# Freeing The Creative Mind

An exploration of thought patterns and their effect on musical performance

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## **Summary**

This research is concerned with the psychological aspect of creativity. After a few years of a professional career in music, I began to notice that the more 'work' I had, the less joy I would feel while performing. However, when I was an amateur all I had was enthusiasm, deep interest and total engagement.

Etymologically, the word "amateur" has its roots in the Latin word "amare", which means to love. So what is it that changed over the years, and how did my love of music-making become so elusive and difficult to find. There was no question that I had lost inspiration and motivation and that I needed to do something about it. After a great deal of psychological turmoil, I realized one night that all this was in my head. My own mental activity was the factor that determined whether I would enjoy making music, or feel frustrated about it. Since then, most of my effort has gone into observing this activity and studying the nature of creativity in relation to it from several fields of study. What I have found is a number of books, journals and techniques that approach this subject from the psychological, physiological and metaphysical sides. Some of the books offer solutions which I've tried and tested, and I've reached my own conviction as to whether these are useful or not.

After 2 years of research, I am further down this path that has lead me to all sorts of discoveries about myself as a musician, an artist, and a human being. I now understand a lot more about what gives me joy in playing music, and what may deprive me of that joy.

## **Preface**

Dedicated to the memory of my late brother, Shady F. Aboul Hosn and one of my closest friends Dr. Mike J. Helal. These two were beautiful souls that left much earlier than I would have liked.

I would like to thank my uncle, Dr. Jamal Aboul Hosn and his wife Intisar Azzam, for being the main sources of musical inspiration and knowledge in my family while growing up. My research coaches: Dr. Peter Mak, Karolien Dons, and Michael Moore for their continuous support and for helping me stay on course. Sarah Ferholt, my Alexander Technique teacher. Jan Voogd, my bass teacher during my stay in Holland. Winfred Buma, my study mentor and Mandy Holstege, coordinator of the Master's program. An extended show of gratitude for my Groningen and New York made friendships.

Last but not least, my parents who've supported me and all my decisions for the past 29 years.

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*"There is something antic about creating, although the enterprise be serious. And there is a matching antic spirit that goes with writing about it, for if ever there was a silent process, it is the creative one. Antic and serious and silent. Yet there is good reason to inquire about creativity, a reason beyond practicality, for practicality is not a reason but a justification after the fact. The reason is the ancient search of the humanist for the excellence of man: the next creative act may bring man to a new dignity."* **– Jerome Bruner 'the conditions of creativity'**

# I. Introduction

The purpose of this research is inclusive within its title. The statement "Freeing the Creative Mind" suggests that creativity is the original and normal state of mind which, over time, is inhibited. For me, the causes of this inhibition were due to external and internal factors which I began to be aware of a couple of years before I left my career in Lebanon to join the Jazz Masters program in Groningen.

After I had completed my Bachelor's in Communication Arts in 2008, I moved out of my town in the mountains into the city and poured all my attention into studying and practicing the bass. I took Classical and Jazz lessons at the Lebanese National Higher Conservatory and practiced an average of 8 hours a day for 3 years; I felt I needed to compensate for not having any kind of musical training before this time.

Soon after I began to receive a lot of calls for work. I was playing an average of 6 nights a week, making good money and learning from much more experienced musicians. I was fortunate in many ways; I was "a big fish in a small pond". There were other bass players, none of which played double bass professionally or had sufficient knowledge or interest in Jazz, so I ended up getting all the good gigs. Now that I look back at it, it was as if the Beirut music scene was a puzzle with a missing piece, and little by little I had to shape myself in a way that fit that place.

I learned a lot during that time. I played Blues, Jazz, Cuban, Brazilian, Arabic Folk and Pop gigs. I also got to record on several albums, which was all adding to my experience at such an early stage in my career.

But after a while, I began to feel uncomfortable. I began to experience a lot of displeasure while performing. I couldn't enjoy playing the same music with the same people so often. I disliked being a sideman who could play so many different style, "a jack of all trades, and master of none". I felt an incessant need to find myself artistically and to be able to express that. But I was too afraid.

I was inhibited by so many unconscious fearful thoughts. What if I sound stupid? What if they laugh at me? What if I follow my own path and lose all my gigs? Will I still be able to afford the luxury of living alone, owning a car, buying whatever I wanted? So I stayed in the same environment, the same situation, with the same inner conflict. It was a huge burden, I needed to create but I wouldn't let myself.

I held on, although I was unhappy. Until a certain point, at the end of 2013, I felt near the edge, close to a breakdown. Frustration after frustration, I no longer enjoyed playing a note with anyone. I knew it was time to do something, but I didn't know what. So I decided to stop. I started saying no to most offers; I broke off my relations with my 'mentor' who was getting me a

lot of work but who was also part of the reason why I felt oppressed. I stopped going to the conservatory, practiced a lot less and had more time for myself.

Here, a new problem presented itself. What do I do with all this free time? Before it was all filled with rehearsals, gigs/concerts, studio dates… Now, I had the freedom to choose what I wanted to do. And how difficult it was for me to deal with this freedom.

Eventually, I began looking for other interests. Physical activities became an important part of my life, I started going to the gym and playing basketball. It was a great way for me to discover that I was living in a body, not just a mind. I rekindled the passion for learning new skills through Sports. I practiced basketball for hours every day, not to be a professional, but just out of pure joy of learning and developing in a new area. There I was an *amateur*, once more.

This phase of my life reminded of my beginning years, long before I became a professional. Those days when I would return home from school with one thing in mind: I can't wait to get my hands on my guitar and play! I was so eager to play. I had no idea how to do this or that, what this scale is called and where that chord fits. I simply was creating and re-creating sounds. The same way I was practicing basketball, I didn't have a coach and I didn't really know too much about technique, but just enough knowledge to develop the fundamental skills.

After almost 8 months of this new life, I decided it was time to leave Lebanon and join a program somewhere in Europe. I wanted to be surrounded by other musicians who were forming themselves because I hoped such an environment would stimulate me to find myself. Subsequently, I found the Jazz Masters program in Prince Claus Conservatory, Holland, and I made my research topic about the experience of being a musician who feels imprisoned, his creative self locked in a box.

*"When you start on a long journey, trees are trees, water is water, and mountains are mountains. After you have gone some distance, trees are no longer trees, water no longer water, and mountains no longer mountains. But after you have travelled a great distance, trees are once again trees, water is once again water, and mountains are once again mountains." –* **Zen Proverb**

**The Bigger Picture**

In the opening line of "On the Social Contract", Jean-Jacques Rousseau states: *Man is born free, and everywhere he is in chains*. This holds true in the world of creative arts. In a talk given by Sir Ken Robinson, he makes the point that children are born creative and are gradually educated out of their natural creative state through fear of making mistakes. He links this to the fact that public education systems were not designed until the 19th century and they all came to meet the demands of industrialism. It follows that importance was placed on subjects that were most useful for work. Therefore arts, music, dance and theater were not really encouraged.

Before my musical education, I was far more open to creative tendencies, simply because I didn't know much about what was wrong and what was right. I have many recordings of myself playing and composing in a way that later became almost taboo for me. However, it is important to note that even though I was thinking more creatively, I lacked many necessary tools that are meant to help me with expressing myself musically, so my purpose is not to dismiss with musical education altogether.

But the problem is not only in education. Society imposes norms, ethics and laws that force people to behave in certain ways. The mere concepts of rewards and punishments can make people very aware of their behavior and steer them in pursuit of goals and desires, and away from fear of punishment. That is what I understood from Rousseau's opening lines, and the artist being a member of society falls inevitably within these confines.

Here I find it necessary to refer to Ted Gioia's explanation of *the primitivist myth*. He refers to a group of European thinkers and critics in the early 1900's who thought the value of Jazz was in the absence of complicated artistic and musical knowledge. To them it was primitive man's way of expressing himself. The primitivists saw the European "self-conscious, overly refined" approach to art was a hindrance to real creativity. In other words, they believed creative acts (Jazz especially) are raw, instinctive acts untarnished by sophisticated intellectual activity. Gioia proceeds to dismiss this view. He clarifies that, on the contrary, there is a great amount of knowledge and intellect that goes into improvising, and it is false to label Jazz as a strictly primitive means of expression. (Gioia, 1988)

But, for me, there is some truth in the primitivist view. Hugues Panassie, one of the founding fathers of Jazz studies, shared this view. He wrote:

*"Primitive man generally has greater talent than civilized man. An excess of culture atrophies inspiration, and men crammed with culture tend too much to play tricks, to replace inspiration by lush technique under which one finds music stripped of real vitality"*

I agree with Gioia dismissing the labeling of Jazz as a primitive art, meaning that one simply needs raw inspiration with no careful, artistic and reflective planning to perform this music. Yet, at the same time what I can take from the primitivists' view is that creativity and inspiration are

abundant where complex society with all its burden of knowledge, social norms and expectations is not looming. Another notion I share is that creativity is an unconscious, intuitive process that may be stifled by excessive intellectual activity.

I remember when I was still exploring music all by myself without belonging to any educational institution or musical society; I would come with all sorts for composing, arranging and improvising. I could play with deep involvement for hours on end. Over the years, I gained a lot of knowledge, and that's when I started to feel more and more confined. I am not trying to say that knowledge is the culprit, or at least it needn't be. What I am saying is that to favor the intellect (rational) entirely over intuition (irrational) is where things begin to fall out of balance.

