



Final thesis

Aspects of playing and developing skill

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1. Introduction

The central activity of a musician is playing the instrument, developing and utilizing the skill to express oneself freely. Within the central activity of play, there is a sea of areas in which the player functions, numerous processes, tasks and factors, which effect the ability to perform and express. The player can be limited by any one of them and not be aware of what it is, that is keeping him from growing and or expressing. To overcome these blockages one must first be aware of their existence, the inner work of their functioning, presence within the player thru reflection and observation, and means to resolution. In this thesis the central topic is the exploration of all aspects of playing and developing skill, by dividing the central activity of playing into the trinity of body, mind and spirit. This lays the framework for the exploration of the physical, mental and spiritual – biological, psychological and philosophical aspects, all of which are naturally connected. These three main aspects function as one, however to understand the different viewpoints is to clarify the connections, to put focus on each area seperately enables one to put them together, discover where the troubles may lay and attain a more aware approach to playing as a whole.

For each of the three sub-topics the focus is turned both inward and outward. This means that attention is put on internal and external factors and processes that operate or influence the whole aspect.

The body aspect focuses on optimum functioning of the body as a whole and reaching the ability in specific areas and movements to facilitate any idea set forth by the mind, physically possible. Developing playing skill in terms of physical speed, strength, endurance, movement control and coordination. The functioning and influence of basic body functions such as breathing, movement, hydration, nutrition for the whole body and the influence of the outside living environment. The question of how a player can learn to sense what the body is communicating and with this skill discover what is needed and works best, instead of leaving things to chance or ignoring the body.

The mind aspect focuses on the mental processes and approaches to learning and growth, which includes the interaction with other players, teachers and students, and the outside world in general. Therefore, it explores the musician a social being, the psychological views and motivation factors. The question of how a player can develop mental ability, tame the mind and experience different states of being.

The sub-topic on spirit addresses the philosophical aspects of playing and being in general as well as metaphysics of playing. The existential question of playing and it's purpose, the final source of expression and the creative process. How does music arise from the human spirit, the universal source of music and how it is expressed thru a learned language.

2. Body

The body is our tool for life, just like an instrument is a tool for music. We are given one body at our birth as a gift from the universe, to use for a limited amount of time, therefore it is right to learn about it, how to use it, how to take care of it, how to communicate with it and how to trust it. Basic understanding and care for the body enhances our well being and life quality in general, thus creating better conditions for specific tasks, like those of a musician. Simply put, when your body works better, your playing works better and the music shines brighter. An exception to this is when the body is weakened and with it parts of the mind that are blocking expression shut down, allowing greater expression. However, since we are striving for optimum in all areas of functioning, a naturally good working body is desirable, like a magnificent instrument build by a master craftsman, even though the master musician can make the perfect sound with an imperfect instrument.

2.1 Breathing

When we stop to breathe, we stop to exist. When we breathe deeper, we exist on a deeper level. When our breathing is restricted, our experience of ourselves and the world is dampened. Scientifically speaking, deeper breathing improves the functioning of the nervous system by increasing oxygenation, and therefore the whole body, since it is our nervous system that communicates to all parts of the body. Deep breathing improves the quality of the blood, strenghtens the heart, relaxes the body, brings clarity in the mind, releases tensions and underlying stressors which are an obstacle to a player. Most players pay little attention to breathing, and one could reasonably argue that taking time from practice to simply breathe is long term more beneficial for the overall progress. Since there are little restrictions to where we can practice it, there is an opportunity for the practice of deep breathing in almost every part of the day.

The importance of breathing while practicing is something to be aware of, as a player tends to hold the breath when encountering technically difficult tasks. Learning to breathe and relax at the height of a technical challenge and breathe while playing allows the muscles to be more relaxed and only strain when they are needed. This makes the playing more effortless and effective, by giving a type of distance and overview of the body movements and mind processes.

2.2 Nutrition

2.2.1 Water

Two-thirds of the body consists of water, which is therefore our most important nutrient. (Optimum Nutrition Bible, 164). Drink too little and you are dehydrated, body functions sub-optimum. A mild dehydration can lead to headaches and confusion, a more severe seriously affects mental and physical performance, and eventually leads to death. Therefore to be at optimum physical performance, including the brain functions, a well hydrated body is necessary. However, if you drink too much water it can lead to overhydration, taxing the kidneys and can also lead to death. A common problem of dehydration is that the thirst reflex is often mistaken for hunger, this is why it is important to know your body and observe what it positively responds to. A general rule, if the urine is strongly coloured, you are not drinking enough, if it is always clear, you are drinking too much. Drinking around 6-8 glasses of water per day should be enough for everyone, this includes fresh fruit juices, while avoiding alcohol, coffee, sweet drinks and other similar stimulants. Fresh fruit and vegetables also hydrate the body, as well being an essential part of our nutrition. Choosing natural mineral water, pure water, or filtered tap water, whenever possible, is helpful for the body.

2.2.2 Food

What we put in our bodies has a direct effect on us, how we are and how we perform. In other words, if I am the body, I am what I eat. This statement gains more weight when we remember that the body influences the mind and vice versa. Nutritious food enhances every part of our lives and performance, toxic food diminishes our potential. Everything we eat is toxic and nutritious to a degree, the main question is what kind and how much nutrients does it contain and how do we respond to them as individuals.

»You are unique. There are many principles that apply to us all as members of the human race, for example, we all need vitamins; but the actual amount we need for peak performance varies from individual to individual. It depends on the evolutionary dynamics that you have inherited from your parents, together with genetically inherited strengths and weaknesses, and the interaction of your genetics with your environment right through fetal development and early infancy. The complex interaction of these factors ensures that each individual is born biochemically unique, although clearly similar to other individuals.« (Holford, Optimum Nutrition Bible: 23)

As the old proverb goes, one man's food is another man's poison. The responsibility to discover our optimum nutrition is our own journey, our own experiment, not of any other institution, as nobody can know what is good for us better than ourselves as responsible self-aware individuals.

Basic guidelines

(Holford, Optimum Nutrition Bible: 22, 25, 26, 45, 161, 162)

- Eat when you're hungry, not out of habit.
- Don't eat late or before you're fully awake.
- Eat little and often instead, don't gorge.
- Eat mainly a vegan diet, with half your intake of food consisting of fruit, vegetables, seed sprouts, nuts and seeds. If you do eat meat, avoid the intensively reared kind. Choose fish or organic game instead. Eat these foods only with vegetables (for better digestion).
- Eat as raw and unprocessed as possible. Avoid synthetic chemicals.
- Avoid concentrated foods such as sugar and sweeteners. Dilute fruit juices.
- Minimize your intake of dairy foods, refined wheat, and grains.
- Maintain a balance of 65% carbohydrate, 14% protein, 20% fat (avoiding fried, burnt, browned, hydrogenated fat, and excess animal fat), 1% sugar (fruit and vegetables).
- Eat frequently the many foods rich in antioxidants and phytochemicals, such as sweet potatoes, broccoli, watercress, peas, carrots, and berries.
- Eat a multicolored variety of foods, as each natural color contains different health-promoting phytochemicals.
- Eat whole foods, rather than refined or processed foods full of artificial chemicals. Steam food where you can, and fry as little as possible.
- Whenever possible, buy organic food. If this is not possible, peel or throw away outer leaves and wash to reduce pesticide residues. Soaking fruit with a mixture of sodium-bicarbonate also removes pesticides.
- Buy fresh foods when you need them, rather than buying ahead and storing them. The longer you keep them, the more their nutrients are destroyed. (goes with the new saying »the longer the foods expiration date, the shorter yours«)

- Eat fermented foods such as yogurt, cottage cheese and especially those cultured with lactobacillus or bifidobacteria, to promote the bacteria that keep a healthy gut flora.
- Try supplementing your diet with a synergistic collection of vitamins, minerals, antioxidants, phytochemicals and probiotic supplements.
- Be aware of possible allergies and intolerances to gluten or lactose.
- Notice after which meals you feel worse. Look for the common foods, eliminate for two weeks, then see how you feel.
- Listen to your body. It will tell you more than all the experts will.

To discover one's own optimum nutrition it is a good idea to consult a nutritionist, a kind that focuses on analysing individual unique characteristics more so than general guidelines.

Brain food

The brain is the most complex part of the human body, contains billions of neurons connected to each other by synapses. These two elements of the brain were, for a long period, the central focus of research until a recent revolution that put the humble-looking insulation of nerve fibers on the pedestal. This insulation is called »myelin«. Every human movement, thought, or feeling is a precisely timed electric signal traveling through a chain of neurons – a circuit of nerve fibers. »Myelin« is the insulation that wraps these nerve fibers and increases signal strength, speed and accuracy. The more we fire a particular circuit, the more myelin optimizes that circuit, and the stronger, faster, and more fluent our movements and thoughts become. This means that we grow our brain, which is an important and useful point of view, indicating that greatness is not born, it is grown. When we learn we actually change the wiring of the brain, to do so efficiently we should eat food that supports the growth.

