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### **New Paradigms in the Actor's Training – Awareness**

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**Abstract:** The present paper describes the process of going through a pilot research phase, intuitive and scientific, from the desire to know what do we express in our corporality when we feel, empathize or play with the imaginary, especially in vocational area of actor's training. This was done by working with the actor and Professor PhD András Hatházi, within a theatrical laboratory attended by the actor-students of the Hungarian Department, 2016-2019 promotion from the Babes-Bolyai University, Faculty of Theatre and Film, Cluj-Napoca. The objective of this research was given by the axiology emotion/feelings of emotion; heart/emotional system and brain/mind. Because the social, political, anthropological, and sentimental dimension of the human body has increased, so have the demands on the actors. As practitioners, we felt it necessary for the contemporary actor's training to benefit from recent scientific observations about the bio-psycho-neuro-physiological processes of the living body, that is why the research has also evolved towards developing exercises to add new information to potentiate acting skills, at an imaginary-corporal level, as well as to achieve balanced parameters in terms of mental, emotional and physical health and integrity, especially post-acting.

**Key words:** awareness, HeartMath, coherence, training, actor.

In a study realized by The Academy of Music and Theatre in Lithuania with the title: *Thinking Body: Acting Systems' Analysis and Integration in the Process of the Work of a Contemporary Actor*<sup>1</sup>, there were investigated the

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<sup>1</sup> Vainoras, A, Sendzikaite, E., Joffe, R., Grabstaite, V. , Baleviciute, R., Telksnys, T., *Evaluation of the Cardiovascular Indicators of future Actors with Different Psycho-*

## THEATRICAL COLLOQUIA

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characteristics of student-actor dynamics through cardiovascular indices (the parameters of the regulatory system and that of the heart metabolism), during their exposure to different psycho-emotional issues and their approach to comic, dramatic and tragic genres. As a result of this study, it was found that the parameters mentioned above change depending on the type of dramatic circumstances approached, concluding that there is a cause-effect relationship between the actor's body reactions and the roles they perform. More simply, the actor's body goes through important imbalances when experiencing a wide range of emotions. In other words, the performer is exposed to high stress. And the measured parameters did not return to normal neither during post-performance relaxation exercises.

“The problem occurs after the performance when even after the relaxation exercises the organism does not return to its normal condition... Thus, the effect at least on the actors is not therapeutic at all.”<sup>2</sup>

In the pilot study made by The Faculty of Theatre and Film at the Babes-Bolyai University in Cluj-Napoca, we tried to lean on a synthetic update concerning the symptomatology of the corporeal in Maurice Merleau Ponty's approach<sup>3</sup>, as well as in that of a morphology of internal physical actions, in the sense of Lessing's idea in which he identifies the action as a struggle of passions<sup>4</sup> unloaded into a succession of different thoughts that cancel each other. What happens with the body during these reliefs? How do they affect us? What do we corporealize more precisely? It is already known that most bio-psycho-neuro-physiological conditions alter their condition irrespective of the fictional or real nature of the situation, as neurosciences

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*Emotional Status Performing Dramatic, Comic and Tragic Roles as well as Relaxation Exercises in Acting reconsidered – new approaches to actor's work*, Lithuanian Academy of Music and Theatre, Vilnius, 2014, p. 23

<sup>2</sup> *Ibidem*

<sup>3</sup> Merleau Ponty, Maurice, *Phenomenology of perception*, Routledge Classics, Londra&New York, 2002

<sup>4</sup> Roach R., Joseph, *The player's passion: Studies in the science of acting*, University of Michigan Press, SUA, 1993

## THEATRICAL COLLOQUIA

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have shown us that kinesthetic empathy, emotion and imagination engage the same neural pathways as a bio-physical response, even if the stimuli are fictional or belong to life situations in everyday reality.

It is no longer news that the human brain benefits among many other things from a phenomenon called neuroplasticity, and this phenomenon is found in all neural networks, regardless their positioning in the body.<sup>5</sup> The most important operations that are of interest to us in this phenomenon are neuroimaging studies that show that neural networks can learn other behaviours according to their experiences and that they are not rigid or fixed throughout our lives.<sup>6</sup> Obviously, for learning a new behaviour, it is necessary to have a certain quality of attention. A recent study<sup>7</sup> to evaluate a meditation technique notes that it can be defined as a mental form of training that aims to improve the individual's fundamental psychological abilities, such as cognitive attention and emotion management. We are talking about a certain form of meditation that is closely related to our research on the effects of emotions on decision makers and implicitly on the body, namely *mindfulness meditation* – a kind of meditation based on attention (awareness) without involving the analyses of moment-to-moment experiences. This type of meditation is based on the mind's attention, the tempering of reactivity to external stimuli, and the (dis)identification / detachment of the construct of self-image as a stand-alone entity following imaginative scenarios. Meditation describes practices that regulate attention in relation to immediate experiences, thoughts, emotions, posture of the body or its sensations. It has proven its necessity in disciplining and tempering the involuntary responses at the

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<sup>5</sup> Cf. Armour, J., and Ardell, J., eds. *Neurocardiology*. New York: Oxford University Press, 1984, in Childre, Doc, Martin, Howard, *The Heart Math Solution*, Harper Collins Publishers, San Francisco, 1999, pag. 10.

<sup>6</sup> Schaffer, Joyce, *Neuroplasticity and Clinical Practice: Building Brain Power for Health*, online article, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4960264/>, accessed on 17.10.2018.

<sup>7</sup> Tang, Y.Y., Holzel, B.K., Posner, M.I., *The neuroscience of mindfulness meditation*, in Nature Reviews Neuroscience, AOP, published online on 18.03.2015; DOI: 101038/nrn3916

## THEATRICAL COLLOQUIA

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reception level towards external factors of the human subject as well as to the interoceptive reactivities.

