

Olga Bobrovnikova's

TRIANGLE OF PERFORMANCE



“PLAYING WITH THE MIRROR NEURONS”



**The Triangle of Therapy
and
Performance**

Olga Bobrovnikova



Picture by Steven Kennedy 2005

Chapter 1

What is Musical Performance?

It all started, when I was asked the simple question,

“Can you teach performance?”

My instinctive answer was “no” and I gave this answer because the question was asked in the context of a discussion about the merits of the performance of Arthur Rubinstein, Emil Gilles, Vladimir Horowitz and Sviatoslav Richter and I took it to mean, can you teach that level of performance.

The follow up question was,

“what were you taught about performance?”

Quite frankly having graduated from the Moscow Conservatoire and continued post graduate studies at the Gnessin Institute where I was assistant class master, I had to say, I could remember nothing that I was taught about performance.

My naïve questioner then asked -

“why are some performances great and others simply boring, when all the notes are played accurately”.

This was immediately after the questioner had slept through two performances of Rachmaninoff 2nd Piano Concerto, his favorite work, at the Queen Elizabeth Piano Competition in Brussels.

By this time I was trapped and beginning to be interested, as my own perception was, that some gifted individuals have a “god given talent” to understand, interpret and play at a higher level than others.

The discussion did not stop at piano, as the questioner and myself had, for some time been trying to define who our favorite conductor was. The same type of questions arose –

“Why were Mengelberg and the other giants like Beecham so musically great and many other very famous conductors just baton wavers and poseurs?”

Foreword

I graduated from the Moscow Conservatoire then studied for my post graduate Diploma in Musical Therapy at the Gnessin Institute, under Prof Riker.

Having performed for 20 years I was suddenly diagnosed with Multiple Sclerosis and this event changed me and my perspectives. I now play simply for my pleasure and the pleasure of my audiences.

In seeking to achieve pleasure I began to understand the mysteries of performance and its historic changes.

I discovered that in 1895 the Moscow Conservatoire introduced the “New Formula” to replace the “Old un-Christian Rules”. This change altered the style of piano performance.

This small book shows that performance and therapy actually share the “old rules” that are no longer fashionable.

**Olga Bobrovnikova
Alseberg, April 2005**

Then the next question must be –

“Does everyone recognize the same performance as the best performance?”

For a number of years I have been selecting and collecting my reference performances of the romantic piano repertoire. Are these CD in my selection really the greatest? One might expect argument about the merits of lesser performances but if it is a truly great performance, do we all agree?

Then another question

“Why do so many competition Laureates fail to establish good performing careers”?

I can answer that from my own experience – any performance that contains risk, reduce the chances of winning competitions. Any performance that is risk free does not arouse the emotions of the audience.

Is this why we have hardly any performers willing to take risks and perform like my idols; Gilels, Horowitz and Rubinstein all of

whom have been guilty of bad notes and legendary stories of “freezing” on stage.

At this point I must add the name of an unknown virtuoso, Paul Pabst, who in the 1880 was reputed to frighten audiences with the passion of his performance, and also managed to reduce Anton Rubinstein the “Lion of the keyboard”, to tears.

This lost virtuoso composer and professor is the reason I started to try and understand performance.

Miraculously, five of his Edison cylinders have survived from 1885-90 as a testament to the performance skills of Pabst a skill of highest quality, lightening fingers and perfect phrasing but above all, natural rubato and freedom in interpretation.

I fought all my professors to protect my freedom of style and expression. I was, and still am, unable to perform adequately if I use a score as I can feel no real emotion while sight reading.

After studying, thinking and discussing the matter

“I understand performance of romantic music to be the communication of ideas (images and emotions), by the use of the language of music.”

This is not achieved by just playing the notes from a score. That would be like a play with the actors carrying the script around and simply reading the words, or even worse, reading the play letter by letter –

Technology allows computers to read books and play musical scores – perfectly! But until now, and probably for all time, this is achieved without sense; there are no ideas behind the language.

In my therapeutic work – the use of music without ideas and objectives is useless.

Ideas are what make us human!

