writer. Presumably he has time to achieve the fuller humanism of his predecessor, Oliver Sacks.

"I always wanted to get people's stories and access to their lives," Sacks told an interviewer in 2010.

I feel I'm at the interface of biography and biology, person and person-hood. I remember one man with Tourettes, who wrote and said that he had 'a tourettised soul', it affects one and one affects it—there's a liaison of a sort. A condition is sometimes a collusion, and sometimes a compromise. Although it's up to me as a neurologist to diagnose the disease and to think in therapeutic terms, I always want to address the person as much as the disease, and I'm very glad my own doctor feels similarly. I'm not just a case to him, I'm a person responding to the situation. So I somehow sit between the biology and the humanist point of view.¹⁹

19 *More Intelligent Life*, "Biology and Biography, The Q&A: Oliver Sacks, Neurologist," *The Economist*, December 7, 2010, accessed August 25, 2016, http://www.economist.com/blogs/prospiro/2010/12/biology_and_biography.

Book Review

Several Short Sentences About Writing by Verlyn Klinkenborg

Adam Cole

This is a book of first steps. Their meaning will change as your experience changes. This book contains the bones of many arguments and observations—a vertebra here, a mandible there—but the whole skeleton is what you make of it. You'll find as much about thought and perception here as you will about language. There are no rules, only experiments.
—Verlyn Klinkenborg, *Several Short Sentences About Writing*, Prologue

My directory listing on the Guild's website reads: "Performing Arts, Writing." I have never been asked to assist someone with writing using the Feldenkrais Method of somatic education and, until recently, would have been hard pressed to do so. Last month, however, I received a book that convinced me I am on the right track, both as a writer and Feldenkrais practitioner.

Several Short Sentences About Writing (2012) by Verlyn Klinkenborg is intended for people who would like to improve their ability to communicate in words. And yet, the way in which Klinkenborg asks us to pay attention, both to our writing and to the world around us, applies to any aspect of life that requires making a connection with another person. I am reviewing this book, not only because I wish to recommend one of the best books on writing I have ever read, but because Klinkenborg's approach to teaching and learning will have particular resonance for the Feldenkrais community. His focus on authenticity in writing—that is, the unapologetic reliance on our own observations—has surprising parallels in the work of Feldenkrais practitioners.

Klinkenborg advises writers to pursue strong, straightforward sentences, and to revise these sentences continuously. If you are a writer, you are likely familiar with the editing process, in which you or an outside editor eliminates superfluous information in favor of communicating something specific and relevant. This kind of editorial assistance

resembles the feedback that a Feldenkrais practitioner might give a client. In an Awareness Through Movement (ATM) class, for example, a practitioner might notice that a client is missing the intent of a lesson or doing a movement backwards. As the practitioner offers feedback, the client may become aware enough to change what he is doing and in the process discover something about himself that he had not previously been aware of.

The idea that noticing is as important as doing or acting is the first lesson we encounter in our Feldenkrais training. We make use of what we notice as we undertake a functional movement, both consciously in the choices we make and unconsciously in the integration of our nervous system. The result of noticing, rather than “trying,” “diagnosing,” or “hoping to achieve a goal,” is that we transcend our current conception of ourselves and of our clients, arriving at what we did not imagine possible, or did not even imagine.

Similarly, as writers, we must pay careful attention to what we write as well as to what we notice. We may decide to make a change because we feel uneasy about something we have set down, or we may follow unexpected pathways when we become excited about what has emerged. When we proceed in this way, sentence by sentence, Klinkenborg suggests that we end up expressing far more than we thought we knew how to say, far more than we could have foreseen or planned.

Along with the value of noticing, Klinkenborg discusses the idea of authority, which gives us the confidence necessary to make use of what we observe. With characteristic humor and directness, he gently mocks the notion, evidenced in academic papers with endless references and quotations, that nothing we say is of value unless someone else has said it first. He demands instead that, even in a nonfiction piece, we write from a place of authority based on what we have noticed.

“You were taught in school to repose on the authority of the evidence you gathered,” writes Klinkenborg. “But what if you were to muster your own authority? . . . All the authority a writer ever possesses is the authority the reader grants him. . . . Authority arises only from clarity of language and clarity of perception. Authority is how the reader’s trust is engaged.”¹

¹ Klinkenborg, 126.

