

Emotional communication as complex phenomenon in musical interpretation. Proposal for a systemic model that promotes a transdisciplinary process of self-formation

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ABSTRACT

For a long time, expressiveness in musical performance was a question of musical performance and research. It was difficult to explain why musicians arouse aesthetic emotions in their listeners with their interpretation. Even so, was more complex to explain why the performance of the same work by various artists provoked different emotional responses in listeners. Thanks to empirical research, our understanding of this phenomenon has improved. However, these theories and discoveries have not permeated teaching practice, so they have not yet taken a new direction in music teaching.

In this paper, we proposed a new approach to expressiveness in musical interpretation in a systemic and complex way. For this, we propose a systemic model that allows us to observe the dynamic behavior of the phenomenon of emotional communication in musical interpretation. Furthermore, we suggest a systemic transdisciplinary didactic proposal to encourage the performer to develop their musical identity, reinforce their sensitivity and creativity, and enrich their expression and participatory intention in interpretation.

Keywords: Emotional communication, Musical performance, Systemic model, and Complexity.

1. INTRODUCTION

The musical performance process is generally observed as a synthesis between the technical and expressive capabilities of the musician. It is believed that the instrumental aspects of the technique are possible to learn, while the expressive aspects are only intuitive [1].

Being expressive or having musicality in musical interpretation is one of the most important aspects for the performer, however, it is considered difficult to achieve [1][2][3]. Many instrument teachers consider that expressiveness cannot be taught and excuse themselves by saying that “there is no formula to play expressively, you have to use your soul” [4].

The communication of emotions in musical performance, due to its importance, should have priority in the forming of performers. However, some studies indicate that music teaching focuses on the development of instrumental technique, and not on expressiveness [5] [6] [7]. Instrumental technique is necessary for a good performance, however, what differentiates performers from each other is their expressiveness [8].

Among the few strategies currently used to teach expressiveness in musical performance are a) the use of expressive models: For example, the teacher's interpretation serves as a model for the student [9]. b) The use of metaphors to evoke a state of mind, that is, focusing on feeling emotions, trusting that these emotions translate into sound properties naturally [10]. c) The indications that teachers make directly about acoustic parameters, which require that the teacher have explicit knowledge about the expression, which is commonly not the case [11].

The project proposal responds to the need to achieve a systemic conceptualization of expressiveness in musical interpretation, where it is conceived as a complex reality, determined by the confluence of multiple factors that interact together. Among them are neurological, psychological, pedagogical, socio-cultural, personal, philosophical, and musical factors. The characteristic properties of expressiveness in the performance of an interpreter arise from the interrelationships of multiple factors and even from the environment in which the interpreter finds himself and with which he interacts. To understand the complexity of expressiveness in musical interpretation it is necessary to do so holistically, without breaking it down into parts, since the interrelationships between the different aspects that give meaning to the whole dissolve in its fragmentation.

The realization of this project required a new approach, as a whole, from complexity. This questions the traditional form of the learning process and the practice of expressiveness in musical performance. A multidimensional and multi-referential way of working was proposed, through transdisciplinary research. In this, new relationships were created between knowledge and theoretical constructs from different disciplines around the

problem of expressiveness in musical interpretation, which offered a complex field of research.

Expressivity in the musical act was studied with a systemic-transdisciplinary perspective, which led us to propose self-formation in a transdisciplinary, reflective, and dialogic way. This is focused on helping the performer in the construction of her own musical identity, reinforcing her sensitivity and creativity, to enrich her expressive intention in musical interpretation.

This project proposes that artistic education in general, and music in particular, take a more humanistic direction, with its methods and procedures. From our point of view, expressiveness, as a phenomenological quality, is a way of being of the person, of perceiving, interpreting, acting, thinking, deciding, and knowing how to provoke.

From this perspective, expressiveness encompasses the entire individual, is part of his musical personality, and is the characteristic hallmark of his performance during the musical act. When interpreting a score, the performer plays according to his way of being, perceiving, feeling, acting, and thinking, within a vital and permanent process of exchange between him and the elements of his environment, which occurs in a temporary alternation of situations determined by actions with himself, with others (the people around him), and with the world.

2. SYSTEMIC APPROACH

In this project, we propose to consider the musical performance or act as a complex system, composed of four members that interact with each other. The behavior of each of these will directly affect the behavior of the musical performance or act, that is, they act as if in a complex system. We call this system the "Performance System".

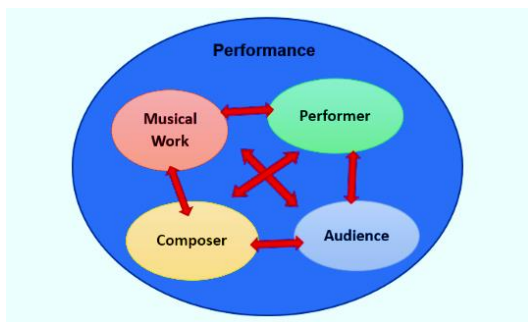


Figure 1. Performance System¹

This diagram represents the *Performance System*, in which the composer, the performer and the audience are interrelated. The behavior of each of them will directly affect the behavior of the musical performance.