The building blocks of myelin are fatty acids. These are not the saturated fats you get in your chips and fries, but the healthy fats found in nuts, seeds and vegetables among others. The reason why breast-fed babies have higher IQs, is because breast milk contains more of these fatty acids, omega-3 in particular. Therefore in order to have a better memory, learn new skills faster and better, one should make sure to be eating plenty of omega-3 rich foods such as fish, walnuts, flax seeds.

Vitamins and minerals are also important for brain functioning, controlled experiments have shown that by simply adding supplements to the diet (above recommended levels) IQ scores of children increased, nearly all cognitive skills of healthy elderly were significantly improved, except long term memory recall, which can be speculatively attributed to the fatty nature of »myelin« and memory.

In short term effect, observing how certain food influences our mental performance shortly after or the day after consumption can help eliminate a common phenomena called »brain fog.« Brain fog may be described as feelings of mental confusion or lack of mental clarity. It can be caused by toxic metals in the environment, too much calcium in the body and inflammations also caused by food. The most common allergic foods are wheat, spelt, soy, soy lecithin and cow's milk dairy products. Anyone with brain fog ought to try eliminating these foods from the diet, as this will often help speed recovery. Gluten-containing foods such as rye, oats, wheat, kamut, spelt and barley also cause reactions in susceptible individuals that may affect the brain.

Avoiding brain drains such as coffee, sugar, cola, cigarettes and other stimulants also improves the memory and mental performance.

Stimulants

When referring to stimulants, we are talking about substances like alcohol, nicotine, all drugs – hallucinogenic to medically prescribed, sugar, caffeine and other addictive and thus destructive substances.

The player relies on an outside source, in this case a stimulant, to induce or sustain the creative process, which makes him dependant and therefore limits his freedom of expression. Dependance on stimulants to induce a desired level of play is also less sustainable because it speeds up the deterioration of the body. These stimulants are toxic and act as anti-nutrients, nutrient robbers that take away what the body needs.

The use of stimulants can be beneficial in order to open a new perspective to the player, one he was not aware of before, but becomes destructive with the need of repeating the experience with the use of the same substance or other stimulant. To sum up with the words of Allan Watts: »If you get the message, hang up the phone.«

2.2.3 Environment

Acknowledging the importance of breathing one gets to the importance of clean air and living in an unpolluted living environment. People and musicians stay in cities mainly because of the material and social needs of their functioning. In this case, it is important to take time and go into nature, walking thru forests or by the beach, hike on mountains or hills, to get in touch with oneself.

Sun is the last and most important nutrient, if that can be said for any. Light is essential for our existence, sufficient exposure to sunlight littelary feeds the body with vitamins, increases the serotonin production, which makes us happier and contributes to our overall well-being. Getting enough sun, of about 15 minutes sunlight to the face(without sunglasses), 3-4 times a week, is desired. The possibility of this varies with seasons and location, another factor in the musicians journey, which is often a compromise due to the centralization of society into cities.

2.3 Movement and technique

2.3.1 General movement

The basic function of the body is to move, to walk and do things. Taking a simple long walk enhances the nervous system, activates the brain and enriches our functioning from top to bottom. A body that is too static calls for a brain that is static and overall deterioration. Many players experience back problems, muscle pains, all of which are related to lack of general movement and over-intense specific movement. Solutions are simple to conceive and harder to carry out, due to the nature of habits and desires that conflict with the body. Simple walks, exercises, pilates and recreation, be it kicking a ball, painting a wall, climbing a hill or a tree, do the job for basic body movement needs.

2.3.2 Posture

Given that we provide the whole body with enough movement and exercise, the aspect between general movement and specific technical movement is posture. A posture can be static, in which case one must strive to find the right position that allows optimum movement of technically specific parts and the least strain to the rest of the body. It can be dynamic, where we are moving the parts that are not necessarily involved in playing.

Some classical piano teachers use the technique of putting the student in an unusual awkward position, to make the unnecessary strain of the body very apparent, while the part that is performing maintains relaxed and as optimum for performance as possible. The awkward pose can ironically make the player perform better as it divides the part that is strained unnecessarily and the part of the body that is involved in performance apart, given a clear view of where to focus. There are more examples of this approach, like playing on one foot or while standing on your toes. Another variation of this method is the opposite to additional tension, where the player is put in such a position where he is less tense all together. For example an upright bass player is held by two people to prevent him from falling, the only effort for him to play is in the use of hands.

Playing is a full body activity, therefore to determine how static or dynamic ones posture should be, is left to the player, but one can be encouraged to be aware of his posture, its advantages and disadvantages, and possible alternatives.

Ideally the posture should be as relaxed as possible while the parts that are essential for playing are stressed when necessary to perform the desired tasks. A balance between tension and relaxation, a paradox of complete effortlessness and maximum strain happening at the same time.

2.3.3 Specific movement - Technique

Instrument specific movement or simply playing technique. This is the set of skills that are at the disposal of the musician to use for play and expression. One view is to look at skill as if it resides only in the brain. In this case, skill is myelin insulation that wraps neural circuits and that grows according to certain signals. This makes sense in theory, but how do we grow skill practically?

To address this topic we are already entering in the domain of the mind, but since growing skill is a biological process, how does one become the architect of his own talent? This process happens at its most effective when we are in an absorbed state of learning, which Daniel Coyle calls »deep practice.«

Deep practice

Deep practice is a state of full attention, alertness, focus, detachment from the outer world and absorption in play and practice. It is when we are in this state that we truly learn and grow exponentially stronger, although it can be painfully slow. Daniel Coyle, in his book *The Talent Code*, describes three rules of deep practice:

1. **Chunk it up** – making the right connections in the brain
 - a. Absorb the whole thing – Observing/listening to the desired skill (song, lick, move,...) as a single coherent entity; absorbing a picture of it and seeing yourself doing it
 - b. Break it into chunks – Break a skill into its components (separate circuits); memorize and attend the pieces individually; link them together in progressively larger groupings (interconnected circuits)
 - c. Slow it down – Attend closely to the details, higher degree of precision in connections; interlocking circuits, deeper understanding of how it works together
2. **Repeat it** – strengthening the connections
 - a. Quality - Attentive repetition means firing and strengthening the right connections and tweaking the circuit by fixing errors. If our mind wanders and we are repeating the same mistakes, we are strengthening a bad circuit, which is why it is better to stop practicing when we can not stay in the deep practice zone any longer, due to exhaustion or distraction.
 - b. Quantity – Repetition is priceless and irreplaceable, there is no substitute for actually doing the playing in order to build skill. The more we fire a circuit, the more myelin grows around it, the deeper, stronger and exponentially faster the skill. Neurons and connections must keep firing; the newer the connection, the sooner it will diminish if unfired. Hence why many musicians do maintenance practice, which too must be quality focused, unless we are to maintain errors. Amount of time spent firing the circuits is essential.
3. **Learn to feel it** – automating the process
 - a. Tuning the senses to detect errors immediately when they come, correct and avoid them
 - b. Trusting the subconscious – Having no doubt that we are able to perform
 - c. Sensing growth by secondary feelings, coming from alertness, mistakes, focus
 - d. Finding the sweet spot – the level of skill where we almost make it but just fall short

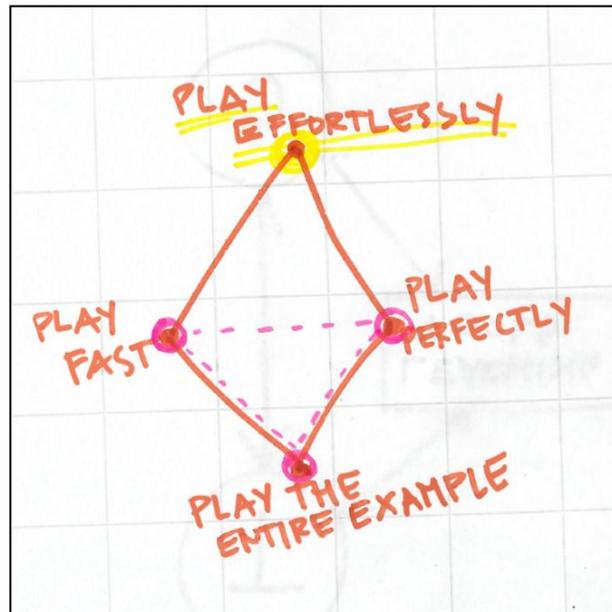
The practice cycle in deep practice consists of picking a target, reaching for it, evaluating the gap between the target and the reach, and returning to step one.

Bitter sweet spot

The bitter sweet spot is a productive, uncomfortable terrain located just beyond our abilities, where our reach exceeds our grasp. This is the spot in which progress happens. We reach out for an idea, the grandeur of our desire, can almost hold it, and feel it slip through our fingers, leaving us with a feeling of »divine dissatisfaction«, all until we can get it and move on. A quality of an advancing player is to always search for those spots, constantly seeking out difficulties, the so-called »slippery slopes.« This is why making mistakes is so valuable, because they reveal those spots. An advancing player is open to making mistakes and wants to find weaknesses, so that there is something to overcome and grow.