Chapter 2

The Elements of Performance

If performance is about transmission of ideas, we need to address questions like;

What ideas did the composer try to communicate?

Is the performer transmitting the same ideas as the composer?

How do we transmit these ideas?

It seems logical that the most convincing performance will be achieved when the performer interprets the composer's ideas and retransmits them to the audience. Those rare concert moments, when we get transported, excited, aroused to the point of ecstasy, when the composer, his music and the performer are one! How often does this happen?

In rare moments I have cried as part of audience. I have also cried as a performer and at those times I have never cried alone.

So, if the ultimate performance is about **emotional expression**, how is it possible to teach or learn to perform emotion?

Just what sort of process can be employed to create emotional performance?

Like any physical human task, piano playing requires skill. Without the development of **physical skill**, nothing is possible.

Secondly, if one is to play at concert level, one must be able to memorize works to be emotionally free, this requires **mental skill**.

This essential requirement was defined by Hans Von Bulow, one of the greatest piano virtuosos and first performer of Tchaikovski B flat Concerto, who said;

“put the score in your head not your head in the score”

I realized that performance must be considered as a triangle with sides representing the key elements;

- ♪ Physical
- ♪ Mental
- ♪ Emotional

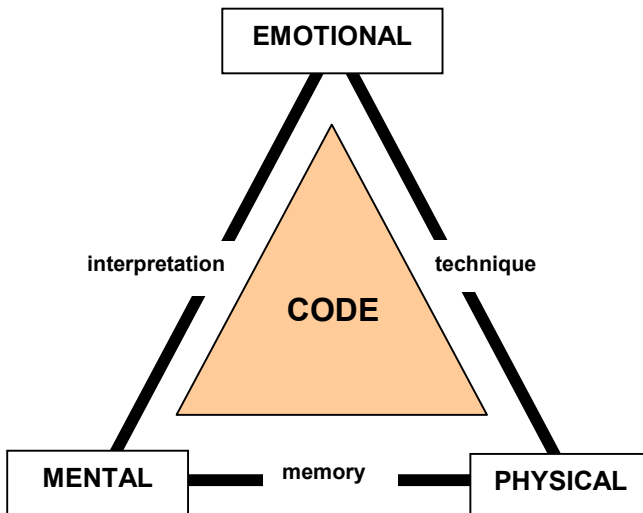
Each element has processes;

Technique to physically read and play music on the keyboard.

Memory to remember and manage the articulation of the musical score

Interpretation to identify and transmit the emotions and images in the score

“Triangle of Performance”



The secret to optimizing one's effort, is to have a balance between the three sides of the triangle.

Since I first visualized performance in this way, I have been surprised to realize that this representation fits most performance, be it, musical, athletic, theatrical and even life itself.

Each type of performance will have a different code. In theatrical performance the code is self evident – it is the script. Even though the script only contains words, we understand their meaning from our ideas and cultural context.

The job of the actors and director is interpretation and articulation to ensure the audience understands the meaning.

This should also be the case with symphonic works, where the conductor is essential to interpret and govern the articulation of the individual performers.

As pianist, we are director, conductor and the whole orchestra. The piano being unique among instruments one can, in theory, strike 20 notes at once, with multiple voices!

How does one unravel the notes and find their meaning?

“What is their historic cultural context?”

“Where are the clues coded in the music?”

“What is the language of music?”

Chapter 3

The Language of Music

If performance is the interpretation and presentation of images and emotions using the language of music, how is it achieved?

How do we read and understand the language?

I read with fascination Professor Anthony Storrs definitive work on “Music and the Mind,” which explains with academic precision and a multitude of evidence, what is so evident to me.

Music is language, like poetry. It uses rhythm, pitch volume, shape of sound, tone of voice and many other “human variables”.

