Addendum to Fundamentals of Piano Practice, Third Edition

Dec. 29, 2019

1. Book Reviews

Cienniwa, Paul, *By Heart: THE ART OF MEMORIZING MUSIC*, 2014, 93 pages, index, no references (bibliography).

This is a somewhat useful book; however, for a book written in 2014, there are no references, indicating a lack of sufficient research, as there are already plenty of publications on memorizing that are more extensively researched. As a result, the material often comes close to final product, but is not quite there, is missing some major components, and contains a lot of material not related to memorizing. However, writing a book solely on memorizing is impossible because memorizing impacts so many aspects of learning and performing piano.

His method consists of dividing the piece to be memorized into short sections identified by "landmarks". These sections are memorized at slow play with the metronome, both by playing and by using mental play (away from the piano). Meditation is recommended for combating nervousness. He divides the memorizing process into three stages, but there is really nothing new at each stage; they are basically the same procedures conducted at higher levels of perfection.

Good advice:

- (1) relying on tactile memory is a bad idea, can create problems; to get away from tactile memory, use slow practice,
 - (2) memorize first, then learn (practice) it,
- (3) mental play is essential for memorizing and performing, and is an integral part of the memorizing process,
 - (4) over-practicing leads to numerous problems,
 - (5) honesty and morality are very relevant to learning piano,
 - (6) don't learn new pieces just before a performance,
 - (7) repeat performances are very difficult, so don't play your heart out just before performing,
- (8) don't put the music stand up with sheet music on it because you will not be able to hear your playing, etc.

All of these advice are in my book.

Bad advice:

- (1) listening to performances and recordings is bad for learning and memory,
- (2) recommends too much use of the metronome
- (3) nothing about performance preparation routines, etc.

These topics are also discussed in my book; there are numerous other mistakes, instances of poor logic and inconsistencies

This is not a textbook on memorizing, but one pianist's account of his experience starting as a harpsichordist (no memorizing), transitioning to a pianist having to perform from memory. Thus, to get the most out of this book, you must be able to distinguish the good advice from the wrong ones.

Feldenkrais, Moshe, The Elusice Obvious, The Comnvergence of Movement, Neuroplasticity & Health, 2019, 166 pages, bibliography, index. (in process).

2. Hearing Loss & Ear Wax, Vertigo (draft)

(1) Ear wax can cause infections and hearing loss; therefore, everybody should see an ENT (Ear, Nose, Throat) doctor to have the ear examined and get a hearing test, and learn how to remove ear wax by themselves. Doctors always frown on use of q-tips or ear wax removal tools because the part of the ear wax that affects hearing is generally way inside the ear canal, close to the ear drum. Any effort to dislodge this ear wax can push it further in and aggravate the situation.

The most popular safe way to clean the ear canal is to use a 3% hydrogen peroxide solution. Lie down horizontally so that one ear is pointing up. Take an eye dropper and put about 0.5cc of the peroxide into that ear. You can usually hear a bubbling sound as the peroxide reacts with the ear wax and creates bubbles:

$$mH_2O_2 + n(CH) \Rightarrow yCO_2 + zH_2O$$

where (CH) represents ear wax. This is an innocuous reaction that does no harm, but the peroxide will react with the wax to dislodge it. After about 5 minutes place some tissue paper against the ear and stand up, letting the solution pour out and be trapped by the tissue. Wipe off as much of the liquid as possible and note if any wax has come out. You can also rinse the ear with warm water (right after the peroxide treatment) using the ear rinsing bulb that can be obtained from a pharmacy. Close the sink drain so that all the rinse water is trapped in the sink so that if any large particles of wax are dislodged in this way, you will be able to see it in the sink. As a final step, dry the ear canal with a q-tip by tilting the ear down and inserting the q-tip about one-quarter inch (0.5 cm) into the ear.