The learning diamond

This model of practicing, constructed by Kenny Werner, rests on the assumption that your practice is engaged in the absolute deep absorbed space, and breaks it down into four basic considerations. First, that you play effortlessly. This means that you are physically relaxed, breathing and not straining yourself excessively, mentally it can be viewed as a neutral state of mind. At all time, should you play effortlessly, although paradoxically the other three parts demand effort. Playing fast, playing perfectly and playing the entire example, are interchangeable, if you want to do any two of them, you have to sacrifice one of them, until you have reached mastery.



Picture 1 – The learning diamond

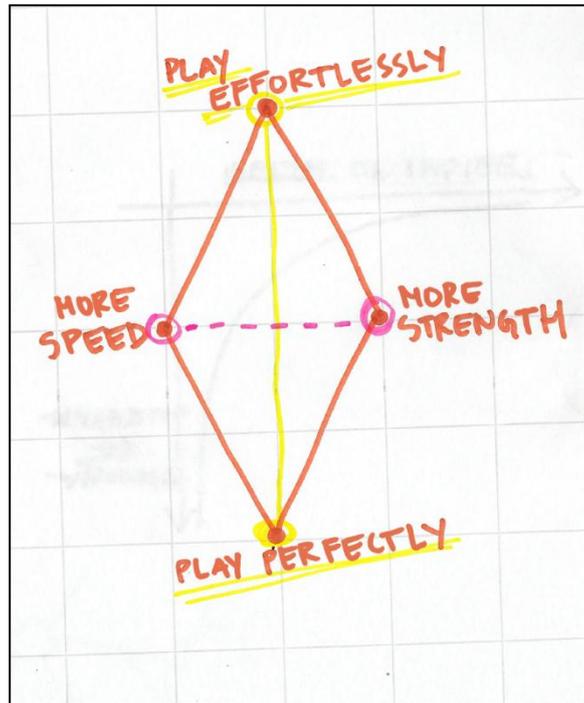
For example, if you are going to play the entire example perfectly, you must sacrifice the tempo. Or, if you are going to play the entire example fast, you will not be able to play it perfect. Which would be beneficial to get an impression of how it would feel like to play it at that speed, but benefits the player much less in building the right connections.

The edge of ability

Another view of skill altogether, is that it resides in the body and not only the brain. Skill is not only muscle memory, skill is the muscles capacity to perform what is demanded, in terms of speed, strength, and general control over the physical motion. One might call it a »sport« aspect of technique, based on the view that you can have excellent running technique, but without strong legs, it's of little use.

Some people have naturally strong or fast fingers, for them it is more about gaining control over them, which has mainly to do with the mind aspect. A non-musician can happen to do a faster piano thrill than a trained pianist. But some have weak, rigid, fingers that need working out, or a player might just want to have a better physical technique. For this purpose I have constructed a model of practicing which pushes the edge of physical ability, without sacrificing the brain connections, in the most effective way.

It is based on the repetition of small chunks, such as thrills, paradiddles, licks, passages and all other chunks that are repeatable in a loop. The idea is to be able to repeat a chunk for as long as necessary without break.



Picture 2 - The edge of ability model

The first part is playing effortlessly, without excessive strain of the body (like tensing the shoulder when working finger movements) and holding of the breath, other excessive movements (jumping feet). A relaxed effortless approach is challenged by the middle part. Applying more speed to playing the chunk in a loop, and applying more strength (strength means physical force, which involves making larger and clearer movements). These two middle parts are interchangeable, meaning we can add more of either one and or the other, in order to get to the edge of our physical ability. The middle part is challenged by the bottom part, which is, like the first, unconditional. Playing perfectly, holds it all together, and to have and maintain the right optimal technique throughout the exercise. Because the chunk is small we can absorb and repeat it easily, with little mental effort, but the player must always play perfectly. When too much speed makes the playing imperfect, reduce speed, make it perfect. When too much strength makes it distorted, reduce strength. Applying more speed and strength in a loop eventually leads to strain and pain, which is the bitter sweet spot of muscle growth, or in the words of bodybuilders »no pain, no gain.« However, one must be careful, as mild to moderate muscle pain leads to muscle growth, excessive pain leads to permanent injuries. Listening to the body, not forcing it excessively by our egotistical needs requires maturity, which is why this approach is not for everyone, especially not for over-enthusiastic teens. Reaching the spot of pain, and letting the muscles rest and recover, are equally important, although some bodybuilders even argue that appropriate rest and nutrition after workout, are actually more important.

To summarize, the edge of ability is the bitter sweet spot of the muscles. Even if a player has great physical strength, speed and agility, there is almost always room for physical development. The question is whether the player needs it and what for. To impress or to express?

Discipline

Kenny Werner presents a common point in having discipline for quality practice in his book »Effortless Mastery«, stating that the length of time you practice must be limited to the length of time you can remain in »the zone«, then you must stop! The player must be willing to put the instrument down, which can and should take more discipline than picking it up. More time is more productive only when the player is attentively building circuits and perfecting skills, with the willingness to make mistakes and to correct them. There is a limit to how much deep practice a human can do in a day and it tends to leave people exhausted even after very short periods of time. It can feel as uncomfortable as taming a wild horse, a metaphor for an uncontrolled mind. Time should be measured as energy, how much was put in, how exhausted is the brain and the muscles. Hours of mindless rambling don't come close to twenty minutes of deep engagement, full focus and controlled struggle. With discipline, struggle - which is a biological necessity, becomes a choice of the player, how much of it to utilize and how to make the best use out of it, for a creative purpose.

2.3.4 Injuries

The most common pattern in injuries is when our mind, our desires ignore the signals and desires of the body. Say you are in the middle of writing a good idea and you are holding pee, afraid you will forget it while you fulfill the bodily need. If this was to happen often, you would most likely be left with a dysfunction. A more common example is when you want to have great technique so badly, that you ignore the constant pain you are getting, calling for a severe injury. The solution is simple, stop practicing and massage the pain, go to the toilet and think about the idea. However, to give up the desire is harder as it requires a peace of mind and trust, that things will be done as they should, even when we stop, change the way of going about it or the direction altogether. Pain is a signal that should never be ignored or repressed, as this leads to further injury, nor should it be completely avoided or feared, as this stops development.

2.4 Summary

Having looked into the surface of the body aspect of playing, we might already be left under the impression, that the body is a difficult machine to operate and maintain. But if we look at the fact that it took all the intelligence of the universe and billions of years to develop it, it is simple. We only need to make it do what it was designed to do. Move, breathe, put good things in it, so that good things can come out. Directing the body with regard to it and for a healthy creative purpose. Our body influences our mind, what we eat, what we breathe, has a direct effect on how we feel and how we think. The mind also influences the body, and in order to prevent the mind from abusing the body, we have to know ourselves and our mind, which leads me to the next chapter that aims to take a deeper look into the aspects of the mind.

3. Mind

There is a slovenian proverb that states: »If the head is crazy, the whole body suffers.« What it suggests, is that regardless of how efficient we are in dealing with our body, if our mind does not function properly, it will limit creative expression and the bodies functionality.

A sound mind consists not only of the development level of certain types of intelligence, such as spatial, linguistic, kinesthetic, rythmic and harmonic, intrapersonal and interpersonal, naturalistic, and logical-mathematical (the most valued in our socioeconomic order, often even reffered to as general intelligence). It also includes having a mental hygiene, a general development and maturity which allows the player to access and utilize all areas of intelligence without blockages, caused by fear or other excited states.

In this chapter, my goal is to explore both, how one develops a greater capacity of intelgence and how he or she can access and utilize their own intelligence without being restrained.

3.1 Mind control

There is a statement that I heard as a teenager enthusiastic about gaining speed, it said »You can't play, faster than you can think.« What it means basically, is that you can only really play what you are able to follow. If you can not follow what you are playing, then it is beyond your control and your movement and improvement is a matter of chance and not conscious effort, due to lack of focus. Naturally, you can not think consciously of everything that is happening, as most things are done subconsciously, but you can consciously steer what is happening subconsciously, and slow it down, bring it to surface, correct it, when necessary. Being too obsessive about following everything that happens (obsessive perfectionist) also slows down the process, which is why a player must also trust the subconscious. As the skills get better, the easier it is to trust it.

Mind control in this sense is about training the subconscious right, learning to trust it, observing and consciously interfeering with it when needed. Manually steering the automatic driving.

There are outside factors that address the subconscious as well, it is programmed daily in our modern world, thru media, advertisment, music, games and all types of mind programming, from open advertisment to subliminal ideological propaganda, which also influences our well-being as well as our ability to express. This is the automatic driving that steers us into shops, makes us want certain things, and percieve the world around us in a certain way. Recognizing and liberating yourself from certain subconscious drives and preconcieved ideas can be beneficial to the player in order to gain more control over his or her mind.

3.2 Mind state

The topic of a mind state revolves around emotional and personal ways of being and functioning, which are typically split into two, the positive and negative, or charged and uncharged (neutral). It can be said therefore that there are three states, the positive, the negative and the neutral. While this topic can lead to various religious and psychological discussions, also relevant to playing, we will try to keep it short and functional for the player.