One of the characteristics that make the *Performance System* unmistakable and unrepeatable is the musical expressiveness of the performers who participate in it. The decisions that the performer makes about the signs written on the score for their

performance are part of his musical identity, that is, his personality as an artist and his life story.

When interpreting a musical work, the performer plays according to his way of being, perceiving, feeling, acting, and thinking, within a vital and permanent process of exchange between him and the elements of his environment. This occurs in a temporary alternation of situations determined by actions with himself, with others (his environment) and with the world.

We took the perspective of performance theories for the construction of the model because we were interested in knowing how 'making music' allows the performer to build their own musical identity in which expressivity is the characteristic seal of its execution.

The performance system is at the same time part of a larger system, which we call the 'sociocultural system', to which other systems belong.

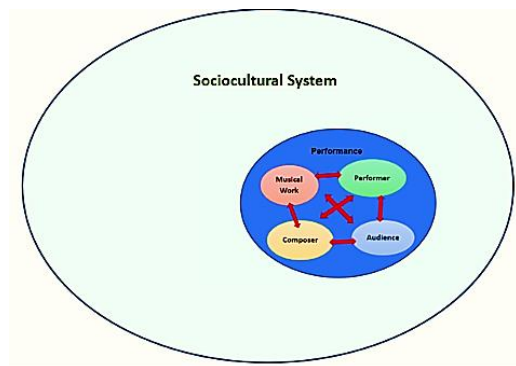


Figure 2. Sociocultural System²

The image shows the *Performance System* as part of a larger system called the *Sociocultural System*.

Systems influence and, in turn, are influenced by the environment. This portion of reality that can affect the system or be affected by it is what is called *the environment of the system* [12].

In the case of the *Performance System*, its environment is composed of the following elements: the family, cultural bodies, educational bodies, the government, the market, cultural norms, ethical and moral principles, financial resources, spaces and artistic venues, critics, producers, religion, the media, consumers, cultural standards, entrepreneurs, and access to monetary resources.

These environmental elements affect the *Performance System*, or they are affected by it.

¹ The researchers of this article created the diagram.

² The researchers of this article created the image.



Figure 3. Elements of the Performance System Environment³

The figure shows the elements of the environment that affect or are affected by the Performance System.

The *Performance System* is composed of subsystems, which in the case of the performer correspond to the different aspects that the human being needs for musical performance. These are biological, psychological, emotional, cognitive, psychosocial, and cultural aspects.

If we apply this way of perceiving the human being directly to the performer of our Performance System, he needs the joint interaction of different aspects, belonging to the human sciences, the social sciences, and the philosophical and artistic disciplines, for his interpretation during the musical act. All these aspects will interact, create a synergy, and emerge spontaneously as part of the artist's musical personality, reflected in his expressiveness during the performance.

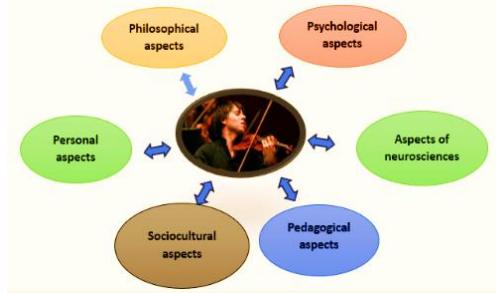


Figure 4. Performer subsystems⁴

We can observe that the subsystems of the performer are the biological, psychological, emotional, cognitive, psychosocial, and cultural aspects.

For the analysis of the project, it was necessary to resort to a holistic and transdisciplinary approach. Therefore, different theoretical constructs from neuroscience, pedagogical, socio-cultural, personal, philosophical, musical, and psychological were considered.

3. SYSTEMIC MODEL OF THE COMMUNICATION OF EMOTIONS IN MUSICAL PERFORMANCE

To analyze the process of expression and communication of emotions in a musical performance that moves the listener and provokes emotional responses of an aesthetic nature, we define a complex performance system, where the composer, the performer, and the audience are elements that interact with each other. To create the model, we define three modules of the performance system: the composer -which includes the works he wrote-, the performer, and the audience. These three modules are interrelated. In addition to the modules, there is a mentor in the system environment which is essential for the multidisciplinary humanistic pedagogical proposal.

Composer Module

In the composer module, there is a production flow of musical works, that accumulates in a repository called the composer's repertoire. This contains all his musical works, the fruit of his creativity and transcendental emotional expression, manifested in his mastery as a composer. The flow of transcendental emotional expression depends on his level of creativity, his developed musical identity, and his aesthetic level of impact on the audience.