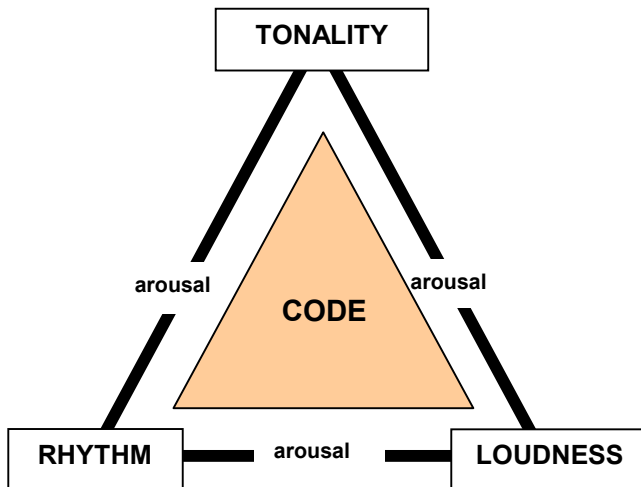
Compare computer generated speech to human speech, both contain all the words but the computer is unable to transmit emotion, it does not add any sense.

Konstantin Igumnov, student of Pabst and Director of the Moscow Conservatoire between 1924-29, told his students when he was appointed professor of piano in 1899.

“I want your music to sound like poetry”

Having thought about this concept I have simplified it into another triangle which I call the “language of music” .

Language of Music



This triangle has three fundamental elements used to arouse the memory and emotions of the audience, these are;

Rhythm, Loudness and Tonality.

Given these, we are still left with the problem of decoding the contents. Just how do they combine?

In the words of Hans Von Bulow

“First there was rhythm”

The first rhythm we ever hear is the beat of our mother’s heart. In musical terms this is a neutral rhythm in the order of 64-68 b.p.m, in a single beat pattern. Deviations above and below this level, and changes to the pattern of beats, convey arousal, relaxation and depression.

Rhythm contains much more than a mechanical pattern of beats. The overall pace, and changes of pace of the work and the micro timing or breathing between words to create phrases and passage, are also part of the rhythm of the language of music.

Essentially rhythm may be considered as the gaps in between the notes.

The main effect of rhythm is its contribution to the physical images; marching, dancing, water, wind and thunder. The list is endless.

A fundamental part of rhythm in piano performance is its contribution to the separation and prioritization of individual voices, a controversial subject, as it strikes at the heart of the difference between old and “new formula” style of performance.

In the “new formula”, any delay between the hands was banned as un-Christian. This mindless rule is like saying one must converse in exact synchronicity, no anticipation, no reflective pauses no breathing; no sense!

The language of music expresses emotion by use of tonality – understanding this code is the key to performance and therapy.

Loudness is an attribute associated with Rhythm and Tonality, it emphasizes their effects. We speak or whisper or shout. Both loudness and softness can emphasize or accentuate the meaning of a word or phrase.

No absolute values can be attributed to rhythm, loudness or tonality. All three elements are relative and their associations have few set rules, but their combination results in the “language of music”

While it may be possible to create a framework of rules for change of pace and volume, rules are of no value unless they are associated with a “meaning” or an emotional objective.

Why play louder or softer? Why slow down or speed up? Why change tonality.

“This meaning is in the final part of the jigsaw and may be considered the code of performance.”

Chapter 4

The Code of Performance

“What is the code of performance?”

To discover this we need to start in the early baroque period and the “Doctrine of Affections”, a theory that arose to define musical methods and means for portraying individual emotional states of the soul. In the Baroque period, happiness would be aroused through the use of faster notes and major sonorities, sadness through minor keys and slower movement, anger through loudness and harsh harmonies.

The states of the soul were perceived to be, rage, excitement, wonder, contemplation, grandeur etc.

At this time the composers were trying to represent the affections in a religious sense, rather than to express personal feelings. The church was still in control!

Each composition was intended to have a specific emotional effect. This mono emotional concept was pre-romantic.

The door to the future classical and romantic music was opened by Johann Sebastian Bach with his definitive study of tonality “Well Tempered Clavier”;

“Das wohltemperirte Klavier oder praeludia und fugen durch alle tone und semitonia sowohl tertiam majorem oder Ut Re Mi anlangend, als auch tertiam minorem oder Re Mi Fa betreffend”.

The term tempering, derives from the concept of “metal tempering”, which changes the states of metals. The terms sharp and flat (originally blunt) are directly derived from this.

This work of Bach, often referred to as “the bible” on tonality, effectively established the modern 12 tone system out of the previous 7 + 7 tone system.