Those with ear wax problems will experience an immediate improvement in hearing. Especially if you rinse with water, you may feel a bit dizzy or nauseated after cleaning, so be careful about your balance until you are sure that your balance has not been affected. For those with tinnitus, improved hearing can reduce the tinnitus because when all sounds become louder, the brain automatically turns down its amplification.

Although this is the most commonly used method, it may not be the most practical because it does not use the natural ear wax removal mechanism of the ear. An alternative method using mineral oil may work better, mainly because it is simpler. Lie down with one ear facing up and put three drops of mineral oil, wait five minutes, get up and wipe off any oil that spills out of the ear; then repeat for the other ear, three times a week. This softens the ear wax so that the natural motions of the hairs in the ear that sweep the wax out can function. You can help this process greatly by using q-tips to remove this ear wax that accumulates near the opening of the ear, every time you take a shower because during showering water inevitably enters the ear and further softens the ear wax, making it easy to clean out. Do not push the q-tip deep into the ear because this can push any large pieces of wax back into the ear or even damage the ear drum; simply place the q-tip at the opening and twirl it between your fingers to suck up all the liquid.

(2) Almost everybody experiences vertigo at least once in a lifetime. Because it can be such a debilitating and traumatic experience that can result in unnecessary emergency visits to the hospital, etc., it is helpful to know what vertigo is before it happens.

Vertigo is a malfunction of the balance mechanism in the ear that causes the visual field to spin around, causing nausea, vomiting and loss of balance. It is very rarely fatal. The only immediate remedy is to close the eyes and lie down in a position which results in minimal symptoms. You may be able to only drink small amounts of liquids without vomiting. It is usually caused by an infection that

displaces the otoliths from their normal positions. Colds, etc., can cause vertigo and it can last from a day to several weeks. Once you experience a severe case, your chances of getting it again are greatly reduced because the initial infection immunizes you against that particular infectious agent. If you do experience another incident, it is usually much milder.

In severe cases, the doctor may prescribe medications to ease the discomfort from nausea and to deal with any infections or inflammations. There are numerous articles on vertigo such as:

http://www.webmd.com/brain/vertigo-symptoms-causes-treatment

so search the internet if you need more information. There are home remedies for some types of vertigo:

http://www.dizziness-and-balance.com/disorders/bppv/home/home-pc.html

again, search the internet for the latest info.

3. Why Do We Enjoy Music? (DRAFT)

Why we enjoy music is not a mystery. We enjoy music because it is a language we use to communicate; therefore, we can enjoy or not enjoy it. It is no different, in principle, from the spoken language or visual inputs. Thus asking why we enjoy music is analogous to asking why we enjoy conversations or reading a book, or viewing a beautiful sunrise. We have auditory, visual and tactile inputs that we can enjoy. However, trying to answer why we enjoy a specific piece of, say, a piano sonata is a more meaningful task that needs further investigation, and is the subject of this section.

I, personally, enjoy music for two main reasons: (1) making music that moves the audience and (2) once you learn how to read music as a universal language, you are basically carrying on a one-to-one conversation with some of the greatest geniuses that ever lived. You find that they discuss lots of different subjects: mostly about how to compose (expand) music, but also numerous other topics, such as math, physics, emotions (humor, joy, sadness, pain, etc.), acoustics (unusual human auditory responses), history, story telling, etc..

There are general principles that contribute to the enjoyment of music. Because music is a language and we evolved to acquire the spoken language even from before birth, the urge to communicate using music starts before birth. Thus babies produce many different sounds that contain elements of music such as pleasant or unpleasant. Every spoken language has rhythm and babies pick up these rhythms from before birth because the auditory system is functional at that stage and the baby can hear the mother speaking. Evolution has conditioned us to enjoy exercising all our abilities in order to develop them; this is why children play, and we enjoy sports and games. Thus the first general principle of music enjoyment is that we enjoy exercising our auditory abilities because it helps us to develop them. Just as the lack of language development slows down brain development, musical stimuli will help this development.