Klinkenborg insists that we have a right and responsibility to be authoritative when we write, to acknowledge the truth of our own observations and experience. As Feldenkrais practitioners, we rely on observations rather than diagnoses of our clients, and we speak with the authority of those observations through the language of touch. We must also bring our clients to recognize their own self-observations as having a validity distinct from anything a diagnosis can tell them.

This is the most profound connection between Klinkenborg’s method of writing and Feldenkrais work: cultivating the authentic experience gleaned from our own sensation through attentive self-correcting, the way a child does in the earliest stages of learning and development. As Feldenkrais practitioners, we seek to bring clients to

that state of awareness where they can acknowledge the authority of their own sensation and acknowledge feelings they have suppressed or ignored. When we succeed, the people we work with come to be more present in themselves and act with far greater efficacy than before.

2 Klinkenborg, 67.

Klinkenborg downplays the kind of easy, automatic processes which are sometimes employed in creative writing classes. He advises mistrust of all sentences that seem to flow out of us. In Klinkenborg's experience, "flow is something the reader experiences, not the writer."² After all, he reasons, it is not the writer's state of mind that the reader feels but the effect of the writer's choices.

Flow may be similarly problematic in our work. Clients on the floor doing ATM lessons may feel a flow in their movements, especially if they are exceptionally limber. In the absence of effective organization, this kind of flexibility can be deceptive. The aesthetics of a movement can disguise its ineffectiveness.

In addition, my own desire for the sensation of flow may hamper my ability to do the work. Whether or not my movements with clients "flow," I want to be focused on the actual connection I am making with them, and the impact that each of my movements will have as they translate through my skeleton to theirs.

I just returned from a training where I saw students who had little confidence in their abilities and who lacked a complete picture of what they were doing. Although many of them felt awkward and lacked apparent mastery, they were still able to create powerful change in the people on the tables in front of them. They had been trained to pay attention and to act on what they noticed by pursuing that vital sense of connection.

The decisions I make as I move with my client are analogous to the decisions I make as I construct a sentence. When I push through someone's talus bone into his tibia bone, the movement will have meaning if I can connect the push all the way through the spine, contextualizing the sensation and suggesting functionality. The movement generated by the push gains meaning among other movements and sensations because the connection the client senses can be used in more effective walking, standing, or lifting. I want my sentences to have the same impact as that revelatory movement, and they will if the words are connected in a meaningful way to the things in the world that I share with the reader.

The analogy I am drawing between Klinkenborg's "good sentences" and our "moves" is not arbitrary or coincidental. Both arise from the act of "noticing." Klinkenborg insists that if we write well about what is interesting to us, what captures our attention most, it will be interesting to the reader. Our clients are similarly interested when we communicate clearly about what we are noticing—with our eyes and hands and skeletons—in ATM and Functional Integration lessons.

As a writer, I found myself walking away from Klinkenborg's book with a more profound sense of myself and my capabilities, the way I feel

after a good Feldenkrais lesson. This should come as no surprise, as Klinkenborg has taken the aspects of effective writing he has noticed over time and connected them to my experience. Although I had been employing many of his ideas for years without realizing, it was only upon reading this validation, and recognizing what I had missed, that I gained a new sense of direction and orientation in my work. As a teacher, a writer, and a teacher of writing, I should aspire to create the same sense of connection with my readers, and I will use *Several Short Sentences About Writing* as a guide.

We as Feldenkrais practitioners have a particular challenge in communicating with our clients. Both in speaking and writing to the public, we may find it difficult to describe our work in a way that gives people a real sense of what we can do. If we can recognize the similarities between generating good sentences and the Feldenkrais work we are already trained to do, we may find that we are speaking with authentic voices and making effective connections with our clients through our words as well as our hands.

Developing a Healthy Bias: Four Days with Sheryl Field

Seth Dellinger

This work has the astounding quietness and precision that allows a child—even at the earliest age—to hear themselves and do right for themselves, to do better for themselves.
—Sheryl Field

Sheryl Field sat on the edge of the table, kicking her feet back and forth in the air, allowing the movement to rock her entire body. As she did this she turned her head from left to right, making eye contact with each one of us as she told stories and shared her ideas. She did this almost without pause for four days. At one point, she acknowledged, “I kick all the time, in case you didn't notice. I'm always wiggly!”