**Reprogramming the mind**

When I realized that the way I thought about music and life was affecting the way I felt about playing, it only made sense that I needed to carefully change the way I think. First by understanding why the existing way was causing problems, then by finding an alternate mode of thinking which will bring about the change needed to free me from the old patterns.

In their book "Psychology for Musicians" Lehmann, Sloboda, and Woody refer to this process as *Cognitive restructuring:* "It is a treatment strategy that targets a person's thought processes. Musicians learn to identify thinking that is unreasonable and counterproductive, replacing it with thoughts that are realistic and more task-focused". *Cognitive restructuring* has been the main tool I've resorted to for treatment of the problems mentioned.

During my first year of my research, I began discussing this broad topic with my colleagues and teachers which lead me to related literature that approaches the subject from various angles. And upon further investigation I found that there is a staggering amount of material that I would like to read, but given the time constraints I had to be very selective.

From the information I gathered, and because the purpose of this search is to attain a certain degree of freedom in creative improvisation and composition, I was able to divide my finding under four major themes: Creativity, Improvisation, Peak Experience, and Fear. All the choices of literature which I have made dealt directly with one or more of these themes. The various books, videos, journals and articles often offer techniques and advices to enhance creativity and deal with fear. I tested most of these approaches and I kept the ones that I felt worked for me, discarding the rest. I will say a word about these techniques in each related section. One special technique that dealt with body-mind connection is the Alexander technique which proved to have great effectiveness on me; I will present my experience of it in a special section.

Now that I've presented the problem and the main approaches I've taken to treat it, I will first begin by sharing my findings about the nature of Creativity.

## II. The Creative Mind

There are a number of theories concerning creativity and how it works. But after examining some of them, I found two which I've felt are most connected with the arts; The Wallas Model, and the more the recent Honing Theory.

**i. The Wallas Model of Creativity:**

Ellis Paul Torrance, American Psychologist and creator of the Torrance Test of Creativity, described creativity as "a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies: testing and retesting these hypotheses and possibly modifying and retesting them; and finally communicating the results."

Perhaps the first model of Creativity and one that stills stands is the *Wallas model of Creativity* published in 1926 by Graham Wallas in his book "The Art of Thought". This model lays out the process of creative thinking in 5 steps:

1. *Preparation:* The individual focuses his/her attention on a problem in an effort to develop a multi-dimensional understanding.

2. *Incubation:* The problem is internalized in the unconscious, developing and interacting with other unconscious content.

3. *Intimation:* The individual begins to feel that a solution to the problem is imminent.

4. *Illumination/Insight:* The *"Eureka!"* moment where the creative solution moves from the unconscious mind into consciousness and can be verbalized.

5. *Verification:* The application stage where the creative idea is tested and developed as a solution.

I experienced this kind of process whenever we were handed an assignment in composition class. Let's take the example when I had one week to write a lullaby (*The problem*). I went out of class and began to imagine what I would sing for a child to go to sleep. All sorts of images came to my mind, the clearest one that I can still remember was when I was 13, my new born baby sister's cradle had a music box attached and I remember it played Brahm's famous lullaby (*preparation*).

In the next three days, I was busy doing other assignments and preparing for gigs but the idea of writing lullaby was always in the back of mind (*incubation*). One morning, I felt that I have enough ideas (I knew it would be in ¾, in a major key and will be played on a Celesta, since it's

close the sound of music box) so I could sit at the piano and let my fingers come up with something (*intimation*).

 After playing through ideas and possibilities for about 40 minutes, I began to hear the form of the whole song, and the development of the melody until finally almost out of nowhere, I could play the whole thing on the keyboard (*illumination*). After that, I wrote it down then played it over the next couple of days, adjusted a few details and added another section before finally handing it in (*verification*).

## ii. Honing Theory of Creativity:

A more recent theory developed by Liane Gabora,  a professor of psychology at the University of British Columbia, posits that creativity is a result of an individual's "Self organizing/mending World-View" which is the way a person models and experiences reality. A lot of how a person does this is based on sociological factors, like inherited ideas from parents, school, television, etc. There are people who stick with what they have been told and model their world-view based on that, and others who are not satisfied with knowledge handed down them and proceed to restructure their thoughts to make sense of the world and the events in it. Also, one mode of thought present in any particular area of the world-view can then be relevant in another area (e.g.: A musician can compose or perform music based on how he/she believes the world was created, i.e. in extreme order, disorder, spiritual connotations or pure mathematical ones).

According to honing theory, when an individual is faced with a problem, the way they approach it is not strictly an interaction between the individual and the problem, but an interaction that includes also the world-view. The problem, the individual and the world-view are all changed during and after the completion of the creative task.

Honing theory states that the creative process has the function of resolving cognitive dissonances between the individual's world-view and the problem. Instead of brushing the problem aside, or reacting violently against it, a creative reaction would be to find a way to integrate it in a meaningful and harmonious way into the world-view. This is known the self-mending attribute.

"The Potentiality State" is another notion of Honing theory that suggests that creative thought does not move randomly through the unconscious to make associations but rather makes these associations based on overlaps that occur between neurons responsible for encoding memory. In this potentiality state, ideas are "half-baked" because the associations have not yet been made to complete the task. In the Wallas Model, this would be the *incubation* stage.

Creativity was considered to be fostered by a nurturing environment and supportive environment for the individual, but other research suggested that childhood adversity is a very powerful

stimulant of Honing, as it presents the individual with a problem, an idea that conflicts with the world view, and the individual will respond with creative mending.

These are the two main theories of creativity that I related to. Now that I have an overview of how the mind approaches creative tasks, I will address the factors that inhibit the creative process and those that help it flourish.

### iii. Fostering a Creative Mindset:

Many of the works I did for composition class I consider to be creative, earlier however I gave the example of the lullaby because it ended in being one my favorite compositions. But before deciding to move to the Netherlands to study music, I was doing a lot of playing in Beirut but very little composing if any. Every once in a while I would attempt something, a composition or an arrangement but I never could muster the courage to share it with my fellow musicians, let alone perform it. I was led to believe by some of my music teachers and colleagues that composing music is a very sophisticated process that requires years of skill refinement before one could even attempt to write. And so this handicapped me from taking initiative. I will further discuss what I believe contributes to the success of creative acts and what can hinder them.

*Limitation:* I believe this to be the first requirement for creative thinking. If creativity is "thinking outside the box" then we need a box to begin with. Michael Moore, my composition teacher, always had this element in his assignments. One example I can give of clear limitations in assignments was one where I had to compose a piece for Tuba, Trombone, French horn and Trumpet. The Tuba had to descend down a whole-tone scale in any desired rhythm while the other voices had to form triads. This was my "box" and from there I needed to come up with tricks with the tools that I had. George Braque put it eloquently in this quote "it is the limitation of means that determines style, gives rise to new forms and makes creativity possible".

*Allowing Incubation:* Understanding *incubation* helped me in learning to trust the unconscious process. Often actively trying to solve the problem would get me fixated on certain solutions that fail to satisfy me. Sometimes it can be scary not to be in control of everything, especially when I have deadlines, but allowing the process of incubation to happen is necessary. It is also important to be occupied with other activities during incubation, preferably non-musical activities such as sports, socializing, reading... etc.

*Allowing an idea to form on its own terms:* For this to happen, I needed to relinquish the desire to be in control. Whenever I'm making music, I am trying to let the music do what it wants through me. This means trusting and allowing my unconscious mind to pour its content into my consciousness. Bruner (1962) calls this "The freedom to be dominated by the object: to be dominated by an object of one's own creation, is to be free of the defenses that keep us hidden from ourselves". Acknowledging the autonomy of unconscious activity requires less effort than consciously considering all creative possibilities and strangely produced more results for me. It gives way for previously unthought-of associations to find their way out.

*Personalization:* Had I not personalized the way I thought about the lullaby, meaning that if I hadn't thought of what I would sing to my future child or didn't visualize my new born sister in her cradle listening to the music box, I wouldn't have been able to do the work from my heart. There is a line in Bayles/Orland's book *Art & Fear* (1993) that resonates with this notion: "The only work really worth doing – the only work you can do convincingly – is the work that focuses on the things you care about. To not focus on those issues is to deny the constants in your life"

*Perfectionism:* The following definition is from the book "Psychology for musicians":

"Perfectionism is defined by unrealistically high expectations, especially of oneself. It is often manifested as inordinate concern about minor mistakes and inconsistencies and a tendency to notice what is wrong instead of what is right." (Lehman, Sloboda, Woody, 2007).

Whenever I wanted to compose or improvise a piece of music, I would often fall into the trap of wanting to do it perfectly and to sound original. This would become more of an obsession and eventually would prevent me from even beginning the process, unless I was on stage and had no other choice.

There is an interesting anecdote about a ceramics class that was divided into two groups, one that was to be assessed based on *quantity* and the other group based on *quality.* The grading of the *quantity* group would be based on how many pots they produced, the more the pots, the higher the grade. The *quality* group was asked to make only one pot, but a perfect one, and they would receive the highest grade if they did it.