Before considering more detailed explanations of why we enjoy music, it is useful to understand the complexity of the real world. Every time we encounter a very important, very good, or very useful, etc., principle, we find that there is not one reason why it is so "very" – we always find that there are many reasons, which is one of the reasons for the "very". Thus, as we dig deeper into details of what makes music enjoyable, we will find more and more reasons. We can only hope to pick off the general and major explanations, with the awareness that any such list will be incomplete, and which one is

more important than another will be subjective. For example, different persons may have different reasons for enjoying music, and one person may enjoy music that the other dislikes.

We must also identify specific reasons. For example, the answer to the question, "Why do we enjoy reading books?" is also simple, because it is a language. But there are also specific reasons, such as, the book may contain tragedies, exciting episodes or useful information. In order to be able to identify these reasons, they must first be defined. In music such definitions are more difficult than in spoken or visual inputs because they have not been adequately analyzed and defined historically. This situation was a natural consequence of the fact that you can enjoy most music without such definitions because most of the abilities to enjoy music are inborn.

Most music is composed of rhythm and melody, that operate in the spaces of time, volume and pitch. We now examine how these are used to create a language that is basically inborn. (not yet finished)

Outlines of future topics:

4. Composition theory: structure and source of inspiration

Structure is important for two reasons:

- (1) to expand the composition: most amateur composers make the initial mistake that music is composed by inspiration and composition rules. Composers actually spend most of their time expanding the music structurally and most of the popular compositions by Mozart, Beethoven, and Chopin will show you how they do it (add examples).
- (2) for inspiration: inspiration doesn't just appear from nowhere; we must know how the brain finds inspiration. Most popular music is found to consist of simple, short motives that somehow inspire the brain to discover musical ideas. One of the most common devices is simple repetition, as Mozart demonstrated. The basic theory here is that inspiration is impossible without restrictions and guidelines: without them, the brain is faced with an infinity of possibilities too many for the brain to process. Etc., to be continued.

5. Memorizing:

- (1)"Muscle memory" is partly music memory; dangers of muscle/music memory (out of tune piano), etc..
- (2) Human memory is effectively infinite (bio-physical explanations, etc.), and the more you memorize, the more you can memorize: associative memory, how memory is recalled, memory methods. Memory raises effective intelligence (IQ). This is why good memorizers look like greniuses while bad memorizers can't understand why they can't memorize.
- **6. When closing your eyes** to play piano, you can concentrate on the music for easy parts, but for difficult passages, you may need to look at the keyboard therefore you may have to memorize the piece. An alternative is to mentally picture the keyboard instead of looking at it, as blind pianists do.
- 7. Addendum to sleep (p. 55): this method needs a lot of practice, using different counts, rests, thought patterns, etc., to see what works. Sleep is a habit, so for it to work, you must incorporate this sleep protocol into your daily sleep process; thus you must use it whether you need it or not in order to form the habit, and learning the method takes the same amount of time required to form a habit.

8. Group Theory:

https://medium.com/@notaredpanda/an-invitation-to-group-theory-c81e21ab739a

- **9.** To practice tremolo in LVB Pathetique, use outlining by replacing the tremolo with octaves; do not overpractice tremolo.
- 10. Dangers of over-practice: stress, damage, bad habits; how to avoid.
- 11. Developing performance skills nobody is perfect, but the audience need not know that methods of avoiding and covering mistakes. Must learn to improvise, simplify. Memorize vs sight-read. Mistakes of famous pianists (recordings) not audible unless you can play the piece because
- **12. Simplest definition of Scientific method** = method that works. How scientists invent and discover; self-consistency checks, power of factorial.
- 13. TO = thumb played slightly towards pad side; TU = thumbplayed slightly towards nail side.
- **14.** Advantages of playing with finger pad instead of finger tip (flat finger vs curled position): no fingertip/nail injury, you can play with longer fingernails, more control and more speed (less curl paralysis P. 14), fewer errors because of larger pad area, higher sensitivity, softer pianissimo, etc.