Field is not a little girl, but she hasn't forgotten what childhood feels like. The magical experience of learning that pervades each one of childhood's waking moments is at the heart of what she lives and teaches.

Field has over three decades of experience as a Feldenkrais practitioner. She specializes in working with infants and children with motor disorders and developmental difficulties. Since 1999, Field has been Executive Director of the Field Center for Children's Integrated Development. She leads a team of half a dozen Feldenkrais practitioners who see a couple dozen children with a wide range of diagnoses on a daily basis. She also leads advanced trainings and professional development programs for Feldenkrais practitioners who wish to specialize in working with children.

This past January, my classmates from the Feldenkrais Training Program of Baltimore and I had the good fortune to work with Field for an extended weekend. Having reached the third year of our four-year training, many of us were already teaching Awareness Through Movement. We were already aware that many ATMs are based on motor patterns established early in a child's development. Still, for most of us, this was our first opportunity to learn what it might be like to work with children directly.

During four days of guided movement (ATM), demonstration, and discussion, Field showed us how to identify what she considers to be

the foundational patterns of all human movement—patterns that can already be observed in the fetus at the earliest stages of development *in utero*.

We discovered how each person has a bias towards movement in a particular direction, and how learning to recognize this bias in ourselves and others provides a unique opportunity for increased self-awareness. Field also invited us to imagine and revisit the unique psychological experience of being a baby, when *learning how* to move also meant *learning about* our bodies and limbs for the very first time.

Development has a direction, but it is not directed

1 Beverly Stokes, *Amazing Babies: Essential Movement for Your Baby in the First Year* (Toronto, ON, Allenwood, NJ: Move Alive, 2002).

“There is a general sequence to a baby's motor development,” writes movement educator Beverly Stokes in *Amazing Babies* (2002), “but that sequence is not linear.”¹ Similarly, Field told us, “Development has a direction, but it is not *directed*.” In other words, all babies must face similar challenges, but each baby will solve these problems in a unique way, and not always in the same sequence.

Furthermore, the process of human development involves individual preferences and biases. While we share innate tendencies to turn towards light or sound, we also respond uniquely to other aspects of our surroundings. We should certainly take notice if an infant seems to be falling behind on an essential developmental milestone, but we should never expect any baby to progress in exactly the same manner as her peers.

As Field understands it, there are three essential qualities that define the development of all human actions. First, our orientation to the environment hinges on our ability to locate ourselves in the field of gravity. In other words, we need to know which way is up. Second, as we move, we must determine which direction we are moving in. In other words, what are we moving towards? Finally, we must be able to modulate our behavior when internal or external stimuli suggest the need for us to reverse or change direction. These essential qualities, already observable in the movement of newborns, are areas where we can always look to support a child's development.

Long before learning language or high school physics, the baby is learning how to act out her intentions in relationship to her environment—simultaneously sensing, feeling, and acting. She does not gain this knowledge through lying still and contemplating her situation but rather through movement.

As Field led us through a series of Awareness Through Movement (ATM) lessons, she urged us to keep the following idea in mind: the baby is simultaneously discovering her environment and herself. The movement sequences that Field prepared for us mirrored the challenges

that a baby playfully engages as she makes her way from moving entirely at ground level to standing and walking.

“Think of yourselves as fierce newborns!” Field said. “It’s not easy being a baby, going through all of your developmental paces, and some of these lessons might not be so simple for you either.” Indeed, there were many challenges and discoveries made over the course of the weekend, as we wiggled, rolled, twisted, and reached, and as we looked for balance and comfort on our backs, our stomachs, our hands and knees, and, finally, on our feet.

ATM lessons are central to the education of future Feldenkrais practitioners. A trainee lying on the floor will later teach the lessons he is learning and also develop Functional Integration (FI) sessions based on ATM blueprints. In addition, ATM heightens our sensitivity and self-knowledge, a prerequisite for being able to guide others in finding greater comfort in themselves.