When it was time to grade, the results were intriguing. The *quantity* group had produced the highest quality work, because they were busy making pots and learning with each pot, while the *quality* group was too caught up trying to theorize and conceive a perfect pot that they failed. "If you think good work is somehow synonymous with perfect work, you are headed for big trouble. Art is human. Error is human; *ergo,* art is error."

There is an emphasis in the book "Art and Fear" that imperfection is the common factor between all great works of art, instead of the common misconception between artists that doing great art means doing things flawlessly.

The notions of perfectionism and originality place far too much importance on quality, while the real value of creating art is in the creation itself. The purpose of the work we do is to teach us about ourselves and about approaching the next work (Orland/Bayles, 1993).

Some people hold the view that a skilled composer needs only to work long enough on a composition and not prematurely abandon it for it become a masterpiece. However, a more adequate view is *the constant probability of success theory* formed by psychologist, Dean Keith Simonton. The theory states that an individual's creative output conforms to a "bell-like curve" where the majority of the works are of medium quality while the minority is of very high or very low quality. We can induce from this that increasing the amount of work produced, we have a better chance of creating works of high quality, as well as of low quality (Lehman, Sloboda, Woody, 2007).

*Originality:* Furthermore, the concern for originality can be counter-productive since learning any skill requires imitation. In fact, that is how most composers learn their craft, by copying or paraphrasing their own favorite composers (Lehman, Sloboda, Woody, 2007). The same holds true for the Jazz musician who listens to records and tries to sound like his favorite players, by transcribing and learning their solos note for note.

Salvador Dali said, "Those who do not want to imitate anything produce nothing". Mark Twain, in a letter to Helen Keller wrote the following in order to console her for facing charges of plagiarism for her story "The Frost King":

"All ideas are second-hand, consciously and unconsciously drawn from a million outside sources, and daily used by the garnerer with a pride and satisfaction born of the superstition that he originated them […] It takes a thousand men to invent a telegraph, or a steam engine, or a phonograph, or a telephone or any other important thing — and the last man gets the credit and we forget the others. He added his little mite — that is all he did. These object lessons should teach us that ninety-nine parts of all things that proceed from the intellect are plagiarisms, pure and simple; and the lesson ought to make us modest. But nothing can do that."

*Fear of Failure:* There is a lot to be said about this particular factor. Creativity requires that the individual loses the fear of being wrong, of saying or doing something stupid. This fear can be intensified through mistake-making and imperfections and the presence of social judgments. Especially when it comes to social conformity, fear plays an important role in narrowing the

possibility of taking risks and detaching oneself from what one already knows to work (Bruner, 1962). Therefore stumbling upon new possibilities becomes less likely.

The fear of social rejection is so strong that we tend to avoid as much as we do being physically hurt. In fact, research has found that social rejection crosses similar neural pathways as does the sensation of physiological pain (Kross, E., Berman, M., Mischel, W., Smith, E., Wager, T., 2011). This explains my initial reluctance to begin composing and sharing my work with friends and family. I believed, perhaps sub-consciously, that if my work does not touch people's lives and affect them deeply, then I would be regarded as a bad musician.

We are, since childhood, conditioned that being different will put us in an uncomfortable spot. Conformity is one of society's drawbacks on the artist's development. Society often rejects those who are different from the norm; it is a case of misunderstanding. We are uncomfortable with what we do not understand. This manifests as one of the fears that inhibit the artist from truly expressing himself, for he risks not being understood and rejected by his audience if he ventures well into the depth his being, the place where no set of experiences is the same for any two individuals.

When an artist's work is presented but not understood, it can be a daunting moment, because it can serve as a proof that he is indeed different and unintelligible; that can be very alienating. That is why it's important to have a period of time placed in between making the art and presenting it. Then we can dissociate ourselves, to some degree, from the work, and so our audiences' opinion becomes less threatening.

It is natural to be threatened and to take criticism personally, the reason is that the sense of self is fragile and it is exposed to the world through honest works of art. Similarly, if the work of art is not understood, then the artist himself feels misunderstood, which is another source of anxiety. This in no way suggests artists should limit themselves to what they think their audience can or cannot understand, because this will leave them in a dependant state with their audience. Therefore, no freedom, and without freedom there is no true creativity. Perhaps it is better for us to trust in the potential of our audience and to know that even though the way we experience the world differently, we still share a massive conscious and unconscious space of emotions, thoughts, concerns, aspirations and worries and that our honest art speaks directly to these. (Orland/Bayles, 1993)

I remember when I first came to New York, and I released a track called "I'm of No Race" online. It got some attention, but not as much as I thought it would, considering the depth of the idea behind it. I felt I had put in so much effort to get it right, and put a lot of thought and ideas in it, but I felt that no one picked up on them. At least no clear feedback was given. This caused me a feeling of discomfort until I later read in "Art & Fear" that artists often place too much importance on the process they've endured to produce a certain work, but to the audience, this hardly matters. What matters is the final product, that moment they are exposed to the work. It is

not their job to appreciate the process, but only to be moved emotionally/intellectually, or not to be moved at all.

I have so far covered the creative aspect of music making, mostly focusing on composition and factors that either foster or inhibit creativity. In the next section, we will explore what I have found on improvisation.

## II. Improvisation

If I were to name a single factor that distinguishes Jazz from other music, it would the extensive amount of improvisation inherent to the style. Improvisation, like composition, is a creative activity. However, one crucial difference is the time factor. While writing music, the composer can take time to revise it, edit it or even later decide to discard it. In improvisation, on the other hand, the musician does not have these luxuries, everything must be done on the spot and one certainly cannot go back in time to do anything differently. It was important for me to understand how the mind works while improvising and so I reviewed some existing theories and I will share here the ones that I relate to.

i. Clarke's model:

David Clarke (1988) presents three generative principles which affect choices made in improvisation:

a.) The hierarchical principle: The performer has a predetermined sketch of his solo from beginning to end. In other words, the performer would know (more or less) how many bars he has to construct his solo, and based on that he decides how he will shape it by sequence of events. In other words, his note choices are based on these predetermined set of events. David Clarke links this to early Jazz.

b.) The lick assembly: The improviser makes use of "learned figures" that are relevant to the style or language and simply inserts this pre-learned material during the course of improvisation. Clarke links this to the Bebop era.

c.) The associative chain: The performer begins his solo with a musical event, or "statement", and develops his solo based on that statement. The performer will use that statement to build the rest of his solo, by altering the notes, rhythms and expressive tools used in the initial statement and by finding "responses" to it, he may also later refer to the statement in its original form. So, the improviser's solo is constantly developing based on what has been played a moment ago. Clarke associates this to Free Jazz.

It is important to note that these three principles are not mutually exclusive; interplay of the three can be present in one improvisation. (Norgaard, 2008)

ii.) Johnson-Laird model:

A more recent model developed by Philip Johnson-Laird (2002) posits that improvisation is guided by a *set of rules* given by the harmonic structure/chord progression of a certain song and by 'melodic contour' consideration. The model is based on the assumption that improvisation must sparingly rely on the use of memory. Johnson-Laird believes that it is in fact easier to create new melodies based on rules (scale-chord relationship and strong notes on strong beats, as an example) than it is to rely on set of memorized phrases that are known to work.

Rules in this case can be considered the limitations necessary for a creative act. Through the consideration of rules while improvising, note choices become more restricted making it easier for the improviser to decide what to play and when to play it. The main two rules in this model are "chord/scale relationships" and "contour considerations", i.e. the shape of a phrase. (Norgaard, 2008)

iii.) Model for Conscious Mental Focus (Kenny & Gellrich, 2002)

This model suggests that the improviser's conscious attention may be directed to one of the possibilities mentioned and explained below. However, it is maintained that a simultaneous combination of any 2 possibilities is not possible, but shifting from one to the other is feasible.

1. *Short-term anticipation:* An anticipation (hearing something before the proper moment of execution) of musical events between the range of 1-3 seconds before execution.
2. *Medium-term anticipation:* Anticipation of events on between 3-12 seconds before execution.
3. *Long-term anticipation:* Longer term plan for the entire improvisation.
4. *Short-term recall:* A retrospective consideration of musical events that took place few seconds ago.
5. *Medium-term recall:* A retrospective consideration that can go back as far as 16 measures back in the improvisation.
6. *Long-term recall:* Recalling an entire improvisation from beginning to end.
7. *Flow status:* All conscious attention is directed at what is being played in the exact moment of execution.
8. *Feedback processes:* The feedback process, together with the information gathered from short, medium and long term processes provides the material to be played in future improvisations.

Bill Evans', in the liner notes of "Kind of Blue", talks about a retrospective approach applied in Japanese art: "The artist is forced to be spontaneous. He must paint on a thin stretched parchment with a special brush and black water paint in such a way that an unnatural or interrupted stroke will destroy the line or break through the parchment. Erasures or changes are impossible. These artists must practice a particular discipline, that of allowing the idea to express itself in communication with their hands in such a direct way that deliberation cannot interfere" (Gioia, 1988). What is common between the models above is the view that improvisation relies on either memory (past), or sketching ahead (future). Except for one element in the Gellrich model, the *Flow* status. That is an improvisation where all attention is focused on the moment of creation. This is the form of improvisation that I am most interested in. The reason is that it provides me with the most gratifying feeling and it is often seen as a rare stretch of inspiration.