It is said<sup>8</sup> that energy follows attention and that irrespective of the bivalent content of the object of attention, energy doesn't know or is not influenced by the moral value judgment, it does not rationally distinguish "yes" from "no", for it there is only "yes". We were interested in how we can build meta-attention. Of course, that meant to try to understand what it is. And specialized studies tell us that there are three subdivisions of it: "... alerting (readiness in preparation for an impending stimulus, which includes tonic effects that result from spending time on a task (vigilance) and phasic effects that are due to brain changes induced by warning signals or targets); orienting (the selection of specific monitoring from multiple sensory stimuli); and conflict monitoring (monitoring and resolution of conflict between computations in different neural areas, also referred as executive attention)."<sup>9</sup> Other types of awareness are given by the different combinations of the three, the combination of sustained awareness being the one studied and which we found to be the closest to the needs of student-actors. It decomposes into continuous vigilance during long-term tasks and may even involve tonic or indicative alert.

If we were to discuss the effects of meditation on awareness, we would appeal to studies that demonstrate that:

“1. 5 days (20 min per day) of integrative body-mind training (IBMT) led to improved conflict monitoring.

2. 3 months of mindfulness training improved tonic alertness (the ability to remain alert over time) and allowed for improved orienting towards a visual target in comparison to controls.”<sup>10</sup>

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<sup>8</sup> Braden, Gregg, *Divine Matrix: Bridging Time, Space, Miracles and Belief*, Hay House, California, SUA, January 2008

<sup>9</sup> Tang, Y.Y., Holzel, B.K., Posner, M.I., *The neuroscience of mindfulness meditation*, in Nature Reviews Neuroscience, AOP, published online on 18.03.2015; DOI: 101038/nrn3916

<sup>10</sup> *Ibidem*

## THEATRICAL COLLOQUIA

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Another expected effect for which we called on borrowing this kind of awareness training was to increase the students' ability to consciously manage their feelings of emotion, the aim being to reduce the interference of disagreeable stimuli and to reduce the physiological reactivity to these stimuli in order to facilitate a rapid, instant return to a state of neutrality following a filmic stress, thus potentiating the student's ability to access cognitive control, thus changing their attitudinal paradigms to the content of the stimuli. Also, through this type of training, it is aimed to potentiate the human system to rewrite spontaneous habits related to internal reactions to emotions belonging to oneself or to the stage partner. Contrary to many acting methods that require both student actors and professional actors to increase the rate of spontaneous reaction to the emotional stimuli of the partner, we believe that in order to achieve this in a psycho-physiologically functional way, in order to avoid the cascade effects of the stress – of the deficient emotions, which can sabotage the authorial intentions of the student actor –, it is necessary to go through the inverse course in the initiation phase of the training.

As we are in a process of self-discovery, it becomes inevitable for the practitioners to meet some obstacles in understanding, that have the form of self-conditioned fears. The type of meditation involving awareness and its lack of rationality resembles a situation of exposure, like a therapy, because practitioners are heading towards their own emotional experience, bringing a physical response of affective acceptance, and refraining from engaging in internal reactivity to it.

We want the student-actors to be able to control the automatic reactivities generated by their cultural experience and to engage in other kinds of responses that align with the imaginative, authentic act of the moment's attention. According to Buddhist philosophy, the process of identifying with static concepts and images of self can cause psychological exhaustion.<sup>11</sup> But by disidentification with these fixed images of the self, there can result more sincere experiences, which denotes a freedom of the existence of the being.

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<sup>11</sup> *Ibidem*

## THEATRICAL COLLOQUIA

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By building meta-awareness, awareness to awareness, it is believed that the meditative training facilitates an advancement of the process of identifying the self-image with the static entity and the transition to identifying the phenomena experienced by the self.

Last but not the least, we were interested in the relationship between this kind of training and the development of the abilities of those targeted to reduce the effects of stress. We know that the human brain can be a permanent target of stress and hormonal stress-related conditions. It is remodelling structurally to adapt to circumstantial stress-related conditions that endanger the living system, but under the imaginative, continual interference of alarm signals that involve continuous stress, the system can be endangered and suffer pathologies. Evidence<sup>12</sup> tells us that our vulnerability to induced stress, the plasticity of the brain becomes more prominent in the prefrontal cortex, hippocampus, amygdalae and other areas associated with fear-related affective memory. And the imagistic evidence of interactions occurring between these areas can give us information about the effective or poor quality of adaptation to life situations or the deterioration of mental systems and the integrity of the physical system. This type of training captures the strategy of preventing and intervention of the natural human system of treating from incipient phases, the stress stimuli. This process is accomplished by enhancing self-regulatory systems that facilitate neuroplasticity in the brain by allowing the system to enter integrity stages of a prosperous state of health. It has also come to the conclusion that meditation through awareness without rationality prevents the parasympathetic system from engaging, for any type of fictitious scenario, in the response system - fight or flight - to various stimuli with potential for stress.

According to the theory outlined above, when we refer to *awareness*, we think about a recognition and self-knowledge of the organic needs and the selection of the means for looking for satisfaction, the ability to judge, to imagine, to differentiate, to generalize, to abstract, and last but not the least, the ability to observe interdependent relations between the impulses of the

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<sup>12</sup> Childre, Doc, Martin, Howard, *The Hearthmath® Solution*, Harper One, 2000, New York

## THEATRICAL COLLOQUIA

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issues above and their origins, which gives man the ability to govern his life through conscious choices.

From this point on, all exercises will be under the practical auspices of imagining while acting. All the stages of this exercise require a conscious adaptation of breathing to the movement register that actor-students are invited to go through. We suggest that every training session will end with a specific exercise adapted after one of the exercises proposed by the Institute of HeartMath:

1. Each student chooses a place in the rehearsal room.
2. Attention moves volitionally in the heart zone.
3. There is recalled a feeling of appreciation or love for someone who is easy to provoke this feeling. Then they try to sustain the feeling, for the beginning: 2-3 minutes with gradual extension to 10-15 minutes.
4. In a controlled emission, through leading the awareness step by step, the feelings of love, care and appreciation for one's own self, for the mates in the room, or for somebody chosen by the student-actor are spread.
5. If attention is removed from the task of the initial intention, the exercise is resumed by simply moving attention to the heart zone with conscious breathing. Observing this zone is intended to relieve the chest zone.
6. Once the exercise is over, the student-actors are invited, if they wish, to write down any feeling, intuition or thought they have become aware of during the exercise.<sup>13</sup>

### Coherence charts

In order to demonstrate the need for increased attention in the actor's training, we have decided to make a study that attempts to observe the variability of heart rate to demonstrate the bio-physiological phases through which the actor goes during the artistic act. Thus, the present paper aims to describe a set of parameters used and observed during monitoring the student-

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<sup>13</sup> This exercise was adapted from a proposal of IHM, Childre, Doc, Martin, Howard, *The Heartmath® Solution*, Harper One, 2000, New York, p. 211

## THEATRICAL COLLOQUIA

actors with EmWave–Pro, in order to find some working methods with the actor, that can provide him bio-physical instruments that will increase his interceptive attention during the artistic act.