However, we have to think differently when we work with a child than when an adult lies on our table. As Field pointed out, children are doing “the same human movements as we are, but with one essential difference: *they have never done this before!*” For this reason, Field stressed the importance of trying to inhabit the mental experience of infancy along with the developmentally significant movement sequences of the ATMs.

Field does not concern herself with the relationship of the different “parts” of a child’s anatomy. Nor does she attempt to position the child to perform a particular action. Rather, through the medium of her hands, Field listens for evidence of how well the child’s movements answer those basic questions: *Which way is up? Which direction am I going? Will I go there or not?*

“Sensations and our perceptions of them define the relationship we have with ourselves,” said Field. Therefore, when there is an interruption in the relationship we have with ourselves, there will be problems with self-regulation.

When we do our work effectively, we are providing the person we touch with possibilities for improving the regulation of her own system. “I don’t try to help the child *do* something,” Field explained. Instead, the goal is to create a context where “the child can *feel herself* better, in order that she can improve her ability to accomplish the actions *she* desires, on her own terms.”

Making vitality the organizing force

Our first opportunity to observe this process was in Field’s interaction with a seven-month-old girl named Yaya, who had suffered a brachial plexus injury at birth. The family had not yet been able to obtain an exact

account of the injury, but it was clear that there had been severing of some of the nerves connecting to the child's left arm. This arm, however, did not lie limp at her side. Instead, Yaya held the arm a bit away from herself at all times. Field commented that this perpetual action demonstrated that there was functioning nervous tissue at the level of the girl's shoulder, at the very least.

This action also represented an enormous and unnecessary effort, which impacted everything else that Yaya did. "Try holding your arm out like that for just ten minutes," Field said. "Then see how you feel and how everything else you do is affected by it."

For about an hour, we watched Field playing with Yaya, always supporting her with her hands somewhere along her back or under her bottom. Just as she had promised us ahead of time, Field hardly touched the girl's left arm.

After the lesson, Field was asked what she was "doing to" the baby's pelvis during their time together and what her goal was as she did this. "Your question is a great opportunity for me," said Field, holding her hands over her head and then swinging them downward, "*to smash that sacred cow. . . there it is, all in pieces!*"

This idea of "thinking in parts," said Field, is a common, and even a well-defended approach, but it "is the biggest obstacle to truly *seeing movement* and doing real Functional Integration. Yes, I was touching different parts of Yaya's body, but what I was really doing was *joining her movement*. With my hands I am finding the place where the movement begins so that she herself can also listen and feel where the movement begins."

And why didn't she put special attention on the girl's dysfunctional arm? Field told us that it is not particularly useful to concentrate in the area where the child is limited. "Instead we take what is working best and hold it up for celebration so the child can learn to know herself through what she does best. We can't remove the injury, but we can try to help tip the scales, as early as possible, *towards making vitality—not difficulty—the organizing force in her life.*"

One simple way that Field supported Yaya in the first lesson was by placing a folded towel under her left hip. This adjustment allowed the girl, who spent most of the hour sitting, to keep the majority of her weight on her right side where she was safer, more comfortable, and would be ready, if necessary, to support her weight by leaning on her healthy right arm.

While we couldn't see all the small and subtle adjustments Field was making with her fingers as she connected to Yaya, what was clear was that Field's intervention was not an interference. Field was in almost constant physical contact with the girl, but she never directed Yaya or pushed her to do anything she didn't wish to do. Instead, they simply played together.

To gain her trust, Field spent a significant amount of time at the beginning of the lesson just making eye contact with Yaya and talking to

her. Eventually, the baby decided to hand over her rattle. “That was the whole lesson right there,” Field said afterwards, because at that moment the infant picked a playmate who was not coaxing or challenging her, but patiently waiting for her to define the game, thereby “allowing her to have her own complete expression.”

By the end of the hour, Yaya would do many things of her own volition, including making more purposeful movements with her injured left arm.

Movement builds the brain

As we enter the third year of our training, my classmates and I already know something about doing Functional Integration. But, again, working with a cooperative adult who lies still on a table hardly looks the same as what we witnessed Field doing with a moving target in diapers! How could we possibly learn to do the same thing?