In another interview entitled "The Universal Mind of Bill Evans", Evans talks about the creative mindset and how it becomes like a "switch" that he can turn when the moment of performance comes, even if he feels like it's impossible for him to get up and play. And that switch dependably provides him with a degree of creativity that is "satisfactory for public performance".
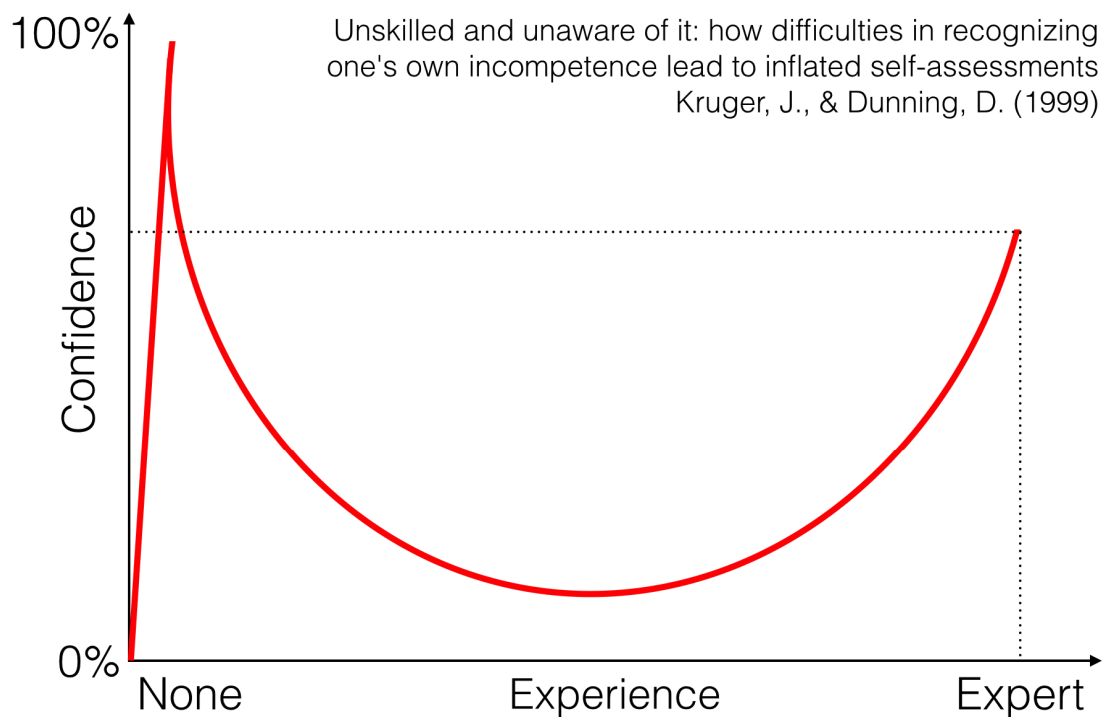
Then, he addresses the higher levels of creative moments that are less occasional, that are unpredictable and not as easy to access deliberately. These could be regarded as the moments of flow. He says that all he could do was look for these moments, and couldn't really recapture them at will. They just happened on their own.

To better understand these moments of "Peak Performance", I will discuss the notable work of Hungarian psychologist, Mihaly Csikszentmihalyi. Namely, from his book "Flow: The Psychology of Optimal Performance".

### III. Flow/Peak Experience

Understanding this phenomenon is perhaps the main motive behind my research. These elusive moments of vivid inspiration where everything seems to be falling into place during a performance. The first speculation I made in regard to this phenomenon and that is shared by several of my colleagues is that we used to experience it more when we were younger. I assumed, therefore, that the accumulation of knowledge and the concern with what is 'right' and 'wrong' to be one the main reasons behind this. I thought about this when I came across the Dunning-Kruger effect which suggests that as people become more experienced in a certain field, their tendency to realize their incompetence and criticize themselves becomes sharper. This leads to a decrease of confidence over the years of experience, until the expert level is reached and even then, the confidence level is does not make a full recovery to its initial and highest point.

## Dunning-Kruger Effect

Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments
Kruger, J., & Dunning, D. (1999)

## A. The conditions of Flow

In the book "Flow", Csikszentmihalyi provides the following definition of the optimal experience:

"A sense that one's skills are adequate to cope with the challenges at hand, in a goal-directed, rule-bound action system that provides clear clues as to how well one is performing. Concentration is so intense that there is no attention left over to think about anything irrelevant, or to worry about problems. Self-consciousness disappears, and the sense of time becomes distorted." (Csikszentmihalyi, 1990).

It is made clear in the book that in order to experience flow, a set of conditions has to be met, the following is a list of these conditions:

i. Goal-directed, rule-bound system with immediate feedback:

These are the first elements to be taken into consideration. By looking at these it becomes understandable why athletes, musicians and dancers often talk about "being in the zone". Improvisation, like many artistic activities, provides goals (e.g.: to play melodic, to play free, to improvise retrospectively) in a rule-bound system, the rules can be regarded as adherence to the form, harmonic structure, rhythmic and stylistic elements of the song. Immediate feedback is the comparison of intentions with actions. It is in the feedback process where flow interruption can occur.

ii. Challenge vs. Skill-level:

There needs to be a correlation between the skill level and the difficulty of the task at hand. If the task is far too difficult for a person's skills, then the level of anxiety will be too high for that person to be engaged in peak experience. Conversely, if the task does not provide a challenge for a person, then the level of boredom will increase and that person will disengage.
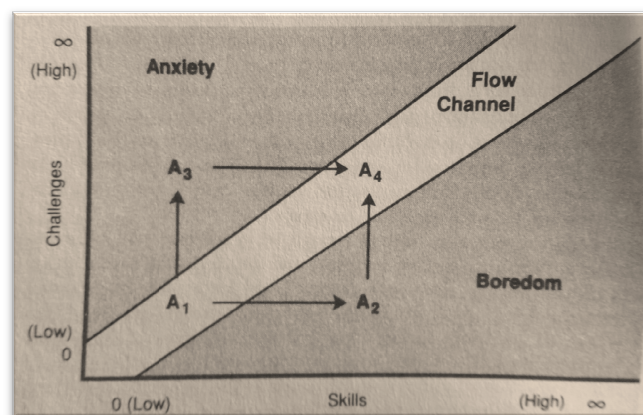
Related to this is *The Yerkes-Dodson law which* uses an inverted U graph to show the relationship between arousal and performance:
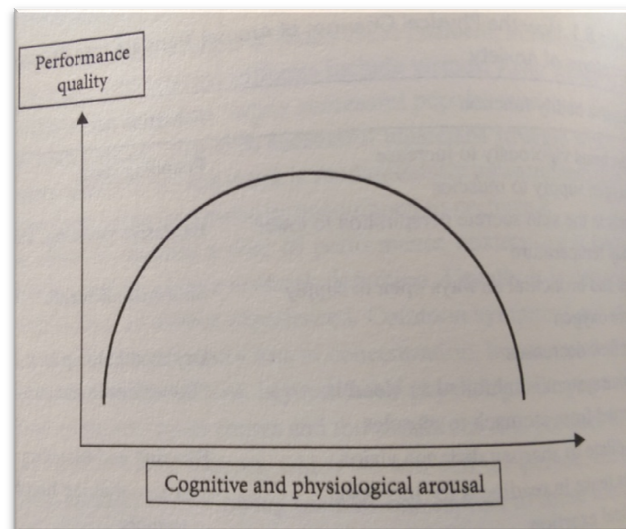


Optimal performance quality is achieved somewhere in the moderate levels of arousal. Too little arousal will cause disinterest and boredom, while too much arousal will cause '*maladaptive anxiety'* (Lehman, Sloboda, Woody, 2007).

Perhaps this is why peak experiences are elusive. As skills increase and along with them the ability to complete difficult tasks, we fall back into a state of boredom. To avoid this, we would need to present ourselves with more challenges that require us to improve our skills and get back in the flow channel. Furthermore, if we look at this on a larger time scale, we can gain insight as to why professional musicians can less frequently access the flow channel. I assume the reason is that when we are beginners, both the skills and the challenges are at relatively low and basic level. That is to say, we don't really need that much mental effort to meet the challenges presented. But as time progresses, challenges become more complex and even abstract and so a lot of thought and mental effort is required to develop the means to overcome them.

iii. Diminishing Self-consciousness and concern with failure

In flow, intense concentration on the task at hand leaves little room for distractions to come into consciousness. At the same the time, performers are not concerned with any egotistical motives like proving themselves to anyone, and so there is no concern about doing the 'wrong' thing.

<u>iv. Distortion of the sense of time</u>

From personal experience, I can say that whenever I am engaged in optimal performance, time ceases to be an important factor. Indeed, one hour sets can feel like no time at all and a minute can feel like a blissful eternity. When there is no enjoyment however, time seems to be moving dreadfully slower than what is usually perceived.

## B. To Flow or not to Flow

In this section, I will address the various factors which I have found to affect my chances to be in the zone, the reasons why and some related personal anecdotes.

<u>i. Psychic Entropy:</u>

Psychic entropy, as defined by Csikszentmihalyi is: "information that conflicts with existing intentions, or distracts us from carrying them out". In other words, entropy is disorder in consciousness. It is wastage of attention. "We give this condition many names depending on how we experience it: pain, fear, rage, anxiety or jealousy" all of which are things we experience as performing artists (Csikszentmihalyi, 1990).