According to IHM<sup>14</sup>, the physiological coherence of the heart refers to a specific state that reflects stability and harmony in the upper brain control zones; an increased synchronization between the heart and the brain as well as in the activities in the two branches of the autonomic nervous system (ANS); as well as a transformation of the autonomous equilibrium towards an exponential improvement of parasympathetic activity. This physiological state is also called by them the coherence of the heart, because the heart is the essential element responsible for the construction of this state.

The physiological coherence of the heart can be measured by **Heart Rate Variability (HRV)**. This parameter refers to variations that occur between the heartbeats. This variation, from beat to beat, is reflected in the heart rate. Researchers have observed that these rhythms tend to repeat themselves. And as we explained in the first part of this paper, the heart and the brain communicate through the ANS.

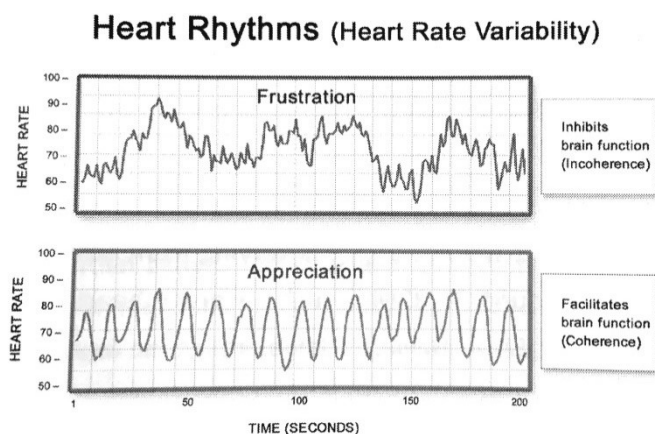


Fig.1 Heart Rate Variability IHM©®

<sup>14</sup> McCraty, Rollin, *Heart-Brain Neurodynamics: The Making of Emotions*, published in the USA by Institute of Heart Maths, DOI: 10.12744/tnpt(6)068-089, 2003.



## THEATRICAL COLLOQUIA

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The image above belongs to the Institute of Heart Maths and shows us HRV captured from a coherent physiological system and from an incoherent one.

Below we will describe the methodology for using the EmWave Pro and then illustrate with 5 charts resulting from the measurements. The study involved 15 students of the Hungarian Theatre Department at the Faculty of Theatre and Film, Babeş-Bolyai University, Cluj Napoca, aged 19-21.

Subjects were asked to perform during three semesters different exercises, the purpose of which was the conscious engagement of sensorial and emotional attention in the exploration of different interoceptive targets, then of some from immediate proximity, but with the requirement to pass them through the internal body awareness filter.

The research protocol consisted of five types of sessions for each subject, by monitoring with EmWave-Pro. The sessions consisted of measuring intervals of one minute at the beginning - without any request from the subjects, then of 3-5 minutes - by asking for conscious breathing, and the last session consisted of measurements of varying duration between 5-15 minutes while they were improvising with a single partner.

Then followed two sessions that consisted of variable intervals of 5-10 minutes for observing the subjects' ability to sustain coherently a feeling of emotion for a long period of time and also to see if the charts point out any fluctuations.

The last two sessions consisted in monitoring subjects at physical rest, while watching their colleagues performing. While watching, subjects were asked to put down on a sheet of paper every emotional change they detected, as well as the minute when the awareness generated by the active colleagues takes place, in order to compare the individual perception with the data recorded by the device.

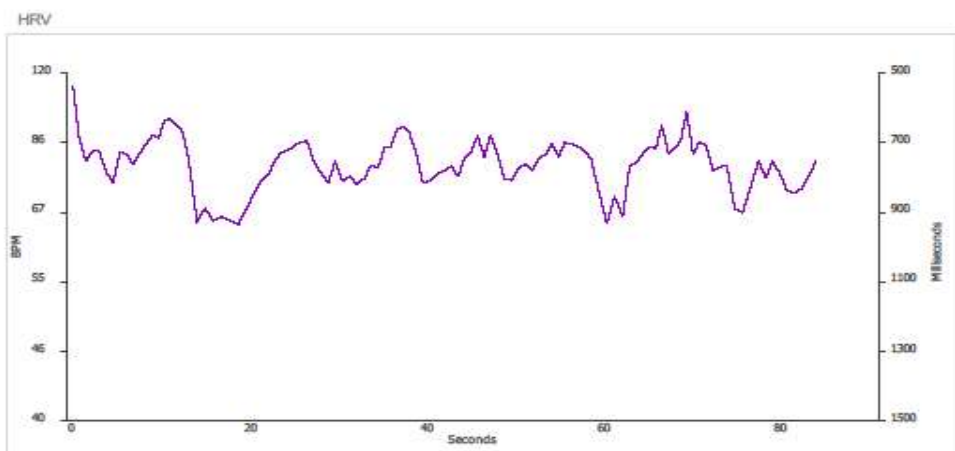
Examples of charts:

## THEATRICAL COLLOQUIA

### HRV Assessment

Name ██████████  
 Gender Male  
 Age 19

Date 2017. május 15., hétfő 12:44:45  
 Duration 1:23 Minute

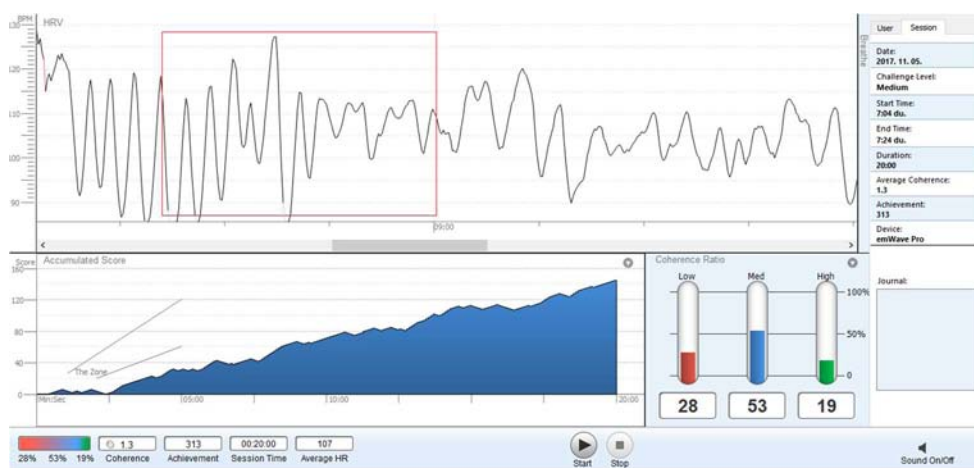


MEASURE	YOUR VALUE	LOG	UNITS
Duration	01:23 (1.4)		Min:Sec (minutes)
Number of R-R Intervals	107		
Mean Heart Rate	79.8		Beats Per Minute (BPM)
Mean Inter Beat Interval	759.4		Milliseconds (ms)
SDNN	75.0		Milliseconds (ms)
RMSSD	52.9	4.0	Milliseconds (ms)
Total Power	1106.8	7.0	milliseconds <sup>2</sup> /Hz
Very Low Frequency	154.5	5.0	milliseconds <sup>2</sup> /Hz
Low Frequency	822.7	6.7	milliseconds <sup>2</sup> /Hz
High Frequency	129.6	4.9	milliseconds <sup>2</sup> /Hz
Low Frequency/High Frequency ratio	6.3	1.8	milliseconds <sup>2</sup> /Hz
Normalized Coherence	58.3		Percent

The chart above represents an HRV monitoring over a period of 60 seconds. According to the subject, his psychophysiological disposition for ante-measurements is relaxed and curious. Therefore, the degree of difficulty selected to inform the EmWave-Pro software regarding the psychophysiological condition of the subject was assessed as **low**. Grades on the left vertical axis measure heart rate per minute. The subject had a strong

## THEATRICAL COLLOQUIA

pulse signal, and the sinusoid drawn inside the chart represents the pattern of heart rhythm manifestation. The ascending side represents an increase in heart rate. By this we understand that a series of heart beats are in acceleration (it means that the duration between the heartbeats decreases). The descending side represents a decrease of heart rate. By this we understand that there is a slowing of heartbeats, which we translate through the depreciation of the time between beats.



In this chart we can find the monitoring of a subject while improvising with a partner. The moment when the system goes from coherence to incoherence (see the information in the red box) is defined by a change in the attitude the subject has chosen to manifest to the partner. An attitude that we can describe by an action verb, namely *to threaten*. And the subject has engaged in this action by constructing a body and language aggression.

A technical detail that needs to be mentioned, because we will pass on the presentation of the results of other charts made during the practice, is related to certain errors recorded by the software of the device. Specifically, because we worked in most cases with moving subjects, due to the sensitivity of the device and the cables between the sensor / pliers placed on the subject's

## THEATRICAL COLLOQUIA

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lobe and the computer, there were times when signal loss has occurred. They are rendered by vertical straight lines, horizontal, ascending, flat or descending lines. In some cases, the measurements were restored, in others they continued because the signal returned.

In the charts of subject-monitoring during improvisations with a partner, an acting exercise was developed based on a training technique developed by Sanford Meisner aimed at issuing an affirmation on the partner's condition or statements that would include partner involvement. Once the first statement is spoken, the rule says that, like in a ping-pong game, the statement is accepted and re-told verbally by the partner according to the following formula:

A: You are tired!

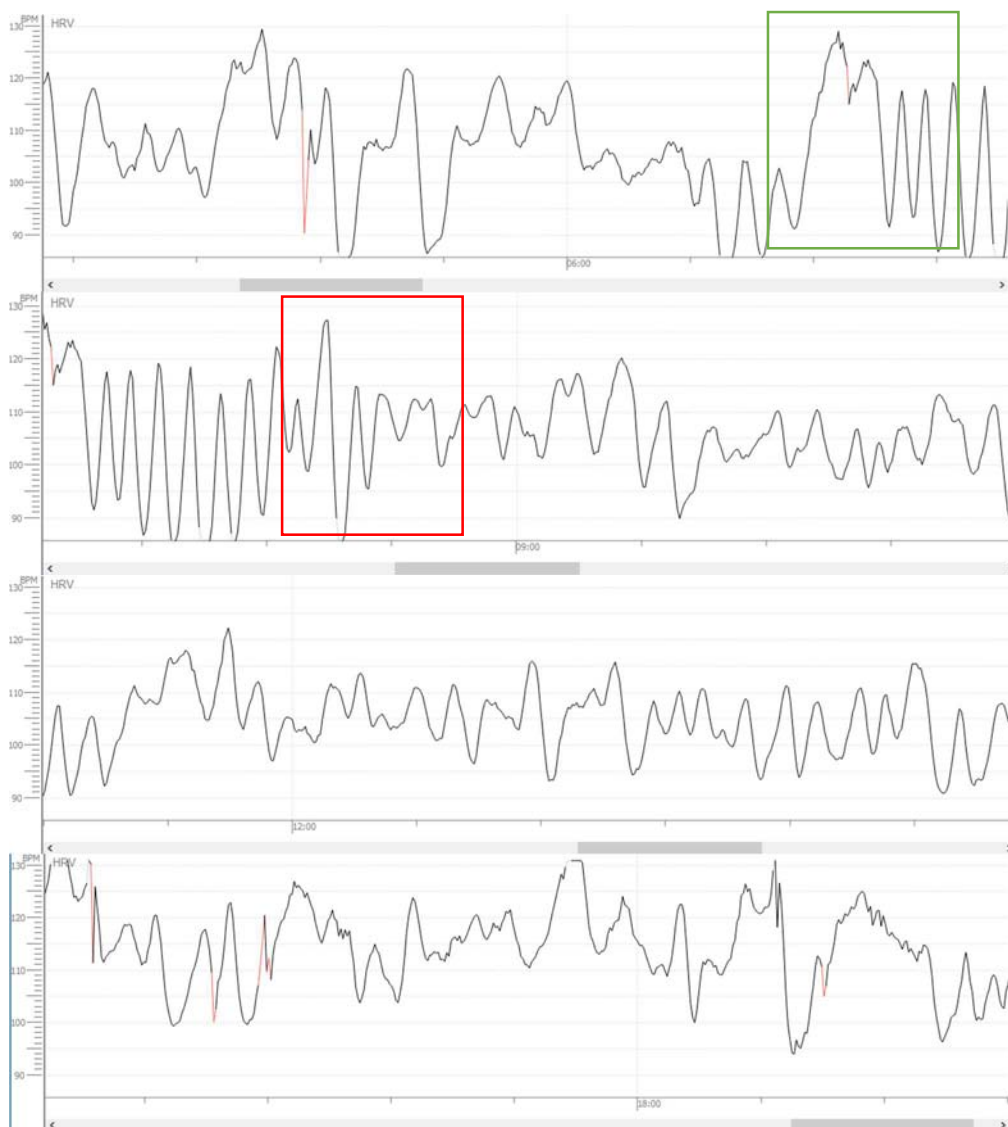
B: Yes, I am tired!