If we assume, that attention is reward. This means that when a mistake (something that is not intended) happens, by giving it attention, we are only giving it more power and it sinks deeper into our mind and becomes stronger with the negative mind state. Another reason why one should not

get upset when he fails to do a task, is that a negative mind state eats away persistence, which is essential for progress and flow. On the other hand, the player can not ignore the mistake, so the best he or she can do is to only observe it as it happens, acknowledge it, not give it any special attention and work away from it. It is good to note that if one deliberately tries to ignore a mistake, with only the slightest frustration towards it, he is still giving it power and disrupting the playing that is happening in the moment. Being in a positive mind state has different disadvantages, as over-excitement can distort the perception of what is correct or incorrect, intended or unintended. This type of emotional excitement can leave the player with a feeling of accomplishment on realistically vague ground, which is unproductive. With a rewarding feeling, of the end already reached, this state can slow down the progress. A general neutral state is therefore the most optimal, where attention and a positive or negative response are given by the player when they are needed, rather than spiralling into a particular state automatically, by default and out of control. Mistakes happen, positive and negative responses happen, but it is our reaction that determines how and to what extent they influence the process. Therefore a player strives to reach an optimal neutral state in which he can observe and react optimally.

Practically, the neutral state can be practiced through self-restraint methods, forgiveness, meditation, practices that make us »let go« and or resist automatic drives. This can be done as a separate activity, for example when one is sitting with the sole intent of meditation or prayer. It can also be done during everyday experiences, conversations, rehearsals, queue lines, performances, with awareness. In either case a connection with the body is necessary, having the ability to sense stress and neurotic patterns (grinding teeth, jumping leg, shallow breathing, gut feelings), observation of what we are experiencing, the reason for this and a way to respond in order to return to a neutral mind state and a desired charged response. For minor disturbances, observation alone can be enough to make them disappear.

3.2.1 Fear

A player can be in a general negatively charged state, living in fear, being generally closed to receiving and limited in opening oneself, in consciously expressing what is within. Normally such a person would not be involved in a creative process, although in the world of sales and paperwork, there is more than enough exception to this. However, we assume, that the musician is not in a generally fearful state, but experiences fear sometimes, triggered in different situations, but for mainly the same reason. This becomes an obstacle in playing and creativity.

Kenny Werner writes of the phenomena: *»Some of us play as if there were a gun being held to our head, and there usually is – because we are holding it! We assess our self worth with every note, or with every stroke on the canvas; it doesn't matter which art form we are talking about. Enslaved by ego, we are encased in fear. What are the consequences of playing poorly? Nothing really, compared with the consequences of, say, jumping off a cliff. Yet if you ask some classical musicians to improvise, they might behave as if you were pushing them off a cliff. Why is this so? As stated before, many of us have formed an unhealthy linkage between who we are and how we play. We fear being inadequate and that leads to ineffective playing, practicing, and listening. Fear closes all doors to the true self, that brilliant center where the ecstasy lies.«* (Werner, Effortless Mastery: 51)

From this we can draw that the reason of all playing related fears is in us identifying with our playing ability. I am the musician, I am a guitar player, I am the guitar skill. If I am the skill, then if someone's

skill is greater than mine, I am less, which threatens the ego, causes fear based emotions and blocks growth. Examples of fear based playing dysfunctions are:

- Fear-based practicing - Where one fears being left behind and rushes thru the material, is left with poor knowledge, weaker than if he had accepted the possibility of being less skilled and absorbed the material fully. Or when the player is overwhelmed by all that he has to do in order to »catch up« or »become somebody«, which produces a feeling of such anxiety that the player can not even begin to practice and play. This is not being lazy, it's being overwhelmed because of fear of being behind.
- Fear-based teaching – When the teacher is inadequate in a certain skill, but fears to admit it, and makes the student focus on another skill, even though it is of less importance to the student, hence limiting the students growth. Teaching the student to play the ego game of being validated instead of developing skill. Fear based teaching is passed on and creates more fear based teachers and players.
- Fear-based listening – When the player identifies with the skill, he does not want to hear a better player, because it makes him feel bad about himself. This means that the player can not appreciate the full beauty and the details of the others play, because he does not want to hear it, and this tremendously limits growth. Also in playing with people, one can not listen carefully to others if he is preoccupied with himself, because of a fear of not being good enough.
- Fear-based composing – When there is a need to write something brilliant, instead of gratefully accepting whatever comes out. In such a case the fear of writing a bad composition puts the editing before the writing, which is by default blocking the creative process, writing.

When we are the skill, and when the skill is not good enough, we are not good enough. This is where the playing related fears come from and the solution is to detach from this identification and or find validation in different aspect. This does not necessarily mean to say that I am something else, that skill is not important, for the purpose of feeling adequate or escapeing an unpleasant feeling, but to have an inherent sense of validity, integrity, purpose and see skill as an extension of that, a tool with which we express.

As a human being, the player is not as good as his skill, but as good as he is in the general sense, starting with basic human virtues. A player should be kind to himself, first and foremost. If he is not, he can not function optimally, and share his creativity. A player should be honest in his self-evaluation and accept the possibility of being wrong, weather that means that his skill and potential are actually greater or that they are smaller.

Without the need for self-validation, talent and acquired knowledge flow naturally. To be able to detach from identifying with skill is therefore of somewhat great importance, especially if a player is coming from a point of not being good enough. Besides this view of attachment and identification with playing skill, we can go even deeper and observe what happens in the moment of play.

3.2.2 Attachement and detachment

When a player is detached, he or she is only attached to the goal and the outcome of the immediate moment, and not all the things that are a possible consequence of it. This means that the way you

execute a certain phrase is only that, even though the focus is that of a life or death situation, it is only the way that particular thing happens. Every moment of the performance is perceived and evaluated on its own, it does not yet influence how a player feels about the rehearsal/gig, the day, the week, social validation and other expectations and existential troubles of the ego mind. After the process one can and should reflect and evaluate, to improve on the next performance.

The ego is the ultimate tool in learning and the creative process, but if it is in charge, it is the biggest obstacle and threat to it. This is why when a person is »in the zone« or deep practice, they experience a loss of self, which is the ego mind. In this detachment, you do not exist, there is only that moment, for which you are a tool.

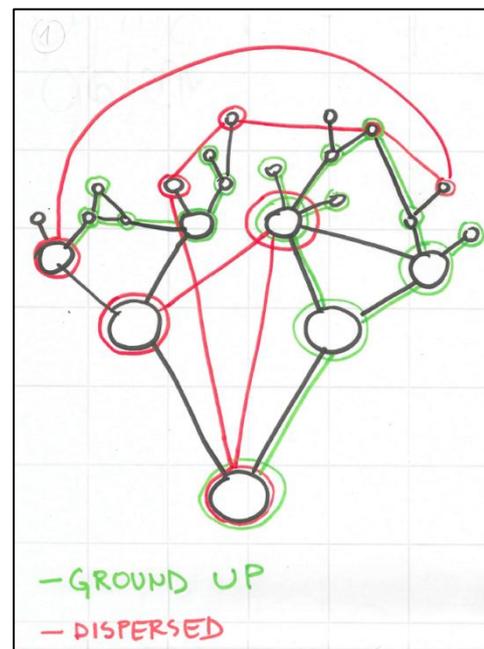
3.3. Approach

An approach is the interlinked pattern of strategies, habits, and methods for the daily process of getting better. In order to better oneself it is important to understand that it is not just what you do, but how you go about doing it. In the body aspect we mentioned that it is not how much time we put in, but how much focused energy, and with a good approach, this energy is utilized in an efficient way.

When one is learning, he is not necessarily aware of an approach he is using, does not feel the need to question it, as when learning is happening effectively, there is generally no need for this anyway. However, I have come to realize, that there are two main approaches in learning, that are both at work at the same time. The problem is, that most players seem to be too much into one approach and others too much into the other, while few manage to navigate successfully inbetween. Being stuck in one approach too much and not being aware of the other, or being unable to break out of the habit of using a certain approach, leads many players into frustration. The aim of this chapter is to present the two general approaches, my views on them, the way they work separately and together, and to give practical advice on their use.

The interaction of the two approaches is that of order and chaos, systematic and unsystematic, limited and free, in and out, of reaching for completion.

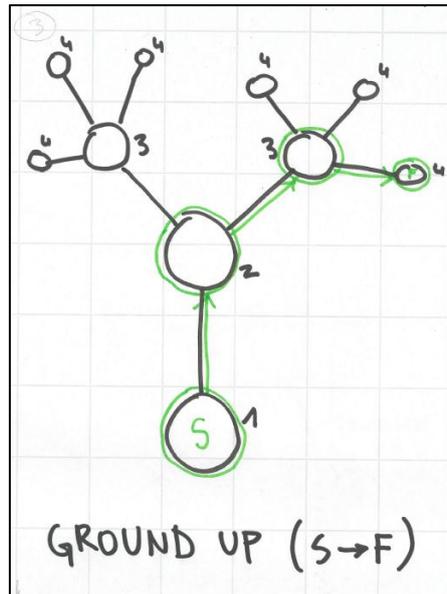
One we will call the ground up approach, and the other, dispersed approach. Ground up approach starts at the most fundamental building block and goes to the next one in order. Dispersed approach starts anywhere and goes anywhere.