Performer Module

In this module there are two kinds of flows: activity flows executed by the performer and a flow of emotional expression that accumulates along his or her life in an increasing level of expertise/mastery as a performer. The activities flows are the following: a) To study the works to be performed, that accumulate in a repository called the repertoire of the performer. b) Instrument technical training that accumulates in a repository called instrument technical level. c) Concert performances that accumulate in a repository called the level of experience and performance self-reflection. d) Multisensory and movement learning practices which accumulate in a repository called body and emotional performing awareness.

There is also an external mentor in the system environment working with the music student through multisensory teaching practices. He leads the student in the cumulative building of emotional and body awareness resulting in his performances when he approaches the study of his repertoire. This mentor uses a type of pedagogy for 'humanistic' musical expression, based on theoretical and practical proposals coming from interdisciplinary views of different disciplines such as philosophy of music, sociology of music, music psychology, and neuroscience applied to music. It also creates transdisciplinary bridges with other arts like dance, theatre, visual arts, and music itself to encourage the interpreter to build his own musical identity, reinforce his creativity, and enhance his expressive intention in the execution.

Audience Module

A flow of listened concerts accumulates in the repository of musical culture that has to do with the number of musical works listened to. The level of emotion of the audience is fed by a flow of emotion produced by the performances, which is produced by the level of expertise of the performer, the level of mastery of the composer, and the bodily experience of the audience. In turn, this depends on the sensory and motor stimuli received, related to the expertise/mastery, the emotional and body awareness of the

³ The researchers of this article created the image.

⁴ The researchers of this article created the figure.

performer, and the emotional level of the audience. The emotional level reached by the audience at a concert, and the audience's emotional/body experience are reflected in the number of concerts they attend and their musical culture.

Below is the diagram of the dynamic systemic model of the expression of emotions in music performance.

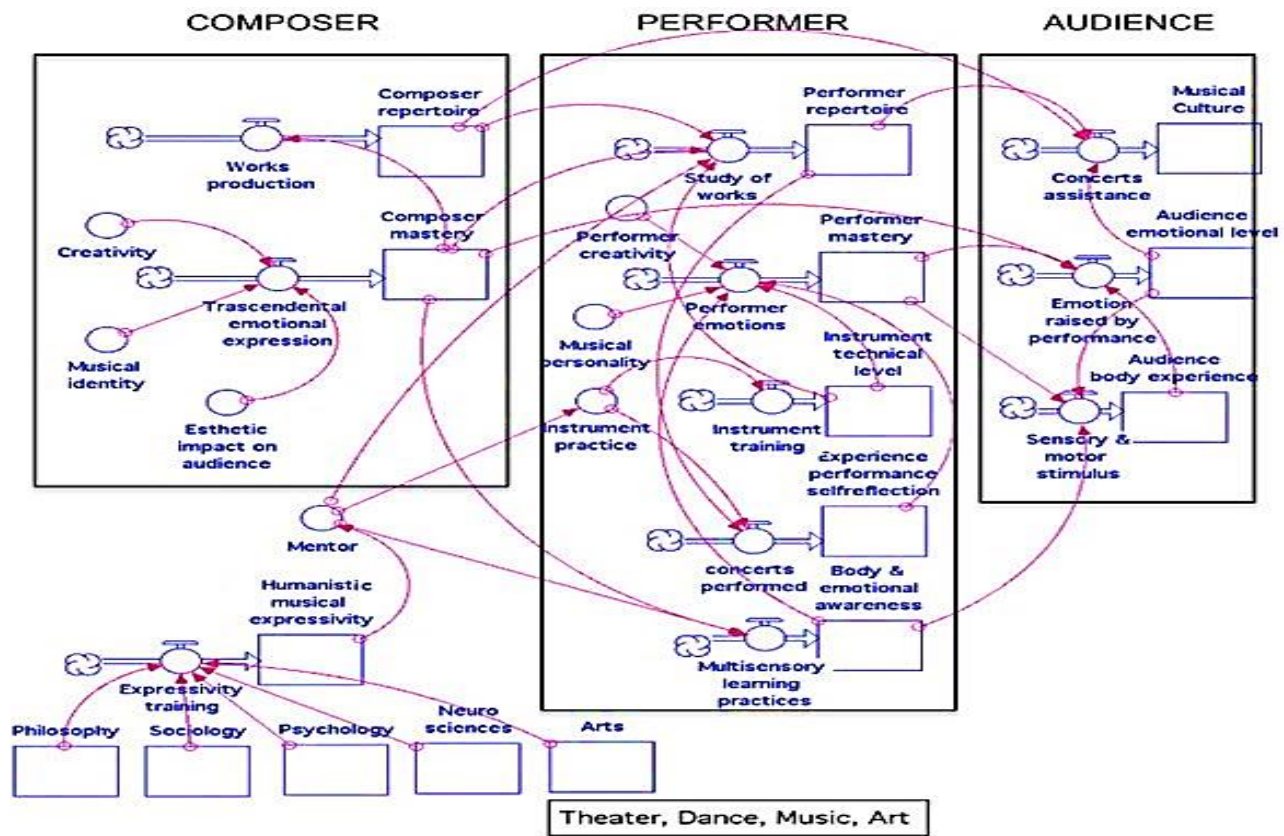


Figure 5. Diagram of the system dynamics model of the expression of emotions in music performance⁵.