It is important that the exercise does not take place under the auspices of a theatrical interpretation, of the varieties that a subject can load as a subtext in the spoken words, but rather they must function from the body / emotional spontaneous instinct. One of the goals of this exercise is to help actor B to become aware of the interaction between verbal acceptance of the partner's view and their personal reactivity, of a perception of the internal bodily environment. Therefore, only when a strong instinct related to the partner appears, B can in turn make a new statement on the same model presented above. Thus, it is the instinct that changes the dialogue and not only the immediate brain interpretations of the information received.

There was added a prelude to this exercise, respectively an exercise elaborated with Prof. András Hatházi. To facilitate meta-awareness, at first, the subjects spend a few moments, face to face, quietly, breathing consciously and just observing the partner in front of them in the smallest details of visual reading. That is why some charts show in the first few minutes that the male student's/ female student's system is often in a coherent physiological system.

Examples:

## THEATRICAL COLLOQUIA

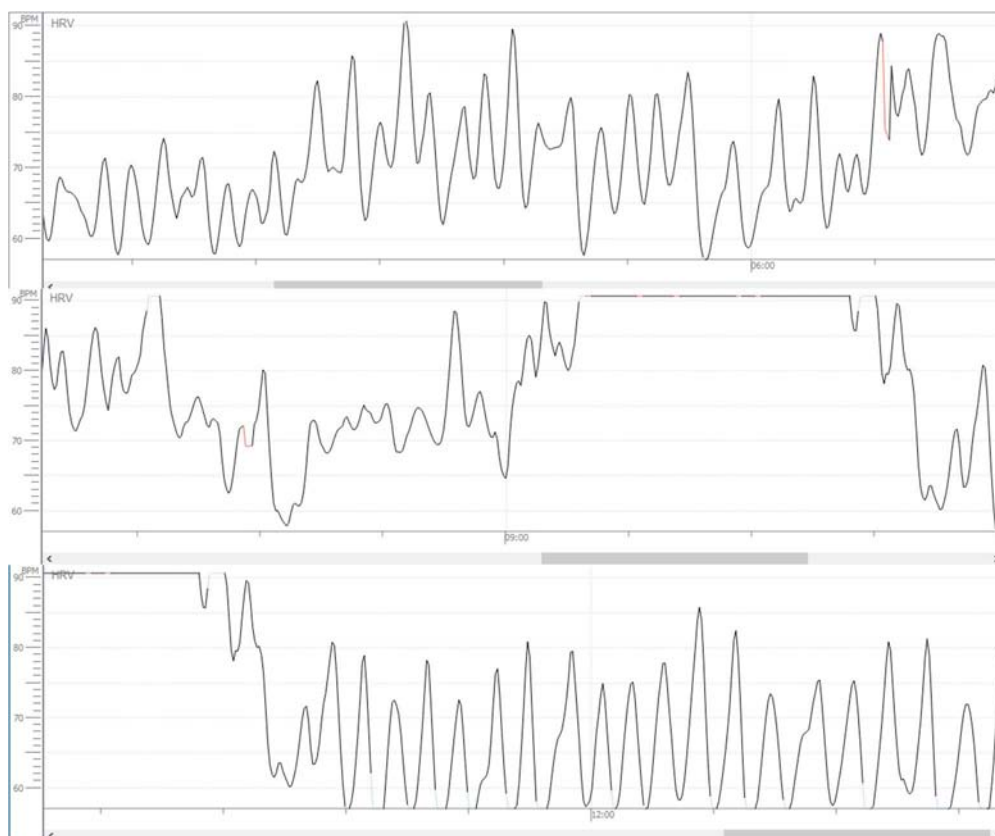


The monitoring of the subject took approximately 20 minutes. From our observations, corroborated with the subsequent discussion with the monitored male student / female student, it was concluded that there were moments during the improvisation when the subject experienced different

## THEATRICAL COLLOQUIA

physical conditions (discomfort, dizziness, or different feelings of emotions), or mental conditions (loss of attention, decisional uncertainty, non-assumed interpretations or even questioning the functionality of the exercise). These moments were captured by the chart through various fluctuations. The green scale on the first chart marks a moment of entering an area of coherence, and the red one entering an area of bio-physical incoherence. From the observer's point of view, the moments of entering into coherence are the moments when the subject has changed their work strategy appealing for a few moments to mental and emotional stress relieving, to conscious breathing, as the subject reported when the exercise ended.

Another set of charts represents monitoring the subject for about 14 minutes.

