Creating Optimal Learning Conditions:
A Practical Application of the Feldenkrais Method® in Music

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The Feldenkrais Method uses movement to increase self-awareness and provide a person with new options outside her habitual patterns. It is grounded in the theory of neuroplasticity—the idea that the brain learns by changing its structure and functioning in response to movement, thinking, emotions, and the environment.[1] By increasing one's awareness and expanding one's self-image, the Feldenkrais Method can help musicians to engage themselves more expressively and spontaneously in the music-making process. Most importantly, Feldenkrais lessons are designed to create optimal conditions for learning, and these same conditions can be used to learn music more easily. All of these ideas can be used in lessons with students or in the practice room with oneself. Learning how to learn and becoming one's own teacher is the only way to continue progressing past school and throughout life.

The Method and Its Founder

Dr. Moshé Feldenkrais (1904–1984), the founder of the method, was an Israeli physicist and judo black belt. As a scientist, his choice to explore movement was simple: it is easily observable and, due to the acute way movement draws the attention of the nervous system, it provides a direct way to affect change in behavior. The Feldenkrais Method uses an approach of working with the nervous system instead of against it, which helps the nervous system to learn better. The Method uses a holistic approach based on the observation that no part of the self can be isolated from the rest—each part of the body works in conjunction with the whole, and the mind and body always influence each other.

The Method has two parts: Awareness Through Movement® (ATM) group classes, and private, hands-on, Functional Integration® (FI) lessons. In ATM classes, the practitioner gives verbal instructions that provide structure for students to explore a certain movement. A class lesson often starts with a basic movement and then builds on that idea with variations of the same movement or by connecting it to other movements. Throughout the class, the student's nervous system differentiates between helpful and extraneous muscle tension, resulting in easier and more graceful movement. The process is similar to how a baby learns to roll over, sit up, or crawl. Babies experiment playfully and results appear somewhat spontaneously.

In FI lessons, the practitioner manipulates the student's body to give her a better kinesthetic understanding of how she habitually organizes and coordinates a movement and to suggest how to organize that movement in ways that might be easier or more appropriate for different situations. The principle is the same:

the nervous system sorts out which movements are efficient and which involve extraneous effort, resulting in a reorganization of the self. Throughout an FI, the "fight or flight" part of the nervous system relaxes, which not only feels quite nice but allows the nervous system to absorb new information more deeply. Often the student is unable to verbalize the changes, but clearly senses a difference. The ability to verbalize something, however, is not necessary for learning. One would never say that a person cannot walk, notice patterns, or play an instrument just because she cannot explain exactly how she does it.

Small, Slow, Easy Movements

The key to rewiring the brain (i.e. learning) is neurodifferentiation, which is the ability of the brain to detect differences in quality of movement. A person can best detect differences when the original stimuli is small. In psychophysics, this is called the Weber-Fechner law.[2] For example, if a person were carrying a heavy box, she would not be able to notice the change in weight if a piece of paper were placed on top. However, if she were holding a piece of paper, she would easily notice the weight of a second piece of paper. This is to say that one learns best when movements are small, slow, and use little effort.[3]

Since the brain will automatically learn from new sensations and experiences, it is better to relax and let that learning happen than to force it. Practicing at slow tempos and with small, gentle finger movements will help this process. Speed increases naturally as movements become easier, so focusing on increasing tempo is not necessary.

Patience

Interest and attention are crucial for learning, but frustrated students are caught up in their frustration, which draws their attention away from noticing sensations. Prompting a student or oneself to pause for a moment before continuing allows the student to let go of the frustration and refocus. Making jokes or empathizing with their frustration can also lighten the mood. It is important that the student is absorbed in the process of learning, rather than worrying about the end goal.

Physical and emotional boundaries expand naturally with the cultivation of a patient, non-judgmental attitude, making willpower unnecessary. The ability to be flexible will prove more useful in becoming adept at a musical instrument than will-power will.[4] Kind, patient, and objective directions towards oneself or a student are the best way to provide opportunities for learning.[5] It is important to be able to say, "That's good enough for today," and come back to the task the next day. Patience is key.

Because of all the changes that take place in the brain to learn a new skill, one of the biggest factors in learning is time. It is easy to become frustrated when one practices and does not see results, but learning happens in cycles and relapses are a part of progress. They are not setbacks or lost time. Some days, one will make progress in leaps and bounds and the next day have to start again from the beginning. Over

time, the relapses become smaller and more infrequent until one is able to move onto the next step without relapses.[6] It is important for one's sense of accomplishment to remember that these relapses are in themselves progress, not regression.

Safety, Non-Judgment, and Empowerment

In order for the student to learn, it is important that she feel safe and comfortable. It is usually easy in music lessons to preserve the student's physical safety. However, it is also important that the student feel comfortable experimenting and trying new things without fear of disapproval. The less you correct the student, the more she will open up, experimenting with musicality, faster tempos, or whatever may be out of her comfort zone. It is easy to point out what a student does wrong, but often the student already notices it and is in the process of figuring out how to improve it. In this case, pointing out shortcomings can diminish the student's confidence and can cause frustration. Of course at times, the student does not have the finely tuned ear to hear, for example, that she is out of tune or that her vibrato is unmusical; in such circumstances, safely helping the student to notice and make a distinction can be to her benefit. It is important that the student be in control of her own learning and begin to take charge in becoming her own teacher. The more the student feels empowered, rather than dependent on a teacher and the teacher's approval, the more she will continue to grow musically. This also means the student will continue to progress during times without lessons and far into her career.