Johan Sebastian developed the “doctrine of affection” into the “*wohltemerirte*” (full

moods not “well tempered”!) This opened the door for music to express all of human feelings and ideas.

In representing this background information here, I am demonstrating my observation, that tonality represents relative emotional values, has a historic basis.

The scale of relative emotions is represented by the scale of key signatures which are graduated in accordance to the number of sharps or flats in the scale I call this simple and self evident concept the “Code of Performance”.

The “neutral” feature of C major and A minor is caused by the absence of sharps or flats in their scales i.e. all white notes.

There may also be something physical in the purity of the mathematical value of C. In standard pitch it is defined as 256 vibrations a second - a function of 2!

The emotional effects of major and minor scales, increase and decrease in relation to the numbers of their sharps or flats.

“Code of Performance”

	EMOTION NEGATIVE		EMOTION POSITIVE		
-6	bbbbbb	G_b = F_#	#####		+6
-5	bbbbb	D_b	B	####	+5
-4	bbbb	A_b	E	###	+4
-3	bbb	E_b MAJOR	A	##	+3
-2	bb	B_b	D	#	+2
-1	b	F	G		+1
0		A C			0
-1	b	D	E	#	+1
-2	bb	G	B	##	+2
-3	bbb	C MINOR	F_#	###	+3
-4	bbbb	F	C_#	####	+4
-5	bbbbb	A_b	G_#	#####	+5
-6	bbbbbb	E_b = D_#	#####		+6

Peak effect being 6 sharps or flats, at this point a “mood swap” is possible as the “sound” is the same and belongs to two opposing mood scales.

There is a subjective difference between major and minor keys that may be expressed as; light and shade, male and female, ying and yang.

So this view of tonality I believe is the “**code of performance**”. It is a continuing spiral somewhat like the helix of DNA.

The link between tonality, emotional feeling and their associated memories can be demonstrated but has yet to be explained in terms of brain process.

Chapter 5

The Art and Science of Performance and Therapy (Using the Triangle)

Virtually all “classical music” was the popular music in its time. The objective of performance was and still should be, entertainment, the giving of pleasure! How else to achieve popular success?

This reactionary aim is a long way from the image of many cultural “terrorists” who claim high philosophical and esoteric ideals and who’s catch phrase is –

“you don’t understand.”

If one reads of the performances of the legendary historic pianists we know they were adored by their public.

What are the secrets of the old “classical piano” pop stars? We have the same music, the same instrument, but massive technical advantages, but still no-one achieves their star status.

They were showmen who seduced their audience by use of popular repertoire, in their own style.

The reason why we perform appears to lie in the pleasure we mirror from our audience. The audience is convinced if they believe a performer is sharing their feelings, creating a powerful loop of shared pleasure.

The actual stimulation of pleasure in performance is linked to the mirror neurons (discovered in 1996 by a team from the University of Parma) with which we can map and understand the actions of other humans (not robots).

“The process is an automatic, unconscious motor stimulation enabling the observer to use his or her resources to penetrate the world of the other”.

These mirror neurons appear to be essential to learning and understanding and are linked to the mechanism of pleasure itself.

It has been proven that, mirror neurons are excited more when the subject knows the object behaviour. This is a very strong

indicator that, in musical terms, familiar or predictable music gives greater pleasure.

I deliberately avoid description of the full chemistry and processes, firstly, because it is complex and secondly it is at the edge of ongoing research.

Scientific studies have been made to identify the effects of music on the human condition. Unfortunately the choice of music and performers, may not have been too carefully considered. The biggest success attributed to Mozart was stress reduction in rats.

If we wish to achieve more than stress reduction – it is necessary to use music and its imagery to create more than relaxing memories, we need to stimulate feelings.

To be successful, musical performance is dependent on both the music and the way it is played.

Therapy with music is one type of performance with a specific audience with specific objectives. It follows that if we don't understand the mechanism of simple

performance, we are unable to achieve success in its more refined, therapy form.

The general objectives of therapy are the same as any other performance – to assist in making the subjects feel better. This is achieved by stimulation of the brain's pleasure centers to release dopamine.