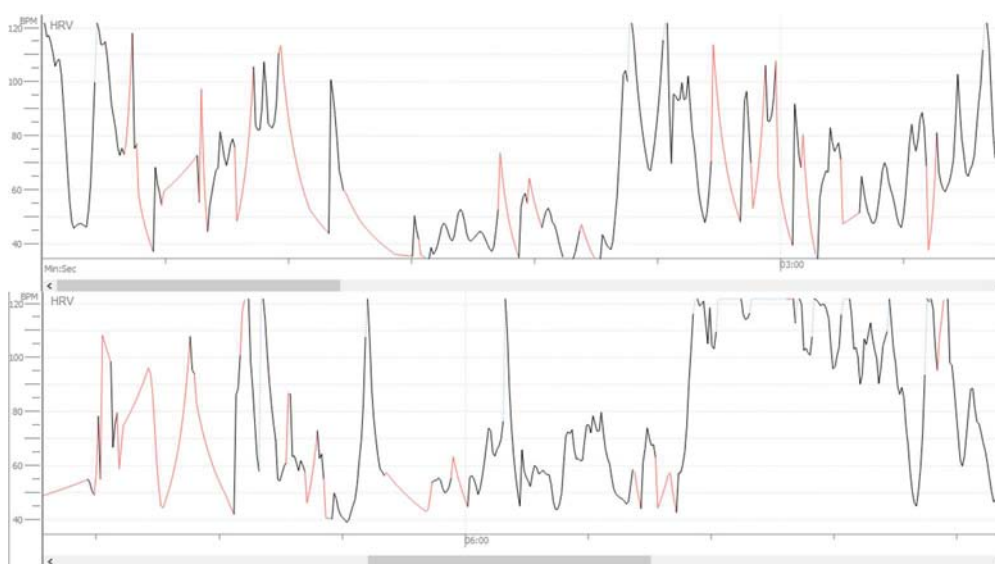


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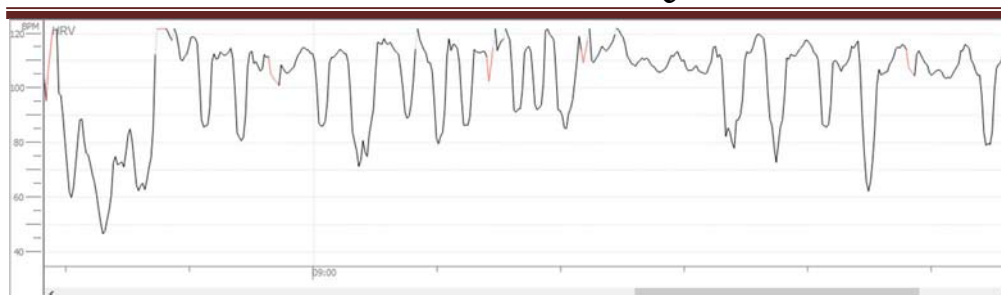
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As it can be seen from the chart reading, there was a signal interruption around the 9<sup>th</sup> minute. Signal loss is also associated with a sudden interruption of the exercise because the subject had a crying reaction resulting from the improvisation. At the time of signal interruption there was a pause in monitoring, and after discussions between the student and the teacher about the exercise, the subject was taken over by the author of the article and coordinated with an exercise developed by IHM, explained above. After a few moments monitoring started again and the student managed to keep his system in parameters of physiological coherence.

The next subject was monitored for about 13 minutes as another kind of chart shows.

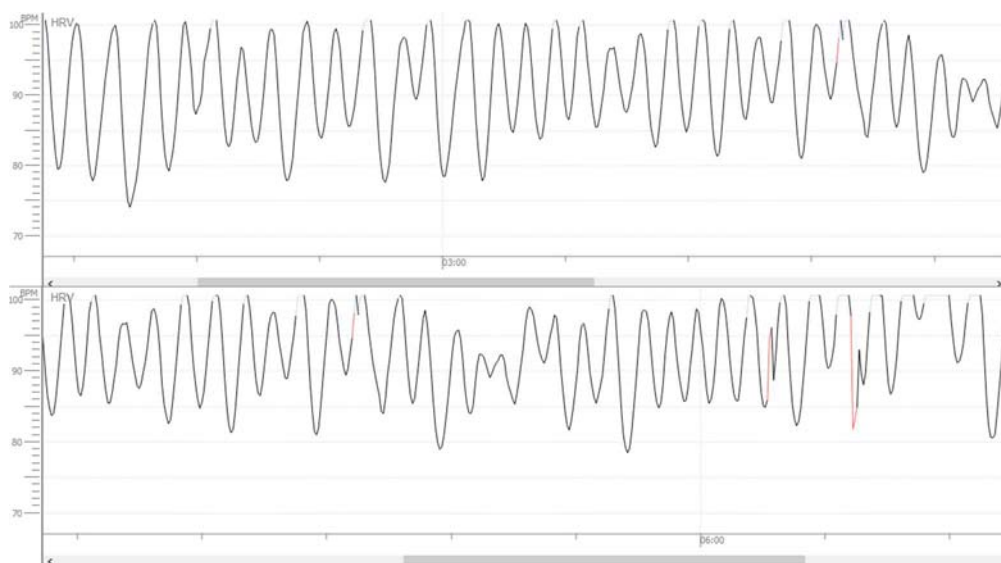


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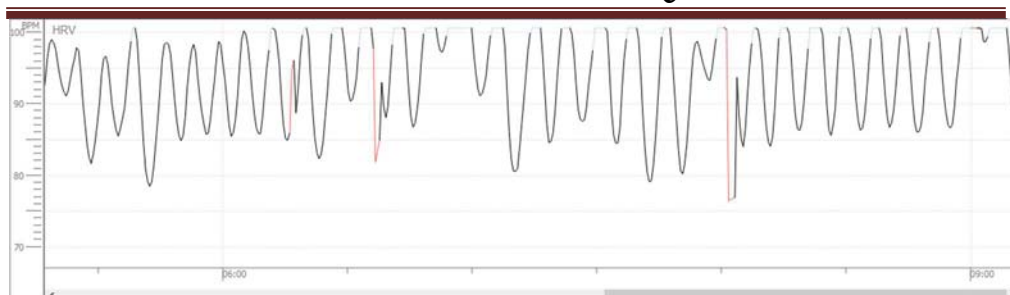
As it can be seen, this measurement was largely doomed to failure due to frequent signal interruptions. However, it can be noticed that the last 5 minutes of the chart show a high degree of stress. From the observations of the person who made the measurements and from the post-exercise discussions with the subject, it was found that at one point he had completely lost control of the exercise and left himself driven by the momentary impulses given by nervous excitement.

With the 9-minute monitoring, the first contradictions occurred if we could call them so.