A waste of psychic energy happens when "some information that conflicts with the individual's goals appears in consciousness" (Csikszentmihalyi, 1990). In my case for example, I would often experience a disruption in my attention while I was playing if say the audience was chattering, or the drummer was not really listening, or if I had something in my mind while improvising and the pianist accompanied me in a way different that what I would have wanted.

This can happen also after playing a wrong or unintended note. There my attention gets divided between my musical performance and the circumstances that obstruct me from achieving my goal, thus I am no longer fully engaged in my task.

My first memory of successfully trying to find a way around this dilemma was during my first performances in Groningen. We were playing a Jazz tune, after the saxophone and guitar solos, it was my turn. Everyone dropped out and left me alone after they had been accompanying each other and this created a nice dramatic effect often used in Jazz. But since the sound level of the music became suddenly lower, people's voices became more pronounced and I could hear the chattering at the bar so clearly.

But I decided intuitively to take the conditions presented to me at that very moment and do something with them. I remember thinking clearly that I want to play *with* the people talking at the bar, not *over* them. I remember feeling so engaged and involved in my solo. Every line I played felt so good and I gave myself the chills especially towards the end of the solo. I remember surprising myself in so many places where I reached an unfamiliar spot in my line or

on the fingerboard and I found my way back into a coherent stream of musical expression effortlessly, as if I was listening to someone else play on a recording. All throughout this time, I acknowledged the voices of the customers in the bar rather than block them out. For this reason, after reading "Flow" almost a year later, the following quote resonated very well with this experience: "There are two main strategies we can adopt to improve the quality of life. The first is to try making external conditions match our goals. The second is to change how we experience external conditions to make them fit our goals better." (Csikszentmihaly, 1990).

A week later I was playing with the same group in another venue and I had the same solo, but I could not zone-in. I know it was because I was trying to recreate it. It doesn't work that way, the conditions are different every time and even though peak experience is repeatable it varies in its nature depending on the conditions of the moment. So in trying to recreate the experience that I had on the first night I set myself up for failure, because I was trying to retrieve the experience from memory, and the very basis of flow is that it grounded in the present.


ii. What I think I heard:


Hal Galper, an established Jazz musician specialized in teaching musical mental skills at Berkeley and The New School of Music, brought to my attention that many times during a performance musicians might feel that everything sounds awful and nothing is falling into place, but then as they go back and listen to the recording a few months later and they often notice that it was actually much better than they had judged it, the following is an excerpt from a recorded interview I had with Hal Galper:

"… When you record yourself playing one night, and you listen to it the next day, you say '*Oh my God, that sucks*' and you put it away. But you come back 6 months later and you play it, and it sounds a lot better. That's because you're still carrying with you what happened during that night, what you tried to do, how someone responded… this whole thing. So all this information is in your head when you're listening. But 6 months later, you've forgotten all that. And now you're hearing it a different way. More as a listener than as a player."

In a documentary entitled "The Art of Improvisation" focusing on pianist Keith Jarrett's work an interesting idea is put forward by Steve Cloud, Jarrett's manager, as he talks about Jarrett's solo performances. Cloud says that "The magic in the bottle, you never know when it's gonna be there. So, the best opportunity is to try and record as many places as possible". On assessing whether the recording had "magic" or not, Cloud says "It takes time, maybe like a good wine. You put it in a bottle and it takes years to really figure out what's going on with it".

iii. Competitiveness:

Another aspect that can produce enjoyment for the Jazz musician is competition. In its healthy form, competition can produce a sense of friendly rivalry among Jazz musicians (especially in Jam situations) as to who can improvise with more ideas or more ease on a certain piece. This can be stimulating and provide the musicians with a lot of fun and inspiration, but if 'beating an opponent' becomes the main goal rather than making good music, enjoyment is lost and therefore less chances of experiencing flow.

It is important in musical situations to play with people whose skills match ours or reasonably exceed them in order to set the ground for a healthy competitive environment. However, one very important point brought forward by Csikszentmihalyi, is that the word 'competition' has Latin roots "con petire" which means "to seek together" (Csikszentmihalyi, 1990).

When musicians in a group are seeking to actualize their potential together, a sense of unity is created and it becomes easier for the individual to do his/her best. They provide each other with goals that transcend the individual. As long as this sense of competition does not turn into extrinsic goals like wanting to impress the audience or to prove oneself to one's peers by outdoing them, then it is possible to experience flow.

The following personal anecdote relates well to the previous point. The same day I had a Skype lesson with Hal Galper, I went out to a Jam session in Brooklyn. What Hal had said really left an impression on me, and he had confirmed many of the ideas that had been going through my mind concerning my research.

The session host greeted me and put my name on the list. A few minutes later, I was up on stage and ready to play. I was completely absorbed in the playing process and my attention was focused on the drummer, the pianist and the saxophonist. That was such a nice experience; it was so liberating and simply felt great.

That went on for about 10 minutes, until everyone had soloed except me and the drummer. It just so happened that there was confusion as to who would solo, something that often happens in jam sessions. The drummer took charge in that moment and began playing his solo. That made me feel left out, and I began fearing that I might not get to play a solo since this might be the last tune I played for the night. So I jumped in somewhere in the middle of his solo to play a whole chorus. That great feeling I had built up by diverting attention away from myself had gone away, because I was concerned more with myself than with the music.

iv. Loss of Self-Consciousness:

The anecdote I shared is similar to many presented in Csikszentmihalyi's "*Flow*". When someone has an optimal experience, they lose their sense of self. Everything becomes automatic. The unconscious mind takes over and there is no need for active/conscious participation from the

experiencer. In fact, as I've shown from experience, any intentional interference will disrupt the state of flow. This loss of self-consciousness is accompanied with a feeling of union or oneness with the surroundings (the music, the musicians, the audience, the instrument…) the experiencer becomes the experience.

In my case, I was listening to the drums as if I was playing them, the same with the piano and the soloists, I could hear them in the forefront and my own self in the background. Upon talking about this subject, Hal Galper said to me that I should hear myself last, meaning my attention should be diverted away from my own playing. This technique is also suggested in the book "The Inner Game of Music" as a means to enhance awareness (Green & Gallwey, 1986). Furthermore, Csikszentmihalyi wrote "In flow, there is no room for self-scrutiny". Indeed, once I diverted my attention to myself during the drum solo and became worried about not playing a solo and being left out (which would make me look bad in front of my peers) I lost the flow and I realized that the second it happened, which put me in another cycle of self-scrutiny. After that, it became much more difficult to retrieve it.

In a trio with Charlie Haden and Paul Motian, Keith Jarret played Soprano Saxophone. Charlie Haden says that they were listening to each other intently and getting inspired by each other's playing, he claims that this is the key to spontaneity in improvisation. "It's like approaching music, like you've never played music ever before" says Haden.

To really understand what is meant by loss of Self-consciousness, it is important to know that it does not mean loss of awareness. In fact, it is the opposite. Our awareness of what we are doing is heightened and we are focused on everything happening around us.  However, we lose consciousness of the ego, the self-image, everything we pertain about who we think we are as individuals. "When not preoccupied with ourselves, we actually have a chance to expand the concept of who we are (the self-image). Loss of self-consciousness can lead to self-transcendence, to a feeling that the boundaries of our being have been pushed forward", remarks Csikszentmihalyi. He also asserts that this loss of self-consciousness can only occur if the activity is *enjoyable* (Csikszentmihalyi, 1990).

v. Self-scrutiny:

A few years back in Lebanon, I was the youngest Jazz musician in the scene and I had placed an enormous amount of expectation on myself. I was after all playing with the best piano player and drummer in the Lebanese scene and I had just entered the world of Jazz. Many other bassists who wanted that position came to see me and I often felt pressured to prove myself to them. I quite often felt the need to impress my teacher (the piano player) as well, since he was my mentor and my only trusted source of feedback at the time. So most of my energy went into making sure I did things that made me look and sound good on stage.

During my stay in New York, I noticed that since there is a vast number of great musicians, I felt less of a need to assert myself. Everyone is welcome and encouraged to play at sessions. This

helped me not to worry about how I played or whether or not I left an impression. It didn't matter to me. I had no interest in trying to prove myself and so I often found myself in a state of flow in sessions.

Next comes the social factors, family in specific. Csikszentmihalyi makes a point that perfectly resonates with my experiences as a child. He makes the claim that the way parents treat their children has a strong impact on how easily children can enjoy their lives. He refers to a study conducted at the University of Chicago by Kevin Rathunde and presents five characteristics of the family context that promotes optimal experience:

1. *Clarity:* Children know clearly what their parents expect from them, "goals and feedback are unambiguous".
2. *Centering:* Children feel that their parents are genuinely interested in what the children are doing in the present rather than being concerned with future events like getting into a good school or obtaining a good social position.
3. *Choice:* Children know that they have the freedom to choose between many possibilities, even breaking their parents' rules.
4. *Commitment:* "the trust that allows the child to feel comfortable enough to set aside the shield of his defenses, and become unselfconsciously involved in whatever he is interested in".
5. *Challenge:* This refers to the parents' initiative to present their children with "increasingly complex opportunities" that will ultimately promote growth.