In this diagram, we can see the three modules of the performance system: the composer (which includes the works he wrote), the performer, and the audience. These three modules are interrelated. In addition to the modules, there is a mentor in the system environment, which is essential for the transdisciplinary humanist pedagogical proposal.

4. TOWARDS A SYSTEMIC PEDAGOGY OF MUSICAL EXPRESSIVENESS

A change of paradigms in musical education is necessary, in a reflective and dialogic way, to achieve a systemic pedagogy of musical expressiveness. The teaching-learning process of expressiveness in musical interpretation is complex, so different self-formation processes are necessary for the performer.

Today's teachers would have to give great importance to self-formation and reflection on experience, concerning what is expected of them. In other words, the most significant aspect of learning is leading the student to train by himself, and for himself. To consider this point we are going to rely on Galvani's reasoning about transdisciplinary learning [13]. Galvani maintains that the exploration of the most significant moments of the lived experience is carried out through a reflective process of awareness and understanding.

If the interpretation is perceived in the musical act, this dialogue occurs between the work, the performer, and the audience, as a trans-emotional or expressive experience of life. Then a reflective and awareness-raising process for the performer would be essential, based on the most significant moments of the expressive experience lived, for his self-formation development. What we intend is to carry out a self-formation process based on reflection on the expressive experience lived [14].

Galvani presents two essential elements for self-formation: personal reflection on the experience and sharing lived experiences within a comprehensive dialogue group [13].

a) For the first point, it is necessary to carry out a phenomenological approach in which the phenomenon is described as it appears, that is, the subjective live of the experience [13]. The reflective process on the subjective live of the experience is not always implicit in the traditional process of learning a musical work. We are not only referring to the moment in which the performer begins to know the work, "to learn" it but also to the process of permanent learning. This phenomenological approach proposed by Galvani would have to

⁵ The researchers of this article created the model.

be worked on objectively, meaning that it involves becoming aware of and describing the expressive experience lived. b) The second point, sharing lived experiences within a comprehensive dialogue, is also not implicit in the traditional learning of musical score, for example, where a group of musicians performs a work of chamber music. It is about an understanding of themselves, and then between the group, which is even more complex. Galvani speaks of a hermeneutic approach, in the sense of interpretation and understanding. That is, a hermeneutical dialogue in a group allows us to explore the multiple understandings of the experience. Sharing the various ways of interpreting the work and understanding their differences allows for a global understanding. [14].

A pedagogical proposal was made to achieve subjective experiences, as a basis for reflecting expressiveness as a lived experience. These were based on our experience as musicians and teachers. This systemic transdisciplinary didactic proposal seeks to build the musical identity of the performer, through the creation of transdisciplinary bridges with different artistic settings (plastic arts, body expression in dance or theatre, and literature), reinforcing their sensitivity and creativity. Music was related to movement, colors, shapes, and written and oral words. This correlation of visual, spatial, bodily, literary, and acoustic experiences, and the development of processes of reflection and dialogue about experiences and learning, could provide a new way of perceiving the musical work, which is reflected as a new reality in musical performance [14].

5. CONCLUSIONS

Following our transdisciplinary systemic approach, a model was created that includes technical and emotional issues, creating transdisciplinary bridges with other arts, through the correlation of visual, spatial, corporal, literary, and acoustic experiences, and the process of reflection and dialogue on their experiences. In this way, the performer can achieve a new way of perceiving the work performed and reflect it as a new expressive reality in its execution.

This proposal is based on contributions from neuroscientists, psychologists, sociologists, and philosophers related to music and maintains that artistic education in general and music education in particular should take a more humanistic direction in its methods and procedures.

We consider the findings of this study as a contrast between the traditional vision of musical education that we have experienced, and a systemic, holistic, and transdisciplinary vision of emotional communication for musical education in performance.

The systemic model presented is based on Forrester's System Dynamics approach and is an original contribution that introduces the modelling and simulation technique in musical research.

6. ACKNOWLEDGEMENTS

We thank Dr. Carlos Franco Galván, from the Faculty of Arts of the Autonomous University of Puebla, Mexico, for having reviewed our work and for his valuable suggestions that contributed to its final presentation.

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