## THEATRICAL COLLOQUIA



I mention that we have treated this case particularly because the measurements are made on a female subject. I mention this thing because the results were a further reason for a further research especially on the reproduction of data from a study made by Troubleyn Jan Fabre in Antwerp, which took into account differences in functionality of physiological (neurological and motor) parameters between men and women while doing the same type of exercise.<sup>15</sup> As it can be seen on the chart, for approximately the entire duration of the exercise, the female student managed to maintain her system in the parameters of coherence. The first contradictions are given by the fact that during this exercise she discharged various reactions, from calm to aggression. But what is important in this case is the fact that most of the time she had a certain type of presence. In this respect, we consider there are necessary further researches including reproduction of data from studies of The Academy of Theatre and Music in Lithuania, where ECG measurements were done.

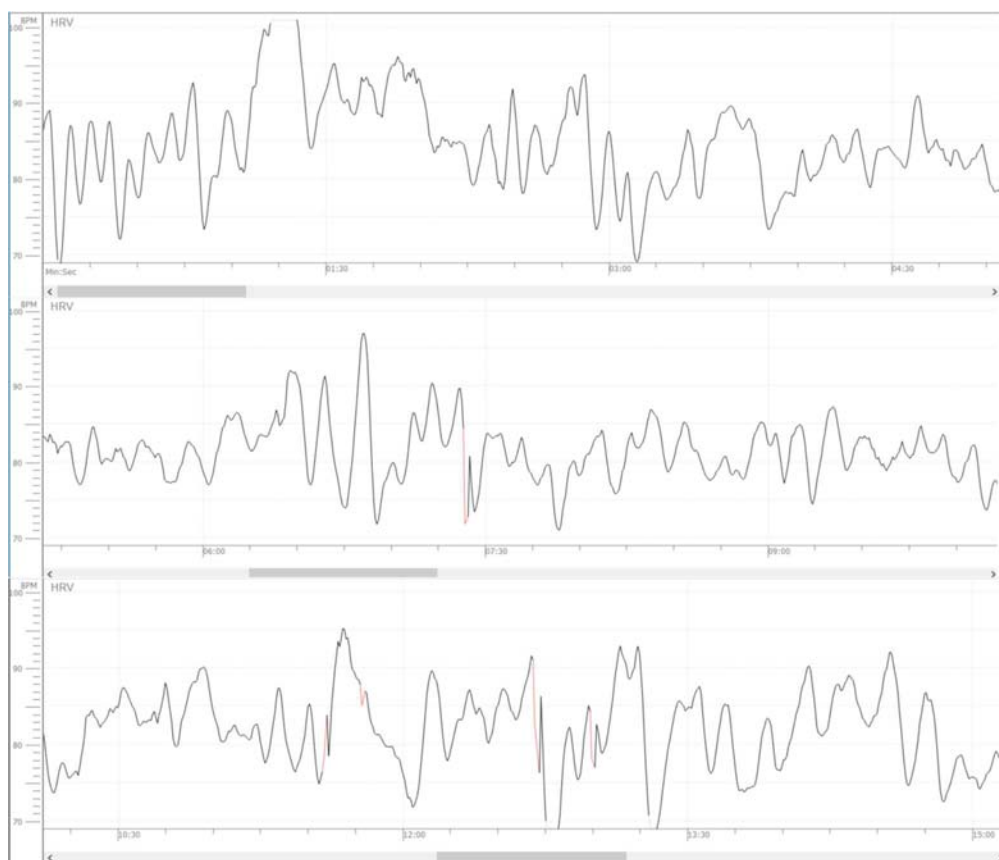
The last chart I would like to present, numbered from S-S5, is rather a study of the spectator. We have been interested in what is happening on the other side, with the spectators, what they corporealize during the act of reception. We are concerned with these questions because apart from the research centre, Cinetic, from Bucharest, which according to our knowledge also deals with this kind of studies, in our country there are no such preoccupations, which are very necessary for the development of different

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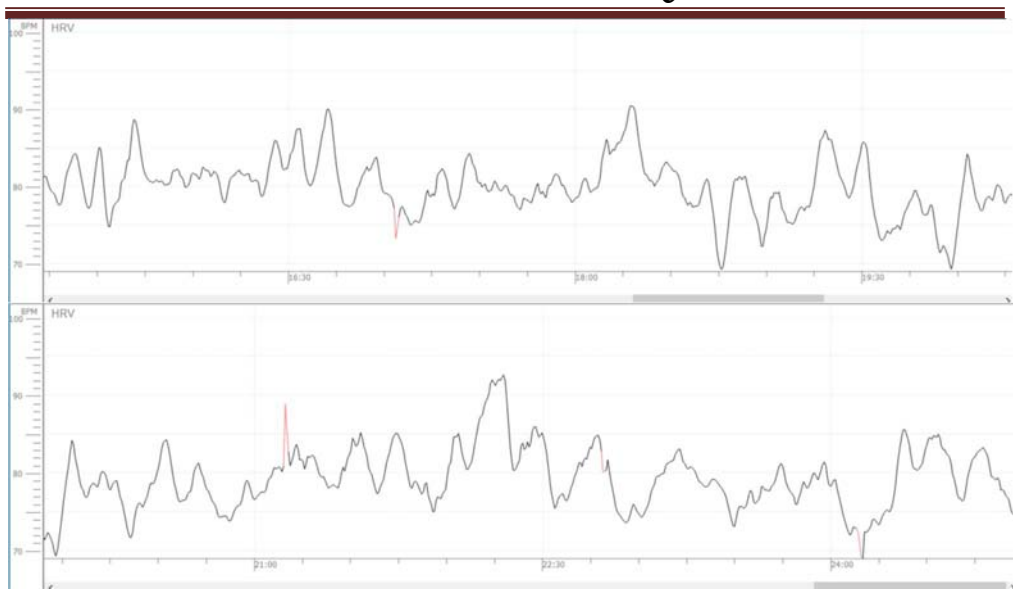
<sup>15</sup> Jacobs, Emmanuel & all, *Do Performers' Experience and Sex Affect Their Performance*, online article, <http://dx.doi.org/10.1123/mc.2016-0002>

## THEATRICAL COLLOQUIA

kinds of actor's training. So, the next subject was taken out of the exercises practiced by his colleagues and was monitored, while he was observing them, for about 25 minutes, while in order to prove and compare with reality certain possible fluctuations, the person was asked to write on a sheet of paper the emotions he felt and the minute of changing the inner condition. Here are the remarks noted by him during the observation:



## THEATRICAL COLLOQUIA



**Minute 4 – Amused; min. 8:11 – curiosity; min. 10:34 – happiness; min. 13:30 – discomfort, sadness; min. 15.30 – disgust; min. 17:45 – curiosity; min. 22 – boredom.**

In the meantime, the students did an exercise from the Jan Fabre method, namely the exercise of cleanliness.<sup>16</sup>

The steps of the exercise:

a) the performer will imagine a lot of dirt on the ground up to the details of its texture and consistency.

b) imaginarily different parts of the body that are invested with different functions are isolated (objects for cleaning), which alternatively change, in performing cleaning actions.

c) the performer constantly provokes himself by the excessive imagination of the dirt that is still coming.