I grew up in an environment where these characteristics were not very tangible. I did not feel encouraged by my father when he felt that I might consider becoming a musician, he was worried I could not make a decent living, in his defense. I did not have much freedom in my surroundings, I always felt observed and a strong sense of self-image was implanted in my mind since it was a society where things like "social status" and "public opinion" mattered a lot, especially that I grew up in a very small village of about 300 people.

I felt that my defenses had to be up most of the time to protect my image and that of my family. My parents were not very active in my life, for reasons I do no blame them for. And so they were not able to provide me with some of these five characteristics. I still often experienced flow as a child and teenager, nonetheless. Playing video games, opening my Christmas presents, playing with remote control cars, but no better memory than that of coming home to play my guitar for hours after school.

Education was another factor that I believe has affected my ability to have optimal experiences. There was always the fear of punishment in case I did this or that. And bad grades meant "bad person". Naturally, that intensified my need to protect my self-image and subsequently lessened my ability to enjoy life as a teenager. This brings me to the wide subject of fear.

# IV. Fear & Re-conditioning

With so many kinds, manifestations and disguises, fear is something that has captured my curiosity and attention. I am concerned here with psychological fears more than physiological ones. In eastern philosophy, fear is regarded as a mere activity of thought, albeit an active and powerful one. When Jalaleddin Rumi talked about fear he called it the: "non-acceptance of uncertainty… if we accept uncertainty it becomes an adventure". Jiddu Krishnamurti defined fear as the movement from *certainty* to *uncertainty*, "Fear is not of the unknown, but of the loss of the known. The unknown does not incite fear, but dependence on the known does. Fear is always with desire, the desire for the more of for the less."

If we stop to look at these statements, we can see the similarity between the activity of fearful thinking and that of art-making. In creating music, whether improvised or composed, the same road of certainty/uncertainty is taken. However not necessarily in the same direction. "Art is like beginning a sentence before you know its ending", remarked Orland & Bayles (1993). It follows then, that upon engaging in art-making, I begin with vague ideas of what I want to achieve. The initial possibilities are endless, but as the work progresses it begins to take on a certain form and that, little by little, begins to diminish the number of choices available (Orland & Bayles, 1993). Therefore, in this case, I am moving from *uncertainty* to *certainty*. So perhaps that is the reason why making art in this way can be a comforting activity for the viewer and the maker, it moves in the counter-direction of fearful thinking.

In Zen Buddhism, there are Five Fears that stand in the way of actualizing freedom of the mind. Fear of loss of life, fear of loss of livelihood, fear of loss of reputation, fear of unusual states of mind, and fear of speaking before an assembly. Stephen Nachmanovitch, in his book "free-play" adds 'fear of ghosts' which is relevant to any musician who idolizes certain heroes whose level he believes he may never reach. "Brahms couldn't finish his first symphony for twenty-two years because he had a monkey on his back called Beethoven" states Nachmanovitch. Schubert after hearing Beethoven's 14th string quarter said "After this, what is left for us to write?" This comparison with others causes a deviation from the self and from the goal of art-making.

Of the Five Fears mentioned above, the most related to the performer are the fears of loss of reputation, unusual states of mind, and speaking before an assembly. These fears are all related to what other people think of us, which is reminiscent of Sartre's statement "Hell is others". To clarify the fear of unusual states of mind, Nachmanovitch explains that it is to be regarded as fear of appearing or feeling foolish. All these three fears are related to the preservation of the Ego, the image which we have built about ourselves and feel the need to protect (Nachmanovitch, 1990).

Another way of understanding fear is to see it is a defense mechanism against physiological pain and for the preservation of the organism. The fight and flight response designed to protect the organism from physical threat is activated upon perception of danger. Blood pressure rises causing body temperatures to go up with it. More Oxygen is needed for this alert state so breathing increases and the process of digestion halts, causing a feeling of nausea. The body wants to contracts into the fetal position and trying to resist this causes shaking. Blood vessels in extremities close in order to prioritize major body parts, giving the sensation of cold feet and fingers. (Stevens, 2015).

It is easy to understand that these responses are necessary if an individual's life is threatened. But why do people have similar reactions to some social activities like performing or giving a speech? According to recent research, the pain of being shunned by society for appearing stupid or incapable triggers the same neural pathways as being physically hurt. The fear of saying something stupid or of making mistakes is heightened when the individual is faced with a larger group, thus it is perceived as a physical threat. (Kross, Berman, Mischel, Smith, & Wager, 2011)

Let us now look at some of the fears that would take place in my mind as I am improvising or presenting my compositions.

i. Making mistakes:

One consistent factor that disrupted my creative flow was my attitude towards mistakes. A mistake on the band stand could take on several forms. It can be an *unintended note*, which often created *psychic entropy* in my mind. It is a sound which I may reject for various reasons and thus label as a mistake because I previously learned that it is a *theoretically* inappropriate choice (like a minor 3$^{rd}$ on a major chord or vice versa, a natural 5$^{th}$ on a half-diminished/diminished chord) and it can also simply be an *out-of-tune* note because of finger misplacement.


Mistakes can be the result of rhythmical inconsistency with the rest of the group. This is known as "turning the beat around"; it happens when one musician is on a different beat than the rest of the band and has trouble finding his/her way back. And one more 'mistake' I can think of is *losing the form*, which is when musicians lose each other and are playing different sections or bars in the song.

Naturally, through practice, experience and understanding the problem, the margin of error can be minimized. What I am concerned with here, however, is the mental activity that takes place after the mistake, which often for me was severe self-criticism.

While self-criticism was necessary for my improvement, it took its toll in the long run because I didn't know when and how to stop it. I let the critical voices in my head loom over me whenever I had a performance and they left me exhausted, dull and unable to enjoy playing. When a certain performance mattered so much to me, I would invest a lot of energy into suppressing those critical comments which was an effort on its own.

In "Free play", Stephen Nachmanovitch describes the creative person as containing two characters: 'the muse' and 'the editor'. The muse is the source which presents all the raw unconscious material and the editor shapes and organizes. The problems begin, according to Nachmanovitch, when the editor precedes the muse. That is when artists judge their work negatively before they even begin which can lead to creative paralysis. This *'judging specter',* as Nachmanovitch calls it, can often turn into a menacing father figure, which is what happened with me. I turned my first Jazz teacher into a dominant father figure who always criticized my actions in life and in music. His voice followed me everywhere and because he was neither creative nor encouraging in real life, so was the image of him in my mind. If I attempted something novel, his voice would tell me it's stupid and I'm making a fool of myself. This 'specter' is psychologically known as an *Introject*. It is "the automatic internalization of the parental and other judging voices that throw doubt on whether we are good enough, smart enough, the right size or shape" (Nachmanovitch, 1990).

Nachmanovitch distinguishes between two types of judgments, however: constructive and obstructive. Constructive judgments run parallel to the creative process and give proper data for the next step. For example, in Jazz improvisation a constructive judgment can come in the form of hearing myself play a nice line, and then based on that make the decision to leave some space and respond to that very line. In composition, constructive judgments can come after attempting to play a piece with an ensemble. For example, the first time I rehearsed my arrangement of "Night in Tunisia" with my group in New York, I made sure to record the first attempts. When I took the recordings home, I listened to how it sounded and made constructive judgments about certain sections that I thought could be enhanced and about the overall form of the arrangement.

Obstructive judgments, however, run perpendicular to the creative process, thus interrupting it. If they come before the creative act, they can lead to writer's block. If they come after, they lead to rejection or indifference to the work created (Nachmanovitch, 1990).

As an example of this, Lee Konitz talks about being on stage with Warne Marsh and Lennie Tristano and facing obstructive judgments: "Listening to Warne and Lennie, I figured that the music had hit a high spot and I couldn't add anything. I'd feel that I couldn't participate in the music at the moment – which is a devastating feeling for a player. […] I was frequently inhibited in my playing, being afraid of high intensity. The fear of not being able to come up with something." (Hamilton, 2007)

I've experienced obstructive judgments a countless number of times. I would be improvising and then at some point, I would begin thinking how a great solo would sound and fit the situation and that I am falling short of this. The voice of judgment can also come after success, it can say something like: "If I played a great solo on the previous song, then I had better play great all night", having this desire makes it more difficult to create music while enjoying every moment of the process (Nachmanovitch, 2007).

<u>a. Changing my view of mistakes:</u>

Until last year, I have never invested any time in transcribing a solo or a bass-line because I had other priorities and I didn't want actively work on sounding like someone else, I had an aversion to imitation but now I realize it is essential at least in the beginning stages of learning. Classical music composers, for example, are known to have studied the old masters by literally copying, paraphrasing, and imitating them (Lehman, Sloboda, Woody, 2007).

The first transcription I made was of one my favorite Jazz tracks "Work song", from Charles Mingus' Live at the Bohemia album. I transcribed the entire bass part, including the solo. The bass-line was very interesting and it turned my attention to several possibilities which I use nowadays. But what was really a surprise was the bass solo section; I was so enthusiastic to find out that Mingus' had actually lost the form and turned the beat around! Well, it can either be that or he was soloing freely on purpose, but he definitely did not adhere to the 'rules'. That was an enlightenment, one of my heroes, one of my favorite tracks fell short of perfection!