Ground up and dispersed approach

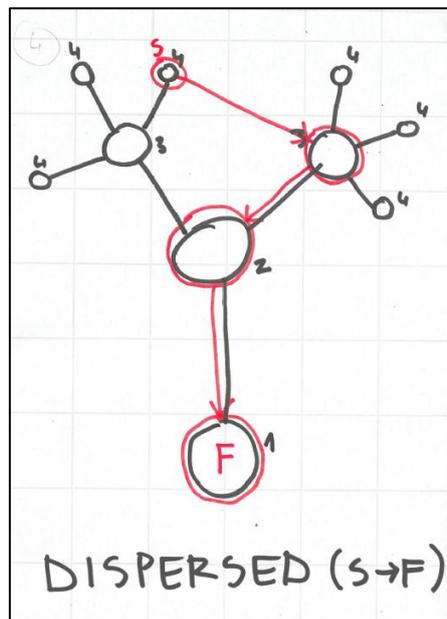
The circles represent pieces of information, they are the building blocks of knowledge. An outlined circle (red, green, blue) means that the building block is realized - learned. The lines in between the circles are the connections by which they are directly connected by their function. For example, in

the bottom circle is a guitarist knows, that in order to play, he knows how to hold a guitar properly, and the top circle is knowledge of how to hold a Cmaj7 chord.



Ground up approach (S – starting point; F – end point)

In the above »ground up« diagram, all the realized links are directly connected, including the building block on level 4, making knowledge overall more functional, but more narrow.

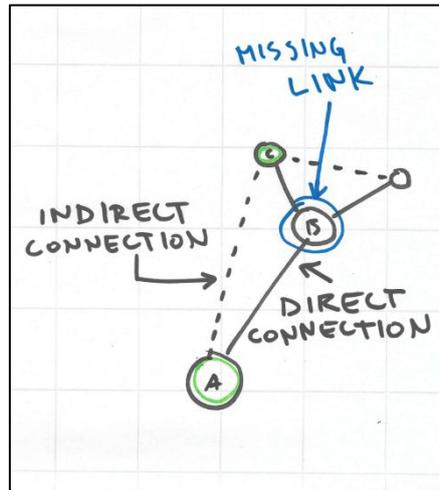


Dispersed approach (S – starting point; F – end point)

All the realized links are not directly connected, because the building block on level 4 is on another branch of level 2, making the knowledge overall wider, but less functional.

Knowledge becomes functional when it is directly connected. A simplified example, a guitarist can already read music, but if he can't hold the guitar and locate the notes on the guitar, that knowledge is not practical for him as a guitarist.

Becoming a complete guitar player means, being able to freely express, without any constraint of unrealized knowledge, thru the instrument. In a more technical view, completion is when all the missing links, connected directly and indirectly, are realized and therefore fully functional.



Indirect connection becoming direct, when the missing building block is realized

When B is no longer a missing link, the indirect connection is realized and becomes direct. Therefore a direct connection is when the two building blocks are connected one after another, or have one or more building blocks inbetween, that are no longer missing links, but acquired knowledge. An indirect connection is when two building blocks are connected thru a building block which is a missing link, and remains to be realized.

All knowledge is connected indirectly. It becomes practical when it is connected directly. For this to happen, the missing links must be realized, with both, a ground up and dispersed approach. Let us look into each approach from a theoretical and practical view.

3.3.1 Ground Up Approach

Starting with a foundation and building each step in relation to the previous. This type of learning requires awareness of how each step relates to the one before, as it is extending from one to another.

Generally a more theoretical and structured approach. Acquireing knowledge for the purpose or a goal of having a complete understanding of the skill, by learning one step at the time, without jumping back and fourth, left and right. Present oriented in the sense that we must have an understanding of how it all connctcs immediately. Ironically, in practice players who predominantly use this approach are more future oriented as far as usefulness is concerned, they are learning it for a future use, a cause that is not now.

A good foundation is easier to build upon, as new knowledge is easier to internalize if it relates to knowledge that is already there. An advantage of this approach is that all acquired knowledge is

already directly connected, therefore enabling the player a freedom of using all the building blocks in expression. Knowledge is more stable, long lasting and generally usefull.

The disadvantage is that the process of learning can become too slow, as progress is only possible when a building block is acquired, therefore when one gets stuck, one can not continue with any other advanced thing. This has a demotivating effect and exhausts energy, which is limited, increasingly.

»I seem to be stuck, I can not *move forward*.« This is a common complaint of players who have too much of a ground up approach. They will not move on to the next step or a few more ahead, because they feel it is wrong, that they are not qualified and worthy of learning something that is way beyond where they currently are. Knowledge in too much of a ground up approach is therefore limited and stuck in progress.

Practicing with the ground up approach is experienced as slowing down, focusing attention. if we hold one note, what is the name of the note, on which string does it lay, what is the texture of the sound, how is it being held, how does it relate to the previous note, how does it relate to the harmony, and so on.

3.3.2 Dispersed Approach

Learning things that are seemengly unrelated, where more basic knowledge of the material being learned (the steps before) are not required.

Generally a more practical unstructured approach. Acquireing knowledge for an immediate need of use, regardless of it's generally usability or function in the overall view of building skill. This type of learning does not require one to be aware of how the new material relates to previous knowledge, as it is jumping from one thing to another.

Focusing on an immediate result and not one in the future, it is temporarily more rewarding and increases motivation, because of the always exciting novelty of the goal. However, it can also be demotivating, because of the lack of skill foundation needed for the new skill.

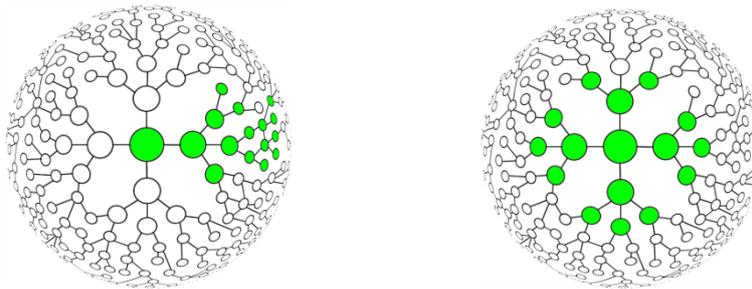
An advantage of this approach is that it allows greater freedom in the immediate process of learning, it sets the mind on where it is to be immediately, therefore enabling one to experience a sense of allready being where one is going, more quickly. This opens the doors to new areas of progress more quickly, and increases motivation, overcoming the difficulty and energy drain of not being able to see and know that which lies beyond the obvious next step or steps.

A disadvantage is that over time, it can lead a player into having great amounts of specific knowledge that is not interconnected, being less generally useful, it limits ones freedom of expression and decreases motivation, summed up in the following sentances: »Everytime I learn something it feels like starting all over again from nothing« or »I know a little bit of this, little bit of that, but nothing *really*.« This is the common complaint of players who have a too dispersed approach of learning. The word »really« reffers to a foundation, a sense of stable knowledge. Knowledge in an over dispersed way of learning is therefore compartmentalized and not interconnected.

Practicing with a dispersed approach means letting attention wander and speeding thru different areas. In playing the guitar for example, it can mean playing the piano. It does not need to relate to guitar playing directly, but it still influences and enhances it.

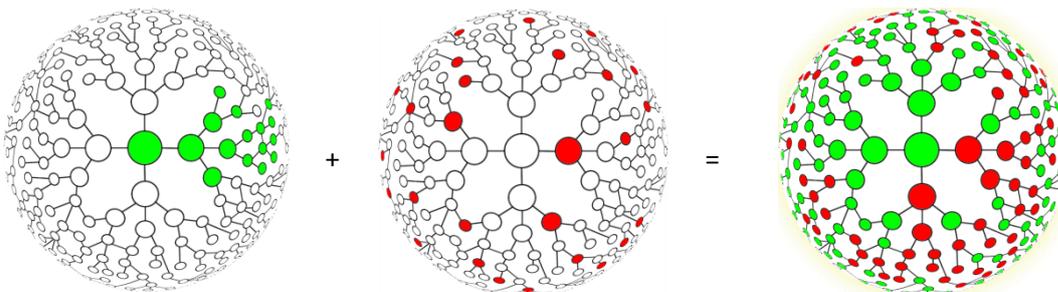
3.3.3 The two approaches together

Learning the basics first, is necessary if one is to make a solid and firm foundation on which to build upon. However, because what we perceive as basic is relative, it is also not necessary to learn what is thought to be basic first. The way we perceive learning as an approach is relative. This means that learning the same thing can be both a ground up approach and a dispersed approach at the same time, depending on how we look at it. For example, if a beginner guitarist, striving to be a complete player, is learning a Cmaj6add9 chord, the approach is dispersed, because he is skipping the basic triads, positions, etc. However, if a beginner guitarist, striving to become a gipsy jazz rythm guitarist, is learning the same chord, it is a ground up approach, since the skill requires a limited amount of specific chords, where Cmaj6add9 is one of the basic building blocks.



The relativity of what is basic is demonstrated in the above spheres. In the first, the basic building block is apparent, as we look at it from a more two dimensional perspective. However, when we see it as a three dimensional object and turn it, we see that when the sphere rotates, the perspective of what is fundamental changes.