To orient to this possibility, we spent much of the weekend learning how to see in action—and feel in ourselves—some of the more fundamental patterns of human movement, patterns that begin in the womb.

Field gave a fascinating explanation of early development: by day 49 *in utero*, the fetus begins to move a little left and a little right, more to one side than the other. This bias to one side will be a lifelong feature of that eventual human being's organization. But if this side-to-side movement does not occur at this time, the fetus does not survive.

“This is a point in development when the organism is still nothing more than blood, nerve, and bone—the brain does not yet exist,” Field explained. “In other words, movement precedes the brain and, you might say, *movement builds the brain*. Developmentally speaking, the head, neck, and eyes are as much appendages as the limbs. We can only look to movement itself to explain how the nervous system itself is organized.”

After 10–12 weeks in the womb, three more basic movements have been added to the repertoire of this evolving human organism: folding forward, an arching movement, and a twist. All of these movements are organized slightly differently in one direction as opposed to the other, in keeping with the original bias. Long before birth, these movements are highly practiced and familiar. The unborn baby also has a clear sense of gravity, that fundamental question: *Which way is up?* As Field would often remind us, the newborn does not *learn how* to perform the most basic foundational movements, she *learns about* these movements that are already part of herself.

The first movement lesson that Field led us through was called “The Lamprey,” named for the sea creature that is one of the oldest known vertebrate species, and whose movement is like the fetus at 49 days: all it does is wiggle side to side.

For an hour we lay on our backs on the floor and moved side to side in one plane, eventually forming our whole bodies into a 'C' and then the mirror image of a C. Many of us, myself included, found doing the very first human movement to be quite a challenge!

Instead of bending directly sideways, I always seemed to want to twist. As I swung my legs left and right without bending the knees, my head wanted to roll in the opposite direction. My pelvis also wanted to turn.

After Field called my attention to what I was doing, I finally realized that it was possible to move sideways *without* rotating my spine. And, as Field had promised us, by the end of the lesson we could all clearly feel that we had a bias—a clear preference for wiggling towards one side over the other!

As the weekend progressed we explored folding, arching, and twisting, returning to being lampreys at the end of each sequence. And each time, for some reason, being a lamprey got a little easier. Why was this happening?!

Working with Yaya: Filling in the gaps

“ATM was devised to fill in the need for more experience and the need for further self-correction,” explained Field, “so we can continue to mature.” Revisiting these developmental movements can help us to understand how to work with children because “that’s what the children also require. They need the opportunity, the right circumstances, in order to gain more experiences that are appropriate, that fit their needs—so that they can self-correct and therefore grow, develop, and become more mature, more purposeful on their own terms.”

Although much of what we did on the floor that weekend reminded us of other Awareness Through Movement lessons, the discovery of our bias—and learning to embrace it—created a different kind of experience.

The difference began with how Field oriented us at the beginning of each lesson. Instead of a traditional “scan,” where the instructor guides the students through a systematic process of observing how their different parts lie on the floor while in a nominally symmetrical position, Field invited us to position our arms, legs, and head in “any old way” that we found comfortable. “Unsnap yourself from the grid!” she urged us. “The grid serves the adult process,” which we are used to engaging during ATM class, but “it’s hard to snap a kid to a grid.” At the earliest stages of development, when a baby is still learning about himself, “there is no midline—it’s moving!”

By resting this way—“any old way”—each time we paused between movements, we continually encountered the bias in our spines. “You must pay attention to the bias—it’s precious. *You are not trying to*

straighten out! Without the bias, the kid can't learn! This weekend you are unfettered by gridded-ness."

After discovering our own bias on the floor, Field led us in discovering one another's bias through the medium of our hands. In pairs, we felt along the sides of our partner's spine and, as we investigated and compared, most of us eventually found a clear difference under our fingers: a greater willingness to follow the suggestion to move on one side, and a subtle resistance on the other. This bias "is an organizing force you can never get away from," Field told us. "We need the bias at those moments when we need to move to ensure our survival, to get the hell out of the way of something that's going to bite us." For this reason, learning to find the bias in another person gives Feldenkrais practitioners a key to helping any person improve his movement. (And it's especially useful in working with a kid unsnapped from the grid and constantly on the go!)