After this realization I continued to transcribe another track from the same album "Jump Monk". I had memorized Georges Barrow's saxophone solo because I had listened to it so many times before. I would have never suspected the 'mistakes' I found. In one part, he plays a major third on a minor chord (An A-natural over an F-minor chord). He even played a major II-V-I pattern on a minor II-V-I progression, and when I saw that natural fifth on a half-diminished chord (with a flat-fifth) I could hardly contain my excitement. Later I transcribed John Coltrane's solo on "Moment's Notice" to find several mistakes as well. When I shared this with Hal Galper, his response was "You were making the assumption that the player meant everything he played. That's not true, he heard everything he played."

What fascinated me the most was that I would have never been able to recognize these mistakes without transcription. That is partly due to the fact that the musicians themselves didn't fumble around trying to adjust to the mistake, I'm not even sure they were aware of it.

Hal Galper's concept of practicing "creative mistake making" is another tool that I applied. The first thing I found myself doing to any fearful thought was repressing it or avoiding it. But I found that in Eastern philosophy, uncovering fear and observing it instead of trying to manipulate it is more beneficial. So I regularly practice mistake making by intentionally playing the note that I would avoid and see what I could do with it, this is a way for me to recondition the initial response of suppression which interrupts the flow.

ii. Practice and performance attitudes:

I have reason to believe my self-scrutiny was further intensified from long hours of practice. I practiced 8 hours a day for a period of 3 years to rise up to the level required for playing with all these advanced musicians in the Beirut Jazz scene.

During this time, while I practiced Classical and Jazz music, I developed the habit of scanning for mistakes and inconsistencies. This seemed to be the most logical way to improve my performance skills and it yielded notable results. However, the problems began when I carried over this attitude over to performance situations, whether it was a casual meeting with friends or a formal concert for a large audience, I was so intent on playing correctly that creative and honest self-expression was far out of my aim. Eventually, I became so good at finding mistakes that I was never satisfied with my performance or that of others.

Upon discussing the subject with Hal Galper he remarked: "It's a fact, there's a difference between the practicing attitude and the performing attitude. And if you're doing more practicing than playing, the tendency is to bring the practicing attitude to the bandstand."

Perhaps I practiced much longer than I needed to. I do recall losing that sense of deep involvement whenever I passed a certain time limit, especially without breaks. But I continued nevertheless, and I can understand why perhaps after years of long practice hours while dealing with the physical discomfort of standing and tensing up, the constant shifting between enjoyment of playing and analysis of how it can be improved and the loss of a high level of involvement due to overload, could have conditioned me to be the same on stage, especially that I was playing almost every night in that period.

Practice is of a circular nature: play-evaluate-play differently-evaluate… Problem recognition, choice of strategy, performance, evaluation of performance, "Its effortful nature also implies that it can be sustained or only limited amounts of time every day, usually around 4 to 5 hours for adults, without leading to psychological or physiological burnout in the long term. Performance should ideally be of a more linear nature.

Furthermore, practicing after reaching mental or physical exhaustion leads to playing mistakes. "It is advisable to distribute practice time over several shorter practice sessions than to cram a whole day's work into one sitting. The reason is partly neurological: during rest and sleep, cognitive restructuring (consolidation) takes place, giving the brain time to digest the learned material. A good example of how your brain gets clogged with material occurs when you practice a passage and it deteriorates instead of improving (psychologists call this "proactive interference"). In short, the brain cannot sort out the different attempts because they are confusingly similar. Working on something markedly different in between passages releases this interference." (Lehman, Sloboda, Woody, 2007).

<u>a. Re-conditioning the practice attitude:</u>

A new question arises. How do I unlearn all this? It is, after all, the purpose of my research, to free the creative mind from its own self-imposed restrictions. The first thing that came to mind was to alter the way I defined practice, then alter the actual way of practice to somehow reconcile performance and practice attitudes.

My previous definition of practice was that it was time spent sharpening my skills to a point that I could rely on them whenever I need them. These skills would mostly be used to execute already known material. That became problematic after a while. How can I be an improvising Jazz musician, if I am only inserting fragments of physical and psychological memory in moments of time?

So, instead I adopted a new definition. Practice is time spent learning new things, unlearning or editing old things, practicing *non-judgmental improvisation,* and playing for the fun of it. I see this as a creative way to practice. It came out of the conviction that the way I practice, is the way I perform. If I doubt myself in the practice room, I will invariably doubt myself on stage.

The practice of *non-judgmental improvisation* is achieved by setting a certain time of my practice routine to playing either completely free or over the changes of a standard while attempting to divert attention away from the analysis of what is being played. I could do this by simply observing my fingers movement, for example. Doing this now really makes me appreciate and trust the complex process of playing and that the fingers move independently from conscious interference. In fact, it is such a complex adaptive system that any intellectual activity disrupts it. I've often heard the bike analogy, where if someone begins to analyze how their body is functioning in order to ride the bike, keep the balance and so forth, they end up messing up the process.

There should also be a time in practice to do anything. This is the "go for it!" section of practice that Lee Konitz talked about and that I applied as *non-judgmental improvisation*: "to experiment without fear of consequences, to have a play space safe from fear of criticism, so that we can bring out our unconscious material without censoring it first" (Hamilton, 2007).

This can be associated to what Hal Galper calls "practicing mistakes", it is an exercise that he makes his students do in order to unblock their 'censors' and open their creative minds by helping them see that there is no real threat in making mistakes.

"Intelligence is not required to be a good improviser. Usually it gets in the way because we are so used to using our intelligence as a problem solving tool that we think we can use our intellect to play. The problem is that the intellect is too slow to use during the process of playing. But the intuition and the ears working in conjunction make decision 20,000 times faster than the speed of the intellect… The brain works in a serial fashions from one perceptual chunk to the next. What

you're trying to do is to hear what you're playing and at the same time analyze. You can't do those at the same time, it's either one or the other", remarked Hal Galper during the interview.

Last year, I found a way that lets me "prepare to be unprepared" as Lee Konitz would put it (Hamilton, 2007). I don't know exactly when it started to come about, but I know that I began to yield results sometime in the beginning of the 2015 school year. I have a few recordings that demonstrate what I'm talking about.

I will take a live recording of my solo on Alina Engibarian's "That might be wrong" as an example. When we rehearsed this song for a concert, Alina asked me to play a solo on it. During the rehearsal I didn't have an idea in mind as I was simply reading the chord changes bar by bar and so I could only play that way.

After the rehearsal I took the music home and began looking at every chord and finding its corresponding scale. Then I tried to think of one scale for the whole solo section that varies slightly with every chord change. That way my thinking became more linear since a scale is linear (horizontal) by its nature.

After that I began to play through the changes and whenever I improvised a nice line I would stop and try to play it again, not to memorize but to try to understand why I enjoyed playing it. Because that's the purpose, to enjoy what I play. I would find theoretical explanations because it's the easiest way to give intellectual meaning to music, for example: on the Abmaj#5 chord, I enjoyed the sound of an F-melodic minor scale, of course because it's consonant and because it's a slight variation of the scale before it.

So after this process, I had intentionally blurry sketches, several ideas and possible directions I could take. I didn't want to pre-decide anything because whenever I did that like it never felt like I was playing who I am. So I avoided saying things like "I want my solo to Bluesy" or "I should sound modern" or "I should play melodic/technical". Instead I simply gave myself many possibilities and let it be. On the concert, I remember not knowing what's coming next but knowing that I will be able to handle it. I was able to play very fluently and freely.


b. Application to composition:

I used a similar approach to composing music as well. I began doing it by writing new melodies over existing standards; these are referred to as "contrafacts". The first one I did was over Miles Davis's "All Blues". I found an interesting way to play patterns in 4th's derived from the diminished scale in David Baker's "Modern Concepts in Jazz Improvisation" and I began practicing them to internalize their sound. After that I decided to apply these concepts and develop them by writing out a new melody over "All Blues". I wanted the melody to sound intuitive, almost improvised. So I proceeded to compose it like that. I brought out my laptop and

on Sibelius I wrote the first phrase which I had already in mind, then I began writing the next phrase and then one after that without much revision, until I had an entire melody which I later recorded with a quintet. Later I did the same with a contrafact on Thelonious Monk's "Bemsha Swing". I would write the next note of each line based on interplay between my intuition and my intellect, and if I put in a wrong note, then I would try to develop it into something new and resolve it somehow in later bars. This helps me in slowing down the process and internalizing possibilities.

This can be seen as a form of *free-writing*. It is a method well known to help authors with creative blocks. Authors can just sit down and write whatever words come to their mind and their only focus would be on the next word. Musically, it is a way to let notes and lines flow out freely without judging them.

One of Alan Watts' lectures entitled "use your mind as a mirror" caught my attention because it deals with this form of spontaneity. He talks about an ancient Zen monk who had very long hair, and would get drunk on rice wine, soak his hair with ink and splash it on the canvas. Later, he would examine what landscape the "splash" resembles and then put in the finishing touches, and that is where the real art begins. I found this story interesting because I feel that my best work has started like this. I would often just sit at the piano and record myself, sometimes I would play absolutely anything, and then I would listen to the recording and pick things from it and develop them.