If one is to make a conscious decision of what approach to use, the ideal is a constant balance between the two in such a way, that when the cons of one approach outweigh the pros, the other approach begins.



In terms of direction, if we assume that the ground up approach is starting at a point and moving outward, then a dispersed approach has inward movement, although it is more accurate to say that a ground up approach is static in movement, while a dispersed approach is dynamic, going both ways. Practically it is beneficial that the player is aware of whether he is increasing the depth of understanding of the obtained knowledge, or obtaining new knowledge.

The paradoxical nature of the two approaches, can lead one to see that they are basically one, but it is at least equally important to see and understand them separately.

3.3.4 Right brain – left brain

The abstract concept of the two opposite approaches to learning and processing information working as one, has a physical representation in our head, our brain, the right brain and the left brain. As we have come to see in the previous chapter, the line between them can be where we draw it, meaning that they both share certain identical functions, but they also have completely opposite ways of decoding and dealing with reality, functioning together as one.



Left brain – Right brain

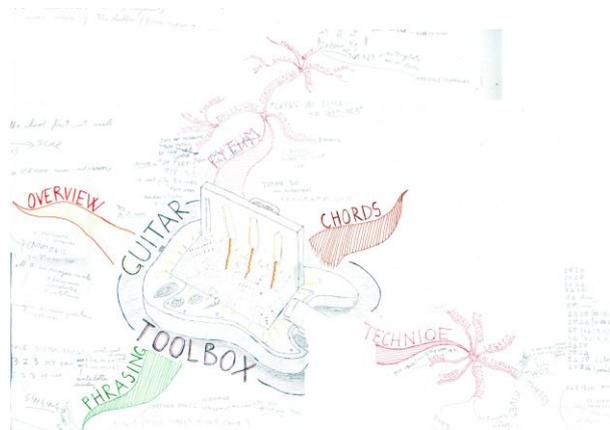
The problem for the player can be that one side is predominant. For example, a more »right brain« player can not organize his ideas due to overwhelming creative flow, or a more »left brain« player cannot express his ideas at all due to over-analysation.

It can be beneficial to understand how each part of the brain works, to be aware for example, that the understanding of this very sentence and its words is the sorting work of the left brain, while decoding the colors of the paper or screen is the perceptive work of the right brain. Discovering our own tendencies, with the help of observation and tests, practicing and overcoming the discomfort of practicing tasks that stimulate the subordinate side, to restore optimum balance needed for free expression. For some, to lay down and daydream is difficult and discomforting as for others to solve an advanced sudoku puzzle, but an advancing player searches for the »slippery slopes« that may lie in developing the subordinate side of the brain, preferably with tasks that are directly connected to playing.

3.3.5 Mind mapping

A useful tool for organizing knowledge are so-called »mind maps.« According to Wikipedia, a *mind map* is a diagram used to visually outline information.

A mind map is often created around a single word or text, placed in the center, to which associated ideas, words and concepts are added. Major categories radiate from a central node, and lesser categories are sub-branches of larger branches. Categories can represent words, ideas, tasks, or other items related to a central key word or idea.



3.4 Mentorship

Mentorship refers to the relation of the teacher and the student. A teacher is the one who governs the process of growth. For this he must have the right intention, skills, means, and a genuine concern for the student. A student is the subject of growth and for this he too, must have the right motivation, facility and a genuine desire to learn from the teacher.

A student agrees that the teacher assumes authority. If a student does not recognize the authority of the teacher, the process of learning will not happen. Authority can not be taken by force, as it ultimately leads to rebellion, and a destructive process. The teacher agrees to govern the teaching process, if he does not, the process can not happen.

The goal of the teacher is to bring out the full potential of the student, to make the student become independent of him in learning, expression and overall functioning. As long as the student needs the teacher for growth, he is not independent, can not move on and can not be free in expression. Therefore it is the duty of a teacher to, in effect, make himself useless, by making the student independent in growth.

Authority is based upon mutual respect that manifests as an agreement between the student and teacher. The student is thirsty of learning and will benefit from his teacher. Therefore he wishes to give authority to the teacher, but if the teacher does not meet or stops meeting the requirements, a student can withdraw from the process. The same goes for the other way around. The teacher is eager to share his knowledge and will benefit from the process, primarily in a non-material way. Therefore he wishes to guide the student, but if the student does not meet or stops meeting the requirements, the teacher can withdraw from the process.

Authority does not exist when we do not agree to it. However the consequences of the disagreement remain just the same, but instead of a creative learning process, the opposite of that takes place. The goal of the governor is the independence of the governed, rendering his own authority unneeded. This takes a high level of maturity of the teacher, as his motivation can not be selfish, both materially (goods to benefit his material being) and non-materially (ex. social validation, excessive emotional attachment, etc.). This means that only a spiritually fully developed person can rightfully govern the process, and use his full mental and or physical development to guide the student.

A practical example of this, if I wish to keep a student, because he provides a steady income, I am not enabling him to become independent, because of my selfishness. This is why the motivation of the teacher must be primarily of non-material nature. If I wish to keep a student, because I enjoy my position of authority and his dependence on me, I am restricting the student's growth, because of my selfishness.

This is why the teacher must therefore be independent of the student both materially and non-materially. However, this unattachment does not mean that he does not care for the student to the utmost, as he wishes for the student the same as he would for himself, had the roles been switched.

This means that the teacher is aware that on the deepest level him and his student are equal, meaning his authority and superiority are of a peripheral artificial nature. By governing the student, he aids him in his growth to achieve his level of understanding and in this, grows himself.

Permission

The student does not need to seek permission, to start performing in a desired way, and should be open to error. However, he must take the teachers guidance, approval and or disapproval into consideration and continue responsibly, to avoid error. This way the student overcomes the disabling need to know the best way before he even starts, the goal before the journey, discovering the right way during the journey, which is what learning is about.

3.4.1 Direct contact of student and teacher

A direct contact of the governer of the process and the govered is essential. The three main qualities of this interaction are:

- Nobody is above the teacher
- Nothing is between the student and the teacher
- Nobody is beneath the student

There is no authority higher than the teacher and he responds to nobody but himself and the student. This means he can take the learning process in any direction he rightfully chooses, or ends the learning process altogether.

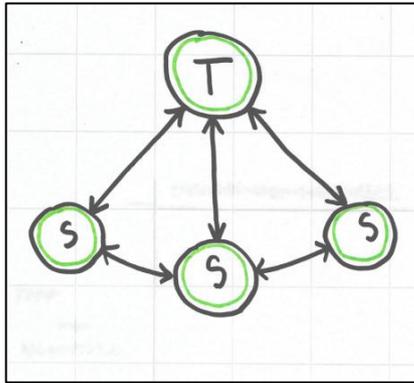
When a teacher wishes to satisfy expectations of someone else, for example stick to the curriculum, he can not bring the best out of the student, as he lacks the flexibility in time and study depth. Therefore the motivation for the teacher can be of genuine nature, care for the student, but if the motivation an authority above him is not of genuine nature (satisfy labour demand, shape the mind in a desired way – not to bring out the full human potential in each one), the result for the student is the same, destructive.

Every student is different, just like every day is different, every situation calls for an immediate unique response. The more one tries to standardize the learning process, an extreme example of this being the current post-industrial education system, the more rigid and disabling for the student it becomes in his overall growth and purpouse.

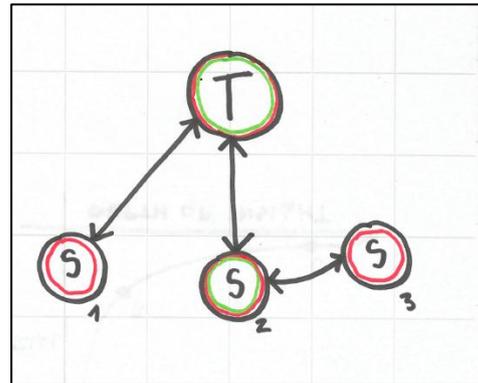
If the student does not want to participate in the learning process, the teacher has the ability to end the relationship, and the student has the freedom to go. Forcing the process to happen is destructive for both the student and the teacher, as they both eventually rebel to one another. Overwhelming evidence of this can be found in the schools around the world, where the socio-political system is not only demanding the process to happen with it's own force, but also shaping it in the way it needs to sustain itself. No authority above the teacher, also means that nobody but the teacher and student themselves, can make the process happen and they can make it in ways they find appropriate. Or if there is an authority above the teacher, than it gives them the complete freedom to do so, without sacrificing their livelyhood.

In practical situations there is a possibility of a situation where a student who is part of the learning group does not participate and disrupts the process. In this case, attention is reward, as with mistakes in playing. When misbehaved students are treated specially, it is deemed as a reward by others, and encourages such behaviour in them. If such a student is collectively ignored, starting with the teacher, he has the opportunity and the choice to get back with the group dynamic and pay attention, the best alternative to wearing himself out, as nobody is giving attention.

Nothing is between the student and the teacher as they engage in the learning process. This means that the student is interacting directly with the teacher, not his assistants, in which case they in effect become the teachers. There is no other students between the teacher and the student, only next to the student, enabling an equal interaction.