After one lesson, I stood up and walked around feeling invigorated, as I often do after ATM lessons. But rather than experiencing the sensation that my spine was straight, I found that my head preferred to move to the right as I walked. And I seemed to lift my right hip higher than my left.

Then I discovered that if I didn't bemoan the lack of a due North in my spine, but, rather, embraced the crookedness, something inside me shifted. The constant striving for an unattainable ideal was no longer there. A new kind of lightness had taken its place.

I wasn't the only one who had this kind of experience during the ATM lessons that weekend. One of my classmates had a pronounced scoliosis and was forced to wear a brace around her rib cage as a child. She said she had always had an image of her back "like a wooden barrel." After one of Field's lessons, she felt her entire back lying flat on the floor "for the first time in my life."

Field celebrated these moments with us and underlined their importance, helping us to understand why Moshe Feldenkrais thought it was so valuable for adults to revisit the infant's experience of learning through movement. By "starting over" the process of learning to roll, crawl, walk, or any other basic action, we can bypass our adult habits and create the possibility of "filling in the gaps" in our development.

The sequences Field led us through were intended to be "an across-the-lifespan examination of fundamental issues in development. You find these at any age. People of every age have something they can look back on and say, 'yeah, I could use a little more of that, just a little more time with that relationship, a little more examination, a little more experience.'"

There is a story about an encounter between Moshe Feldenkrais and the renowned anthropologist Margaret Mead that speaks to the significance of this process. Mead had repeatedly visited a community in Bali where the men were fantastic hunters and fishermen yet could

2 Moshe Feldenkrais, *The Elusive Obvious* (Capitola, CA: Meta Publications, 1981), 34.

not perform basic movements that entailed “hopping from one foot to the other.” Feldenkrais speculated that the deficiency “probably arose from an inhibition or taboo affecting crawling in early childhood.”²

Astounded, Mead replied that the Balinese she met did not allow their babies to touch the ground on all fours for fear that they would grow up as animals! As it turns out, missing this key developmental phase robbed them of the ability to perform certain basic human actions as adults.

Field joked that those of us who practice the Feldenkrais Method actually celebrate when we encounter gaps in our knowledge, since these moments show us what areas we can revisit in order to tackle our weaknesses. Filling in the holes in our developmental process creates a stronger foundation for complex adult movement.

Working with ‘Princess Masha’

The second child that Field worked with was a three-and-a-half year old girl named Masha, who has Down Syndrome. Masha's mother, Ana Kharlamova, is a member of the Baltimore training program.

Before the session, Field explained that children with Down Syndrome have structural differences in their skeleton, such as in the vertebrae of the neck and the way in which the femur enters the hip joint. Their limbs are somewhat shortened, and they have a generally lower muscle tone. This situation often creates the need for standing with a wide stance to maintain balance. This organization, however, is not so ideal for walking.

“Masha is perfect. She feels no deficit,” Field told us. Indeed, we had all seen Masha playing many times, with all the excitement and vigor of any child her age. However, because of her wide stance, Masha walked with a “pounding” gait. Field explained this would cause her to experience soreness in her joints as she grows in size. “We take a lifespan approach,” Field said.

With Masha, the “getting to know you” process was much longer. Many times in the early part of the lesson, she would squirm away or try to remove Field's hands from her body. “Sorry, that's my job,” Field would say each time, and continue working. Still, it was perhaps a half hour before they established a consistent rhythm together. Afterwards Field explained the importance of developing this balance of patience and persistence.

“I'm not watching the clock, but I feel the clock ticking—her *life* is ticking.” There is urgency to working with children that doesn't exist with adults, because they are in the process of forming life-long patterns and the structures of their adult bodies. Such a situation does not conform well to a waiting approach. “I have a job to do, and I'm not giving her the option that I'm not going to be touching her. She's not my boss, but I'm not her oppressor, either. All relationships are a negotiation, so in that way it's no different than anything else.”

Eventually, Field sat on one side of Masha handing her blocks, which the girl took and handed to her mother, who sat on the other side, stacking them into a tower. “The configuration of the student on the table is just as important as what you do with your hands,” said Field. She pointed out to us that by playing this game Masha was repeatedly practicing movements of twisting and arching.