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<sup>16</sup> Jan Fabre, Masterclass – workshop Troubleyn Laboratorium, Anvers, Belgia, 22-27 January 2018.

## THEATRICAL COLLOQUIA

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d) cleanliness becomes obsessive at the level of the speed of movement.

e) the performer is invited not to succumb to the instincts of pain and suffering, but rather to work creatively with them, increasing by investing pleasure in the tasks he has to accomplish.

f) some of the dirt finds place in imagination, sensorial, on the body.

g) when passing the exercise on a vertical plane, the isolated parts of the body are invested with specific tools that interact with a specific surface. The performer is asked to produce the appropriate sound of the interaction of the two.

h) the intensity is increasing, in order to avoid expressing the suffering, it is fighting against the stimulus of abandonment and exhaustion, while preserving the economy of the movement.

i) there can also be added a text that is opposed to the context of the exercise. There can be created an imaginary dialogue with another person, and the text can be impregnated by the rhythms and conditions of organicity resulting from the performer's efforts.

From personal experience, this exercise becomes almost impossible to sustain after the first 5 minutes if the start-up speed is quite high. The body confronts a fierce battle between the neurovegetative impulses of spontaneous abandonment and the performer's will to continue. If we add imaginatively the struggle for attention on the volitional control, we think we can have an image of how those doing this exercise look like, especially if they are beginners.

Looking at the chart, we asked the student whether there were moments in the observations he made, which he can associate with an act of empathy towards his colleagues. His answer was that he empathized with them in moments of amusement, joy or curiosity. The charts showed fluctuations to a coherence score but reduced in duration, before noticing the emotions put on the paper. Which may suggest that the moments before the awareness of feelings of emotion, he may have engaged himself in an act of kinesthetic empathy, and the emotions he felt to be responses to the self-judging reactions

## THEATRICAL COLLOQUIA

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of the students involved in the exercise, to which they spared sporadically due to the loss of energy to support the exercises, both physically and mentally.

The three techniques used by IHM, that we combined with specific actor training exercises, are designed to work cognitively with the help of conscious breathing through continuous self-observation, which draws us closer to a much more neutral biology of the body in terms of value judgment where the energies are rather efficient or deficient, neither good nor bad, thus: conscious control of impulses is facilitated, blood pressure and arrhythmia are adjusted, subjects may benefit from an increased control in the cognitive change of emotions, as well as the psychophysiological discharge produced by their interpretation by the mind through fears / blockages.

**FREEZE FRAME® *HearthMath Institute*:** a five steps technique that potentiates the ability to stop the automatic responses, moment by moment, to the film of the events of the life situations we experience. It helps the practitioner to act from a clearer perspective, reducing the biological effects of stress on the body in the event that captured their attention. This procedure can facilitate the development of intuition coming closer to the conscious.

**CUT-THRU® *HearthMath Institute*:** a six steps technique which helps to recognize and reprogram subconscious emotional memory which, if sedimented for a long time, influences our perceptions, colours our everyday thoughts and feelings and conditions our reactions to future situations. This technique also helps facilitate the decision-maker in the conscious choice of emotions and changes the neurological architecture. It helps release the following emotions: tension, anger, apathy, fatigue, worry, self blame, agitation, blame, pain, suffering, nervousness, depression, feeling of being overwhelmed, sadness, anxiety and fear.

**HEART LOCK-IN® *HearthMath Institute*:** a six steps technique that helps increase attention to sustain a coherent emotion for a longer period of time.

## THEATRICAL COLLOQUIA

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### **Conclusions:**

During practical experiments, we reached different findings, observations and contradictions:

a) at the first measurements made on the students, no imaginative psychophysiological task was required. And almost all of them had at least one value that is out of the range of general parameters specific to their age. We think it is necessary to continue with researches to find out by EKG, ECG, and blood investigations, as well as by psychometric assessments, factors likely to endanger the natural capacity of the system to be coherent. Because we had cases where subjects had medical problems, we consider that in these cases we cannot draw any pertinent conclusions about the proposed training methods.

b) Some students went into exercises with parameters that showed biophysical incoherencies, but while performing they managed to acquire and sustain the balance of internal systems, regardless of whether what they were doing was too difficult from a sentimental point of view, or as a physical effort. When asking what happened to them, they answered that there was a moment when they started to feel good, investing pleasure in the exercise. This observation comes to reinforce the importance of attitudinal quality and the way in which they engage in the tasks they have to carry out.

c) We also found the opposite situation. Some subjects have been enthusiastically involved in exercises and with a high level of coherence, but at one point suddenly the parameters have been reduced to incoherence. Visually, we were able to observe, almost concomitantly with the ongoing chart, the moment when the students were lost during the exercise and failed to carry their task to an end. From the later discussions we understood that they did not find a sustainable way to accomplish their task, but we tend to think that lowering of coherence is rather attributed to individual, spontaneous and negative value of judgments which they spoke about during discussions, invoking peripheral reasons of parasitic personal thoughts (fears), meaning that external stimuli captured their attention.

## THEATRICAL COLLOQUIA

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d) After the first 14 sessions, we found that the time for activating coherence was reduced for almost all student actors, including those who had certain pathological conditions.

In the last two measurement sessions, it was found that for some subjects who either had attention deficit problems or some pathological conditions, there emerged graphical fluctuations that go beyond our ability to interpret results. That is why the present study continues with the extension of the monitoring team by inviting some medical specialists and with monitoring the students with other medical devices for a better understanding of biophysical feedback, and also to improve training methods through pertinent observation of specialists.

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