Also, sometimes I would write a melody and then add chords to it. After it has been set, I would play it back and experiment with changing the bass notes completely, which changes the harmony and sound of the whole thing.


iii. Physical discomfort and The Alexander Technique:

I had only one bass teacher for a couple of years and I started studying with him when I was about 24. Before that, I did everything on my own. So I had developed a lot of bad physical habits while playing music. Habits mostly related to posture and unnecessary muscle contractions. When I was playing on a nightly basis, I was moving bass and heavy amplifier from one club to another and back home. That, combined with standing for two hours with my weight unevenly distributed (I noticed that I was placing most of my weight on my right leg) began to make playing more and more uncomfortable. I thought it was the normal sequence of events since I heard a lot of musicians complain about these discomforts and some of them complained about injuries. Luckily, I never had an injury, so I thought I was better off than the others.

During my first year in Holland, I heard about the Alexander Technique as method of alleviating unnecessary tensions in the body. The following is a concise explanation of the technique: "The

Alexander Technique is a method that works to change (movement) habits in our everyday activities. It is a simple and practical method for improving ease and freedom of movement, balance, support and coordination. The technique teaches the use of the appropriate amount of effort for a particular activity, giving you more energy for all your activities. It is not a series of treatments or exercises, but rather a reeducation of the mind and body. The Alexander Technique is a method which helps a person discover a new balance in the body by releasing unnecessary tension. It can be applied to sitting, lying down, standing, walking, lifting, and other daily activities" (Retrieved from www.alexandertechnique.com)

I began searching for reading material related to this and I found a book in the school library called "How You Move, How You Stand, How You Live" written by Missy Vineyard. It was on the Alexander Technique, and one section dealt with fear and the role it plays in these tensions.

Here are some key points from the book:

- The Amygdala, a section of the brain responsible for conditioning fear response, evaluates incoming sensory stimuli and labels them as threats which triggers fight of flight responses: Attack, freeze, withdraw, and submit. It can misinterpret harmless signals and start a false alarm. A sense of dizziness, stomach ache, and improper sitting posture can trick the Amygdala into thinking the organism is at threat. It can even confuse memories with present situations, for example projecting the image of a dangerous dog on the harmless one facing us and causing us to panic. This is an important realization and one of the foundations of the Alexander practice. Understanding that the cause-effect chain in the body goes in both direction was very important to me. To put it simply, we know that when we are in a sad situation, our body sinks and closes in on itself (hunched shoulders, closed chest and bent neck). If a person's mood is neutral but out of bad habit a person sits like this for a while, the brain will understand that there is a sad situation because it associates the feeling with the physical reactions.

- The defense mechanisms which worked in the past linger in the memory and are called upon for later use (automatically) even if the situation does not require them. For example, if someone hurts their leg and they start limping for a while, as the leg heals and returns to normal a person may still limp for a while because the brain did not yet acknowledge that walking normally will not cause pain. The body stores these reactions because their response is unconscious and automatic, thus much faster than the intellect.

- With insight into the causes of fear-reaction, conscious intervention can help. When ideas and images of the self in relation to the outside world begin to drag one another they simulate the Amygdala to trigger a defense response for preservation of the self-image. This is an unconscious activity that aims to protect us, but often does the opposite. If we are able to observe and understand how these reactions take place and follow them to their origin then we can change the usual flow of events by making the unconscious conscious.

- Conscious Inhibition: is an important concept in Alexander Technique. It is the ability to cease unwanted activity in the organism at a neurological level, through conscious thought, which in turn changes the organism's activity at a larger, behavioral level. Sometimes simply thinking about playing can cause my shoulders to tense up and my knees to lock. Inhibition while playing means telling myself that I am not playing and then attempt to play while keeping attention on the any signs of tension. Once tension begins, we stop and try again. (Vineyard, 2007)

After reading the book and being exposed to these ideas, I decided that I find a teacher and would take some Alexander Technique lessons in New York.

Alexander Technique lessons:

During my semester in New York, and with the help of the school fund, I was able to find an Alexander teacher who happened to also be a musician. Her name was Sarah Ferholt, and I had 10 lessons with her.

I talked to Sarah about the fears that musicians may have. Fears related to the *Self-image* and making mistakes. We discussed the mind's effect on the body as it defines a certain situation as fearful. The first thing that happens is that the body becomes alert and muscle tensions occur, creating an overall feeling of unease, which certainly gets in the way of performing freely. Sarah mentioned something that truly captivated my attention and led me to an important realization. She said that in situations of fear/danger, the intellect is too slow to react as there is far too much information to process and understand, so what the brain does is memorize certain "patterns" from previous experiences that worked in protecting the organism from the perceived danger.

Consequently, when the brain detects a stimulus it needs to categorize in order to react to it, and so if it labels a situation as "dangerous" (as it often does) the first reaction will be to reach back into the memory and find the preset pattern that will resolve the issue, but often these patterns can be counter-productive.

This realization that I reached from this observation was that the same thing happens to improvising musicians all the time. We even use the same word of "patterns" also known as "licks". We are faced with a problem (improvising on the song) and we need to solve it, not being able to solve it means we are unskilled or untalented, being unskilled/untalented means being a failure. This puts the ego in danger as it threatens to tarnish the self-image, and so the quickest reaction is needed, because we don't have time to relax and assess the situation on stage. The brain reaches back into the memory and finds solutions it knows will work because they have been tested and proven, thus stored. That whole process, in my view, is hardly *creative*; there is not much that is fresh or new about it.

# V. Conclusion

After two years of studying and focusing on the psychology of music performance what can I say I have learned? Well, aside from everything I discussed before this section, I know that all I have gathered so far merely sets the foundation for further inquiries into this mysterious subject. In order to know whether this research benefited me or not, I must compare the musician that I was two years ago with the musician I am today. I can do that based on my memories in my head, but I also can refer to hundreds of pages of well-kept thoughts in my journals which even date further than two years ago.

From a composition standpoint, I've been able to increase my output significantly and share my music with my peers and teachers with little if any fear or worry; my effort goes straight into writing instead of worrying about audience feedback even before beginning. I am regularly composing music simply for the joy of it, and I have also been able to find an approach to improvisation that resembles me and my world-view, mostly producing a gratifying feeling of satisfaction yet breeding a sense of curiosity at the same time. I avoid carefully planned solos and meticulously detailed practice routines and simply allow whatever wants to unfold. Instead of relying on material that I know will work for improvisation, I am always taking chances and my sense of discovery is more powerful than my fear of playing 'wrong'.

I am much more enthusiastic and open to playing music than I was before coming to the Netherlands and my understanding of life, not only music, has also changed thanks partially to my research. I am always looking for new experiences, musical or otherwise. I am much less hasty at doing things and at forming judgments mostly because I've understood the tricks my mind can play. Why do I, and many other humans, have this tendency to get in our own way? I haven't found a convincing explanation… yet.

So far I have only talked about myself in relation to my findings, but one important quality that I have gained through this research is a better understanding and appreciation of other musicians. Although subjects like creativity, perception and fear are very difficult to communicate to others, musicians are generally deeply interested in them, but not very keen on discussing them because they are not easy to verbalize. This has opened up a whole new world for me, especially when it comes to leading my own projects. How do I share these ideas, how do I put them to use for others? I am now experimenting with sharing my ideas with my band and I would ideally like to reach a stage where all six of us are engaged in collective music making.

 I am trying different things with the musicians in order to get their imagination going, and to put them in the zone. For one of my pieces "Modjajdi", I told them the story of the current drought that has struck South Africa. I printed out three sets of photos, one of a dry wasteland with dead animals, one with the rain-making ritual of the Pedi tribe and one of the drenched lands full of life. After we rehearsed the simple written melody, which is no longer than 20 seconds, I

proceeded to put these pictures in front of them and asked them to improvise in a story-telling fashion. We would begin by depicting the dead, dry landscape then for the second picture we would play the melody and improvise over the rhythms to portray the trance-like rituals that will hopefully bring rain. After the climax, the thunder roars and the blowing winds, we improvise over the third set of pictures by creating sounds of rain on our instruments. Aside from this being a lot of fun to do, it makes music-making a collective effort and engages everyone into active listening and participation. It reminds us that music is a lot more than written notes, harmonic theories and rhythmic cohesion. When we collectively play together, then we are less likely to be concerned with these things and ourselves as individuals, we seek inspiration in what the other is doing, and that is how we often zone in together.

I always record our rehearsals, and ask the musicians how they felt each piece went and I would also share my thoughts. Then I would listen to the recordings a few days or weeks later, and compare these thoughts on each listening. Usually upon listening to the recording I am intrigued and sometimes completely blown away at what we are doing, but we hardly ever notice this when we are busy playing. So I've learned not to give much value to my perception of what is happening at the moment of playing, as that liberates me.

One of the things that I plan to do after I graduate, is to go back to Lebanon and do a lot of teaching and playing. Everything I've found in my research is valuable for teaching musicians to improvise and compose. I know what a destructive method of teaching is because I've experienced it first-hand as a student; luckily I've recovered, and I am committed to finding the best way to liberate musicians' minds rather than oppress them. Another long-term plan is the possibility of pursuing a PhD program somewhere in Europe and focusing also on the psychology of music, but maybe this time more from an audience perspective.

Finally, I have to assert that I see this as a long path that will bring new insights with every step. Even though I've reached the conclusion section of this paper, it by no means signals the end of my search. I will continue to delve into the wondrous subject of human consciousness and I already see the infinite possibilities and realizations.

But that is for the future. For now, the first chains have been broken, what comes after is a new world with its own rules and boundaries, whose chains may just as well require breaking.

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