In the course of an hour, Masha’s posture transformed from being practically curled up in a ball as she hid her face to sitting tall as she deftly shifted her weight from one side of her pelvis to the other, reaching in different directions to play. Her demeanor completely shifted as well.

After rejecting many toys that didn’t interest her, Masha suddenly became fascinated with a roll of colored tape. Field ripped off pieces of the tape for Masha to stick to her mother’s clothing. Eventually, Field stuck a few pieces of tape to Masha’s shirt, forming the letter M. “M for Princess Masha!” she said.

Masha bloomed from that moment onwards. And when her father came to take her away at the end of the lesson, Masha seemed to have decided that she truly was a princess. Having ignored the several dozen spectators around her for the past hour, she suddenly began waving at us as she floated off in her father’s arms. As he walked past a particular gentleman whom Masha recognized, she reached towards him, and, when her father brought her closer, kissed him on the cheek.

This gesture provoked an audible reaction from onlookers. Masha looked about the room again and began blowing kisses in every direction, continuing to wave as she rode away on her chariot, the colorful ‘M’ still emblazoning her chest to remind us of her royal status.

To correct is incorrect

Feldenkrais once gave an important lecture to his students about the relationship we form with someone whom we touch. “To correct is incorrect,” he said, and this is an idea that Sheryl Field has always taken very seriously.

If our work is meant to align as closely as possible, to be able to mirror back what the person is—so that they can do better for themselves, on *their own terms*, from *their own starting place*—we must afford them that right: to know themselves in our hands. We can’t violate them by doing something to them. This work has that potential. This work has the astounding quietness and precision that allows a child—even at the earliest age—to hear themselves and do right *for themselves*, to do better *for themselves*.

Indeed, as we watched her with Yaya and Masha that weekend, there was much to admire about the way Field was working, from her easy

demeanor with the children to her skill at creating functional learning situations through play. And yet, at the end of each lesson, there was a tangible sense of what each of these two little girls had themselves accomplished. Field came back to this point again and again during our time together. “It’s not about what you (the practitioner) do,” she said. “It’s about what they can do with what you’ve done.”

Describing her work with Yaya, Field explained, “With my hands, I say: ‘Here is the place of your greatest ease.’ We tend to ignore that place when we [use unnecessary] effort.” By helping the child identify the place where she is most efficiently organized, instead of focusing on her disability, Field sends her a different message: “‘OK, fine, you have this limitation—but look! You can still breathe, you can still move, you can still play!’ . . . That’s a very different orientation than ‘correcting’ or ‘teaching.’ With this approach, integration can happen very quickly.” And for Field, “that possibility is the most important thing for me about my work.”

Another aspect of Field’s work that emerged from the demonstrations with the two girls was how she oriented the parents towards their children’s full potential. In order to accomplish this, she had to be a keen observer of the parent-child relationship and, while providing new information, not do anything to interfere with it.

For example, Field told us that before each lesson she thought deliberately about how to create a learning situation for the child that would be less stressful than their daily routine. “I watched how the parents moved themselves in relation to her and made calculations about my own movement’s tempo.” The parents were moving quickly, “so I dialed it down a notch—but not too much, so that when she goes back with her parents after the lesson she can use what she takes from me because it’s not too unfamiliar.”

In her first lesson with Yaya, Field interacted with four adults—the child’s parents and paternal grandparents. When she discovered Yaya’s bias towards one side (just as she had taught us to do), she demonstrated this to her family. To clarify the idea for Yaya’s grandmother, Field invited the woman to sit on the table and briefly demonstrated with her hand on the woman’s spine that she, like Yaya, had greater comfort in resting her weight slightly towards one side as opposed to the other.

At the end of the second lesson, attended only by Yaya’s parents, Field showed them how holding their child in a particular way would give her the greatest feeling of safety. “She likes to scrunch on *that* side,” she said. She also cautioned them, despite their desire for Yaya to improve quickly, not to try to rush the process of learning. For example, she explained that it could be a mistake to try to coax Yaya into standing or walking before she was ready.