Picture 5 – Optimal interaction



Picture 6 – Disconnected students

With more students, there are no favourites. The teacher strives to divide his attention equally, regardless of the level of each student. This encourages the students on a higher level to help the ones at a lower level, enabling the teacher more time to address their level and strengthening their knowledge, by becoming teachers themselves. Which leads to the last point that was already indicated, nobody is below the student. In the eyes of the teacher, no student is worth more time, they are only on different levels. In the eyes of students, no student is worth inherently more, they are only on different levels.

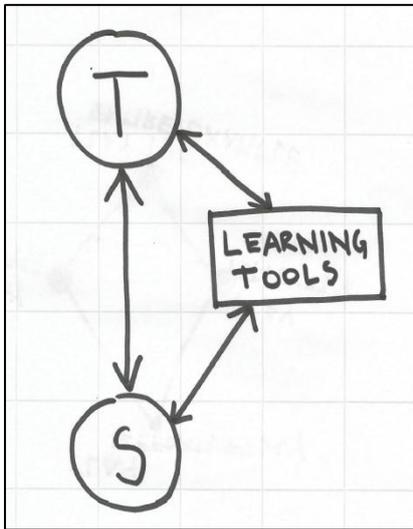
With this approach the teacher is communicating more than the specific material of their level. With his presense, therefore by example, he also teaches his approach of teaching, which demonstrates and communicates a deeper underlying knowledge. In simpler terms, the new skill the students are learning is only one of many things that are being communicated and received.

This is because we learn as full bodymind systems, when the mind is communicating, the body is communicating, and everything that is in them. Isolating only the mind, for example by learning from a computer, disconnects the body, which restricts a persons full developement. Isolating only the body, for example by excessive physical labour, disconnects the mind, which also restricts optimal growth.

A clear example of this is when we get excited about an idea, a mental proccess, the whole body gets excited and wants to move. Vise versa, when the body is excited by movement, the minds activity is stimulated. Naturally, if either the body or the mind is too exhausted, the functioning of the other is also discontinued, hence after hard labour one does not have the energy to think, and after a long lasting set of intense chess games, ones whole body is tired.

An extreme example of how to go about learning and growth in a disconnected way, is the education system, where the vast majority of attention is focused on mind activity and at the same time movement is restricted. The little focus there is on feeling and working with the body, is disconnected from the mind, mainly involving learning motorics of basic sports, which have nothing to do with the previous mental work. Going about the body and the mind seperately means that the

information processed is not necessarily connected and growth of each is restricted. Whereas with learning as a full bodymind system, one is complementing and growing the other directly and immediately for the ultimate purpose. This is why music is great for expression and development in general, because it utilizes both the body and the mind together to consciously express the full life within.



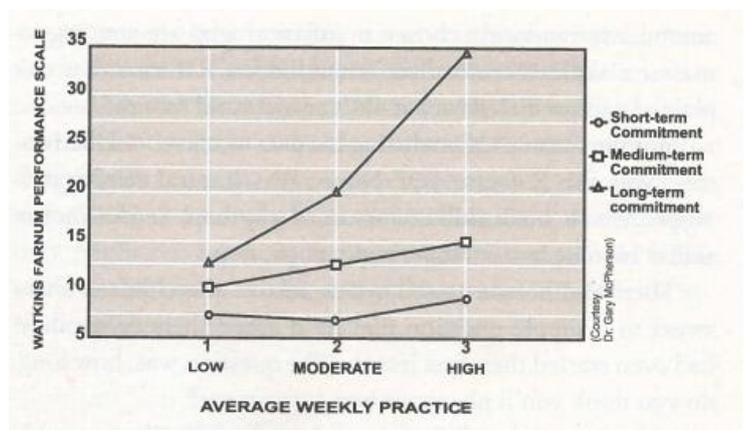
In a full spectrum learning process, growth and learning happen even when the tools are not used. Regardless of how advanced the technology, it can not replace the interaction of the infinite living potential in humans, but only contribute to it. Naturally on the other hand, without the guitar the guitarist can not play his instrument and without the body one can not carry life.

A direct interaction of a student and teacher includes all of their intelligence, that comes thru in movement, bioelectric contact and other communication. Thru every specific piece of information, the student is learning everything the teacher knows, all the time.

Examples of a direct teacher-student relationship are found throughout history and even today, despite the onslaught of socio-economical pressures of conventional education. This relationship of master-apprentice is typical for the universal masters of ancient greece, highest spiritual teachers, the painters of renaissance and later, sculptors, skillful masters of all sorts. Today, we can still find it with the flamenco teachers in Spain, the gipsy jazz guitar players across Europe, master chess players, and many others. Places where a particular skill is nourished and the best masters are present typically called »hotbeds.« These places can be institutionalized, for example a Russian tennis clubs or South Korean women golf schools. They can be free of an institution, like the gipsy guitar players or individual mentorship of any type. While some are in between, where the skill is grown freely in attempt of the students to receive institutional guidance, as is the case in the football streets of Brazil.

3.4.2 Commitment

A study represented in the graph on the right, has demonstrated that students who are more committed, seeing themselves playing the instrument after ten or more years, are more time effective in practice than those with a short-term commitment to playing the instrument. This means that the same time spent practicing, leads to a dramatic difference in progress, because of an idea in the mind, that makes the students more committed.



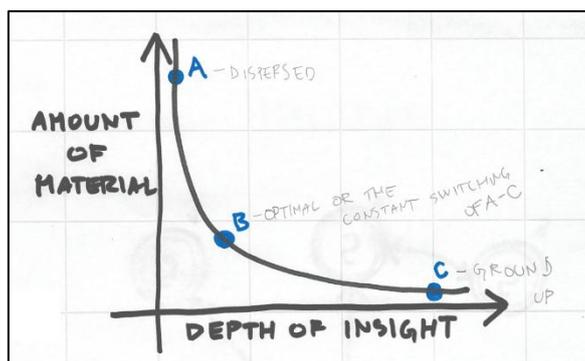
Commitment graph (Coyle, 2009: 104)

This could also be partly ascribed to the possibility that their skill already excels in comparison, which influences how they feel about the future. But a more valid and practical conclusion is that, if we have a long term commitment of what we are practicing now, we will learn it deeper and better by appreciating it more. If we are learning something just to pass an exam or to »get it over with«, the learning will be less effective, even when we spend the same amount of time. This means that the attitude towards the significance of the material and commitment with which we approach practice, plays a role in how effective it will be.

The problem for the player might therefore lie not only in the long term commitment to the instrument, but also in the commitment to the material practiced, if it is something the player does not consider will be useful to him. A conclusion is that a committed player advances faster not because of spending more time or having better facility, but perceiving the material and the learning process as of generally greater value.

3.4.3 Learning material

Resembling the two main approaches to learning, the topic of learning material is an interplay of volume and depth of understanding. The problem of today's school, up to about high education, is the overwhelming amount of material which leaves a superficial short-term understanding of many things and a weak to nonexistent deep long-term understanding of anything. The problem of higher education is that the depth of insight is so deep and specific, that it narrows the learning perspective to a point which closes possibility of expanding knowledge in a more general sense.



Amount of material in relation to the depth of understanding

Ideally one would learn at the point B and or constant conscious switching between A and C.

A good practical example of such a scenario is a hotbed of flamenco guitar players, which have only a few CD's that they study profoundly by ear for years, and with only this material achieve mastery on their instrument. Something many conservatory students, flooded with learning material, fail to achieve, only to become teachers themselves at best and worst.

An advancing player can utilize almost everything as learning material, and is not limited with the need for specific knowledge. On the other hand, he or she strives to profoundly understand playing related knowledge.

3.5 Autodidactics

Nobody can pour real knowledge into us. A teacher can only respond to our desire and guide the students own process of acquiring knowledge from within and without. Nobody can do the learning for you, something many students expect from schools and teachers, which is unrealistic.

We have a natural desire and ability to learn, discover, understand. This self-realizing drive and toolset is biologically inherent to each one, although it may have been sociologically suppressed, for economic and various other reasons. A teacher outside us, a personal mentor is not an absolute necessity, because we can become our own teachers. When one is completely ones own teacher, this is called autodidacticism.

According to Wikipedia, autodidactics or self-education is self-directed learning that is related to but different from informal learning. In a sense, autodidacticism is "learning on your own" or "by yourself", and an autodidact is a self-teacher. Autodidacticism is a contemplative, absorptive procession. Some autodidacts spend a great deal of time reviewing the resources of libraries. One may become an autodidact at nearly any point in one's life. Renaissance polymath Leonardo da Vinci is one of history's best known autodidacts.

The process of learning on your own demands more responsibility and ability for critical thinking as well as more trial and error, which is essential for growth. On the other hand, it is not dependent on or restrained by anyone but the player. Overall it is a slower, harder, but also more free, more direct and rewarding way of learning.

In the following interview with Bill Evans, one of the great piano masters, we will come to see his views on self-teaching.

3.5.1 Bill Evans interview

The interview was done as part of a television program, by Harry Evans. The part of a dialogue between them offers a deep useful insight into the mind of the great player, while addressing the troubles of an »amateur« player, regarding self-teaching.