At the current level of knowledge it is not possible to understand the full spectrum of pleasures and their associations with music.

What is abundantly clear is that the transmission of musical messages requires a human interface – music is a language and therefore the messages need a transmitter and receivers, and it is self evident that the images are of value only if the performer transmits with conviction.

The most popular and effective performance is likely to be achieved by the creation of commonly understandable, simple and pleasurable images.

The concepts of memory, images, consciousness and arousal are not fully understood, but current thinking indicates that “a memory” is dispersed to neurons in several

parts of the brain. These each contain different elements of the memory; colour, emotions, shape, sound, smell etc and a consciousness level. When I use the term “image” associated with musical performance – I mean all or parts of the audience/subject memories. Memory is, in one sense, a distributed “experiences” database which music may selectively interrogate by stimulation. The audience will all individually experience different types of image. My own experience is that romantic repertoire is most powerful when it is performed, as it was written, with physical images and associated emotions.

Therapy requires a more careful approach and interpretive skills – if a specific malfunction is being treated. If music stimulates memory, it must be the right music for the right memory.

How does one select works for performance and therapy? Is it primarily rhythm or tonality or something as vague, as image content?

A musical work – like any artistic creation will contain images joined by ideas. Some works are very easy to understand at a general level if they were commissioned for events, or named by the composer, or have associated poetry that inspired the work i.e. a programme.

To fully understand the details of a work I create its emotional map by tracing the tonality variations between -6 and +6 throughout the work and its voices. This map, allows me to understand when ideas change or are exchanged.

But this emotional map is only part of the story, the framework. The next understanding is the revelation of physical images, described by the rhythmic elements – dances, marches, wind, rain, horses trotting, fishes swimming. This is a subjective interpretive step but the conviction of the interpreter is essential to future reproduction of the images.

From this map of physical images and emotional changes, I then summon up from my own experience, a series of “memory images” which are evoked by the images and emotions revealed in the work.

Interestingly enough the mental act of learning the score is reinforced and more efficient if my “memory images” are used as part of the process.

In baroque works that tend to be repetitive, it is useful to use religious imagery to differentiate the subtle variations.

With romantic works it is an easier more and more rewarding process. I use real life images, which might be described as musical cinema.

At concerts, we have all experienced and watched others urgently reading the program notes in a desperate search for explanation and meanings.

These program notes are often as meaningless as the performance, and the audience does not understand, and is not entertained!

Therapy is no different, in most common therapy situations – children with autism or ADD – I find that the description of what the music represents, is essential for the subject, but this must be reinforced by a believable demonstration.

The first trick is to capture attention, then to try and maintain the dialogue. Is this so different for any other audience?

To help stimulate the audience's images it is best to describe your own images and then think of them or “act” them while you play.

The audience can then summon up their own version of your image, in a mutual mirroring, a shared emotional act which releases dopamine, giving pleasure.

Clearly, this is very difficult to do while reading a score, so it is self-evident that this process is a creative act after learning the score.

To achieve best performance it is necessary to have a balanced triangle, the performer operating within comfortable limits of their physical and mental skills. It is the images that matter – not virtuosity. The greatest virtuosos achieved much of their popularity using very simple works.

When 600 people leap to their feet and shout when you finish playing a classical work –

“you know you have found the dopamine”

The pleasure of a spontaneous event like this lasts a long time and may be enjoyed again, and again by remembering the event.

I am very conscious that there is much I don't understand – but I am equally sure I am on the right path.

I enjoy my music – and I play for the enjoyment of my audience.

Advances in understanding of the functional neuro-chemistry of the human brain, begin to shed light on the mystery of artistic performance.

The role of the mirror neurones seems to offer a mechanism to explain performance “rewarding” the audience with pleasure.

As a pianist who wanted to be an actress, I naturally play stories and images to stimulate my audience, a technique that caused me to suffer constant criticism from my conservatoire professors.

How sweet to realise that the emotionless, even athletic “velocity” style of performance, so favoured by the “musical establishment” does not accord with criteria revealed by current research into performance.

How fascinating to realise that Therapy and Performance are two sides of the same coin.

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