“Allow her to be in the place where she doesn’t have to go on high alert, but where she has some facility and, therefore, the opportunity

to explore her own variations,” she told them. “She will find what she’s looking for if she is given the chance.”

An example of this kind of interaction took place at one point during Yaya’s second lesson. Field held the girl in her lap in such a way that she could rest her left arm on the table, temporarily deactivating the perpetual contractions of her left shoulder. Field pointed out that Yaya immediately began drawing her knees up into the air, a movement that would be part of the pattern of moving from sitting to a crawling position. This was significant because it was a transition that Yaya was normally only exploring to the right. Field helped us see what we might have easily missed in this momentary knee lift: this little girl’s intelligent nervous system seizing an opportunity to learn and grow.

In this second lesson, we could observe that Yaya’s left arm was resting much more than it had previously. She still lifted the arm unnecessarily, but she didn’t take it as high. At the conclusion of the lesson, she demonstrated that she had come to a new relationship with herself in which she could use her left arm with intention: she squeezed Daddy’s finger with her left hand.

Parent and child: First understanding of the social environment

Being a parent can be exhausting, especially if you have a child with special needs. It takes a special kind of patience to both support him and also encourage his independence. Parents learn when to do things for the child that he cannot do on his own and when to allow him to search for his own solutions. Discovering this kind of balance means recognizing that the child’s options are always changing, and that his potential is often greater than it may appear at any given moment. Feldenkrais’ discoveries about the human nervous system were not limited to the inner workings of the body. He was keenly aware of how we grow and relate in a social environment. In *The Potent Self* (1985), Feldenkrais wrote:

From the earliest moments of our lives, we can distinguish two sorts of action: (1) those where we are left to ourselves to work out our own way, as in learning to comply with the demands of our bodies, and (2) those where the adult in charge of us becomes emotionally excited and encourages us to continue our actions, or discourages us to the best of her ability or judgment. There is no clear-cut subdivision of these actions; that is, actions in which we are left to work out our own way suddenly become the focus of adult interference, and vice versa, actions that were strictly

3 Moshe Feldenkrais, *The Potent Self: A Study of Spontaneity and Compulsion* (San Francisco: Harper and Row, 1985), 8.

supervised are just as suddenly left to take their own course. From this process, we emerge with (1) a series of personal behavior patterns with which a comparatively low emotional tone is associated and (2) others that are always accompanied with a high emotional tension.³

Field reminded us that the adult in the child's environment plays a crucial role in the formation of the child's understanding of what she is and is not capable of, even at a preverbal stage. "The way a child is handled reminds them of how they are thought of. 'Developmentally delayed' simply means that some children need more time to construct what is necessary to move to the next stage. This is why we don't help when we try to make them 'catch up.' We serve them better by giving them the time and help they need to find necessary means to advance on their own terms."

As I took in the weekend, I had a lot of new things to think about—both as a Feldenkrais practitioner-in-training, and as the father of an extremely bouncy six-year-old daughter named Maria Carolina. Maria has been blessed with good health, but like any young child, she often experiences tummy aches or other pains that require band-aids and kisses. My daughter also knows that Daddy does a funny thing called Feldenkrais, which is supposed to make you feel better, so periodically when something hurts she will ask me for "a lesson."

Before the weekend with Field, I had played around with Maria on my Feldenkrais table on a couple of occasions but had never done any serious work. As it turned out, one evening when I returned from the training session, Maria said her leg was hurting and seemed truly distressed about it.

When I examined her, I noticed that she was holding her foot with the ankle extended, pointing the toes, and would not give up the position when I tried to gently flex her ankle again. Instead of taking out my table, I just sat with her on the sofa while she watched cartoons, feeling along her spine to discover her bias. When I found it, I began to support her in different ways with my hands on her back or under her pelvis.

When it was bedtime, she practiced reading a story to me while I played with her feet. She was still agitated, twitching her toes without noticing what she did, but beginning to calm down a bit. Whenever she squirmed too much, I returned to placing my hands on her spine or pelvis, supporting her in her bias, "taking over the work for her," as we would say in training. After about twenty minutes of this, Maria yawned and announced she was going to sleep, seeming to have forgotten about her leg. So I kissed her goodnight, and the next day I thanked Sheryl Field for giving me the opportunity.

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