Gravity and Time

One of the defining features of Feldenkrais' lessons is that they are often done lying on the ground. Moving while on the back or the sides appears to provide an altered, sometimes greatly reduced relationship with the pull of gravity. Reaching, twisting, rolling, all of these things can be done in the plane of the floor and with the floor's support.

As both a scientist and judo practitioner, Feldenkrais was well-acquainted with gravity in its theoretical and practical impact on the body. He was fascinated with the way infants slowly develop to stand upright. He was similarly fixated on providing the opportunity for the average person to experience the judo black-belt's flexible pelvis and free head and neck, characteristics often made difficult by the relentless pull of the planet on our body mass.

Among Feldenkrais' insights was the idea that once a movement was understood with sufficient clarity, for instance an effective translation left and right of the pelvis, it would undoubtedly be improved in its execution. For Feldenkrais, gaining that clarity meant removing gravity from the picture, at least for a while. Awareness of the interrelationship of the parts of the person as they did the lesson in question, and the heightened sensation that came from smaller, slower movements without the taint of gravity, would provide them the clarity for improvement once they returned to the gravitational field.

There is a lovely analogue in this insulation from gravity to the study of music. I describe it here as a means of further legitimizing the approach in question by providing it with a kind of neurological basis. Perhaps examining the study of music in this way will further illuminate Feldenkrais' motives for the person moving on the floor.

Feldenkrais gave little-to-no advice to musicians in his writings, so I cannot make the claim that he had this analogy in mind. In addition, musical improvement can be found through purely mechanical means via a Feldenkrais lesson, without ever making resource to actual musical training. Nevertheless, the parallel between a tried-and-true musical practice and a Feldenkrais lesson is illuminating to both areas.

The practice to which I am referring is "slow practice." This entails greatly reducing the tempo of a piece so that it can be studied and executed with more accuracy. The idea is that once a player has mastered a piece of music at a slow tempo, then they may gradually, or immediately, take it to its proper speed and find themselves able to master previously confounding passages.

I tend to take my students one step further than simply “slow,” into something I call “start-stop.” In “start-stop” practicing, students may neglect the idea of steady tempo altogether. At any point, they may pause in the process of playing to examine the next move they must make.

“Start-Stop” tends to work very well at providing clarity in a musical passage by avoiding the reinforcement of false pathways, otherwise known as “fingerslips.” It does not automatically translate into a perfect performance. However, students can use “start-stop” to get clarity as a pre-requisite to playing in tempo.

Playing fast is not the same experience as playing slow. One cannot attend to every detail of a piece of music while playing fast. One instead keeps larger movements and gestures in one’s mind while allowing the details to “take care of themselves.” One only attends to those details when they are faulty.

I began enacting start-stop after reading an article that suggested that virtuoso pianists learn music more quickly because they make fewer mistakes early on…fewer finger-flubs, fewer reading errors. When the hands play incorrect notes, it has the effect of suggesting erroneously to the mind that there is more than one way to play them. Avoiding mistakes reinforces the optimal path the hands must take.

For example, imagine a student is practicing their C-major scale, hands together, up and down over two octaves. Although the two hands are playing the same notes in the same order (CDEFGABCD…) each hand is doing a very different dance. Because the hands are symmetrical and not identical (thumbs face each other), if the hands both play the notes CDEFG to the right, the right hand will use fingers 1,2,3 and then flip to the thumb to continue 1,2, while the left hand (playing the same notes an octave lower) will play with fingers 5,4,3,2,1.

The discrepancy of movement between the two hands can be confounding for a beginner. It may take a young child months or more than a year to master this skill of playing a simple scale with hands together. “Start-Stop” is an invaluable part of this process.

Therefore students are asked to stop during their playing when they are unsure, rather than continue into a mistake. I encourage my students to discover during their pause exactly what the next notes and fingers should be, and only to continue when they are *sure*. Once they have mastered the scale “start-stop,” they are encouraged to take it back into a steady tempo, slow at first, and then a more natural performance tempo.

What strikes me as I teach the “start-stop” method is how much it resembles bringing a movement to the floor. At the end of a lesson, Feldenkrais does not leave the lesson on the floor, slow and gentle, but asks that the knowledge gained from down there be integrated. Just as music students are asked to play their piece in tempo, having attended to the details out of time, Feldenkrais students are asked to enact their lesson in gravity at a reasonably “normal” speed.

This analogy between music practice and Feldenkrais lessons suggests that time in music can be seen as equivalent to gravity in the physical world. Tempo serves as a kind of "musical gravity," a limiting and shaping force that hinders, but also provides structure.

To be sure, gravity itself is involved in playing a musical instrument. However, the analogy in question is really between the intellectual act of learning a piece of music and the physical act of learning a human function like reaching. Just as a movement can be taken apart on the floor, but only sufficiently understood when enacted upright, most pieces of music must be played at a steady tempo to be intelligible. Imagine your reflection in a funhouse mirror. If the mirror is distorted enough, you will fail to recognize your own face. Similarly, something ubiquitous like "Happy Birthday" can be rendered unintelligible by slowing it down and stopping in odd places. "Happy bir———thday to———you, Hap———" etc.

You can imagine that a movement like reaching, something we do every day, might also be unrecognizable when done on the floor, away from any reachable object, and slowed down and examined on such a micro level. In fact, upon doing a Feldenkrais lesson and following the sometimes cryptic instructions, we may not realize what the main function is that we are improving. By contrast, we can only discover the ultimate aim of the lesson by standing and speeding up the things we had heretofore been doing slowly and out of gravity.

Feldenkrais' three criteria for studying a function, namely "manipulation, orientation and timing," certainly include time as an element of mature movement. However, the time-aspect of the function is often eclipsed by the more pressing questions of manipulation and orientation that tend to confuse us more. Nevertheless, removing time from the equation is as much a part of the lesson as minimizing the pull of gravity.

Because the nature of music as a creation in tempo forces into prominence the management of time over manipulation and orientation, its removal has a more pronounced effect on the resultant improvements than one might see in a Feldenkrais lesson. Note, however, the instructions in a Feldenkrais lesson to "go slow" serve to do more than give a client permission to relax. They temporarily decontextualize the gordian knot of a movement tied up in parasitic habits.

So a study of gravity is also a study of time, the time it takes for a dropped foot to strike the ground, the amount of time one can remain upright without tiring. The removal of the client from gravity is, as well, a removal from time, an opportunity to experience a kind of timeless curiosity that resembles the infant's playfulness and results in a more attuned experience of a function that must by necessity be automated when put into a higher service like throwing an opponent or coming down a staircase. The relationship of time to gravity, profoundly explored and expressed by physicists from Newton to Einstein, interplay in basic and commonsense ways for the purposes

of our own improvement, and those of us who take the time to study these relationships are the better for it.