Experiencing Things in a New Way

One technique utilized in the Feldenkrais Method is exploring how one's experience of a movement changes in different orientations in space. For example, learning to do a handstand can improve the organization of one's skeleton in standing, because it explores the same position from a different perspective. Since one plays piano by pressing the keys with the pads of the fingers, one can learn from the experience of flipping the hands over and pressing the keys with the backs of the fingers. When the movement is not habitual, it will not involve as much habituated tension, allowing one to learn easier. A personal favorite, especially for tension in the left wrist and forearm, is to play bassoon lying on one's back on the floor. (The bell can be propped up on a couch so the bocal reaches the right height for the mouth without the bassoonist needing to support the instrument.) This reorganization in gravity alleviates the weight of the instrument and reminds one kinesthetically how little tension is possible in the arms. It also changes the posture, breathing, etc., allowing one to explore new possibilities.

A person knows where she is in space based on sensory input from the semicircular ear canals (which detect position in 3D space like a gyroscope), eyes, hips, ankles, and bottoms of the feet.[7] When one of these is changed—for instance, if a person is blindfolded in one or both eyes—the person's sense of where she is in space changes, which means her habitual reaction to that orientation in space is not in play.

This idea is similar to how practicing a passage with different rhythms or playing it backwards can help one's technique become more facile and integrated. Other variations to experiment with include: playing without glasses or contact lenses (if applicable), using a different harness or seat strap than usual, standing if one is used to sitting, putting a folded towel under one buttock, placing the music stand further away or at a different height than usual. In all of these variations, the goal is to feel something new, so start with something simple like scales or long tones and pay attention to the kinesthetic sense more than the accuracy of playing.

First Approximations

Rather than trying to figure out everything in the first try, remember that learning is a process and it takes time. Try doing initially just what is easy. If a student has trouble with intonation, maybe prompt her initially to be within 15 cents of in tune, or even just identify whether she is sharp or flat. Once that feels easy, she can hone her abilities to play within 10 cents, and then 5 cents. This way the learning is gradual and the student can feel good about her abilities and progress. If one attempts to be perfect at something new on the first try, it creates pressure and detracts from focus on improvement. If however, one starts with a first approximation, doing only what one can do easily and comfortably, one can easily notice where there is room for improvement, and the potential for improvement is infinite and can even surpass the original goal.[8]

Taking Care of Oneself

The Feldenkrais Method advocates doing movements so that one could ideally do them *ad infinitum* without tiring or injuring oneself. Much emphasis is placed on resting when there is any discomfort. If the student has a genuine interest in learning the instrument, the interest will guide and fuel the learning, so pushing the student is not necessary. This interest and passion is crucial for the future of the student's musical career. Encourage the student to take control of her learning and to progress at her own rate. Physically and mentally, she must feel empowered to rest whenever she needs to rest. Continuing to practice regularly is the most important thing, and the risk of injuring oneself, developing an aversion to music, or being unable to perform at one's peak the next day is not worth the possible gain.[9] The energy saved in avoiding fatigue creates more progress than straining and exhausting oneself. When a student walks into a lesson or the practice room fresh and ready to learn, she will see more progress than if she is worn out, stressed, or injured. Pushing a student past what is comfortable for her will do more harm than good.

Conclusion

The Feldenkrais Method creates a framework for students to learn to feel themselves and to take control of their own learning. It gives one the opportunity to learn to

listen to oneself and to others. Applied to teaching a musical instrument, these ideas can prove quite useful. When students take care of themselves, make first approximations, focus on feeling themselves, and are in a safe, supportive environment, their potential for learning is huge. These ideas are a great start, but if you are interested further, seek out an Awareness Through Movement class in your area or find a practitioner at feldenkrais.com.

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Endnotes

1 Norman Doidge, "Moshe Feldenkrais: Physicist, Black Belt, and Healer" in *The Brain's Way of Healing: Remarkable Discoveries and Recoveries from the Frontiers of Neuroplasticity* (New York: Viking, 2015).
2 David Zemach-Bersin, New York VII Feldenkrais Professional Training Program (August 2015-June 2019), August 2015.
3 Doidge, "Moshe Feldenkrais".
4 Moshé Feldenkrais, *The Potent Self: A Guide to Spontaneity*, (San Francisco: Harper & Row, 1985), xxxix.
5 Feldenkrais, *The Potent Self*, xxxiii-xxxix.
6 Moshé Feldenkrais, *Body Awareness as Healing Therapy: The Case of Nora* (Berkeley, CA: North Atlantic Books/Frog, 1993), 28.
7 Doidge, "Moshe Feldenkrais," 305-306.
8 Rich Goldsand, in discussion with the author, Spring 2015.
9 Peter Shmock, "Strength Training the Feldenkrais Way", workshop, April 2015.

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