Harry Evans: *»This type of challenge, that you have to direct yourself for that moment, and you have to call on all your energies and your intellect, and pour it all into this one moment, and you don't have time to even reflect on it. Afterwards, you may reflect on it certainly, but at the moment you are inside of it.*

I remember hearing you play, and we were both playing at the same time when we were boys, where you could become involved and explore the subject, and you kept exploring and exploring, and all I kept hearing was the excitement – wanting the success, preceding the years of exploring and involvement. And again I think this is true for so many people, and regardless of what field, where all they see is the end result, rather than the intrinsic value of that feel and what it can offer them, as they become more and more involved in that particular subject.«

Bill Evans: *»I know exactly what you mean and I see this in a lot of people, that come to me in search of advice, that they tend to approximate the product, rather than attacking it in a realistic true way, at any elementary level, regardless of how elementary, but it must be entirely true, and entirely real, and entirely accurate. They would rather approximate the entire problem, than to take a small part and be real and true about it. And I think this is very important, that you must be satisfied to be very*

clear and very real and very analytical at any level. You can't take the whole thing, and to approximate the whole thing in a vague way, gives one the feeling that they've probably more or less touched the thing, but in this way you just lead yourself towards confusion. And ultimately you will get so confused, that you won't be able to find your way out.

If it is true for any subject is that the person that succeeds in anything, has the realistic viewpoint in the beginning, and knowing that the problem is large and that he has to take it one step at the time, and he has to enjoy the step by step learning procedure.«

[Bill Evans sits at the piano to demonstrate ways to play and work with a standard song. First, he shows the basic framework of the song. Second, he demonstrates how a top piano player would play with it.]

Bill Evans: *»Well they (amateurs) get an approximation of that, and rather than being satisfied with saying, I'll work simply with the framework and honestly and really and play something simple like:«*

[He improvises a simple melody, so simple and beautiful that it stays with the listener]

Bill Evans: *»So rather than this, they'll try to approximate the other thing, but in a vague way.«*

[He demonstrates how an amateur player would approximate the playing of the top player]

Bill Evans: *»They are trying to do the thing in a way that is so general, that they can't possibly build on that. If they build on that, they are building on top of confusion and vagueness, and they can't possibly progress.«*

Harry Evans: *»I have to protect myself here, you're hitting home, this is my worst fault, it's over-playing. But on the other hand, to thousands of musicians such as myself, we have to over-play, I think, because we don't have time to get to the keyboard to sustain even the rudimentary thing.«*

Bill Evans: *»The point is, what are you satisfied with? In other words, it's better to do something simple that is real, it can still be satisfactory, but it's also something you can build on, because you know what you're doing.«*

[Plays another simple example]

Bill Evans: *»That's simple enough, but it's all in the absolute framework of what you're doing. Whereas if you try to approximate something that is very advanced, and don't know what you're doing, then you can't advance and build on it, that's the only point I'm making.«*

Harry Evans: *»But again, I don't think you can just eliminate it, because we find a certain excitement about this. It's a certain kind of enjoyment and I wouldn't stop playing ...«*

Bill Evans: *»Yes, you could be too cautious. You could be cautious to the point where you never discover anything, I think you have to have a certain adventurous spirit. But let's say over a long period of time, you have to be aware of what is really accurate and what is not.«*

Harry Evans: *»Right.«*

Bill Evans: *»And when you're adventurous, you have to know when you succeed and when you don't succeed.«*

This interview shows a masters view, that appreciating the journey of developing skill and enjoying all it's difficulties, is just as important as the end result. We could say that he is emphasising the left-brain analytical element in developing skill, a more »ground up« approach, where one is attacking the problems at elementary levels, building on top of solid foundation. His brother Harry however, as many other amateur players, has too much of a »dispersed« approach, approximating and jumping from basic to the most advanced levels, without having established the connections between them with strict exploration. They come to the conclusion that this »dispersed« approach has it's benefits as well, to discover new things, but that a ground up approach is needed to have solid foundation to build upon. Whichever approach the player is using, he or she must be able to determine what is accurate and what not.

When one is able to determine whether the play is accurate or not, and how to go about resolving and growing in an optimal way, he no longer needs a mentor and is competent in being fully autodidactic. However, an evolving player will test the validity of his autodidacticism and be open to taking the role of the student.

3.6 Technology

Technology is at optimal use when it extends the players inherent human functioning, rather than replacing it. For example, a painter uses the brush as an extension of his body in order to develop and utilize his intact skill for expression. On the other hand, when a composer uses computer software to hear the music that he is writing, he is replacing his skill to hear the music. The technology of pen and paper, that were used to facilitate the composers skill and expression, become the technology that gradually replaces the composers hearing, eventually rendering his whole skill useless, as composing is done entirely by a computer program. We can further test the validity of this point by looking at more general areas of human functioning, such as communication. Initially the telephone would enable sound communication on large distances, leaving direct human communication intact, hence serving as an extension of functioning. Nowadays, devices enable image and sound communication, replacing direct human communication to the point where humans are communicating to their devices more than they are to each other. The technology has therefore replaced direct and full human communication, with indirect and limited, in a natural sense, leading to a decrease in social and motoric skill.

Practically, it is important that the player is developing an overview of the extent to which he is dependent on technology, and know if it is extending or replacing his functioning. If the goal of the musician is freedom of expression, then the more he is dependent on technology, the more expression is restricted. It is not rare that a musician turns to painting (Django Reinhardt, Adrian Bellew, Miles Davis), as if they had reached a limit in expression on their instrument, or they are striving to become more independent in artistic expression, by changing the technology - the medium.

For a guitarist, the guitar is the tool, for a human, the bodymind is the tool. If as humans, we are more than the physical bodymind, then physically we are the tool for the expression of that. This opens the door to the aspect of spirit, the non-physical source of physical expression.

4. Spirit

To think about and to write about a thing, that is not even a thing, seems to be fairly useless, since an understanding of a no-thing that can not be thought of with words and images, can only come from the experience. Nevertheless, if a player is not aware of a potential and the infinite creative sea that lies within it, then pointing towards a direction of it's discovery is of some use.

When we play, when our body and our mind are at it's optimum, perfectly synchronized to express whatever lies within and whatever is called for from without, we enter a state of mind which can be seen as beyond ourselves. We experience a loss of the ego self and become one with what is beyond, what is truly within. Some players refer to this state as being »in the zone«, but this can also mean just playing very well, which is not the same kind of being. As my friend Peter Somos, a drummer, has said: »Music is great, because you do not exist.« At the same time, since your body and mind are fully connected and open, you can not hide, an obstacle for those attached to the ego self, as Berthil Busstra points out: »Music is too honest.« However, when this attachment and the fears that come with it are overcome, musicians are able to connect to and express a universality that makes music a necessity in the first place.

One might say that this spirit, which is attained and channeled, is simply coming from the mind, but on the other hand, could it also be the other way around? Does the spirit, what some thinkers call consciousness, arise from the mind, or does it enter the mind and the mind becomes a tool of it? What does the body arise from, scientifically speaking, what is the most fundamental part of matter? Some scientists believe that it is strings and or vibrations. If the spirit does arise from the mind, what arises from the spirit? These questions can only be truly answered by direct experience of such thoughts, and nobody can give us the answers, answer it for us, as our own work can not be done by anyone but ourselves. The pointlessness of such attempts is best portrayed by the words of Jiddu Krishnamurti: »It is like reading a menu at the window, you have to go into the restaurant and eat food. But merely standing outside and reading the menu won't satisfy your hunger.«

Another slovenian proverb goes: »Healthy spirit in a healthy body.« The term »spirit« in this case might again be used to refer to a »mind state«, but what it implies is that one should either maintain a healthy body to facilitate a healthy spirit, and or that a healthy spirit develops and maintains a healthy body.

We have approached the trinity of the body, mind and spirit from the bottom up, assuming that when the body is functioning optimally, the mind is functioning optimally, the spirit will also be able to express itself optimally. Although this view is logical and gives the previous chapters meaning and practicality, it could be seen as only one side of the coin, if we look at it the other way around. The following hypothesis arises, if we are able to allow the spirit to express itself, open to the sea of creativity within, without fear, then the body and mind could also come into optimal functioning, this way overcoming the blockages and dysfunctions in a more direct and effective, perhaps more uncomfortable way, depending on how attached to the ego one is, how out of order he or she was, with the expression of the spirit so far.

If from spirit, comes matter, the body, if from the body comes the mind, if from the mind comes the spirit, then it does not matter where we begin, as they are all intertwined and share importance. What matters is the direction, towards truth and free expression.

5. Summary

Within this thesis we have scratched the surface of the aspects of the body and the mind, and already gates were open to a number of practical areas of growth and learning. Each area can be further explored, keeping in mind that they are all connected, and that whatever it is we do within each one, is connected to all others. In exploring the spirit, not much more can be done by words, except to raise questions and point towards possible directions, as the mission of a player is not to merely contemplate playing, but first and foremost, to play, express and create.

Thru our instruments we learn life, and from life we draw inspiration for our instruments.

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