

Proposal of a Model from the Perspective of Parsons Functional-Structural Theory

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Abstract¹

Taking into consideration the use of the systemic models in interdisciplinary research and education, we analyze the perception of the musical act developed by Talcott Parsons in 1959, based on his Structural-Functional Theory for the social analysis of 1951. In this article, the creative act of the develops considering the demands of his role as a composer and performer, and the conditions the society at large imposed. This relationship also involves the interpretation of the inherited musical culture and is related to the composing skills of the author, the instrumental technique of the performer, and musical intelligence. As a case study, we take the emergence of the Mexican bolero to illustrate it. From this sociological approach, we can understand the identity of the Mexican bolero as a product of an era, in which both the composition and the musical performance are adapted to their cultural environment and are part of the society and its structure. Based on Parsons' proposal, we created a conceptual systemic model through four modules: Personal, Behavioral, Social, and Cultural. This model also represents the internalization, learning and socializations processes, which were the interrelationships between the systems for Parsons. Later we began to develop it in a computational systemic model, in which it is intended to measure the different variables of the musical act system, considering different contexts and temporal spaces.

Keywords: *Parsons Functional-Structural Theory, Mexican Bolero, Personal-Social Construction, Musical Act, Computational Model.*

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1. Introduction

In this article, we use the approach adopted by Talcott Parsons in 1959 on the perception of the musical act, built from his Structural-Functional Theory for social analysis raised in 1951, as an example of the use of systemic models in artistic research and education. in an interdisciplinary way.

This theory integrates different fields of knowledge and its purpose, which we will explain in the first section of this article, was to develop a clearer perception of the different levels of analysis.

In the second section, we will analyze the musical act proposed from the perception of Parsons (1959), in which the creative act of the musician develops between the demands of his role as a performer and the conditions of society.

As a case study, we carry out an analysis of the emergence of the Mexican bolero from the perspective of the musical act by Parsons (1959), which we present in the third section of this article. This study offers a new approach with a systemic base, where the personal, behavioral, cultural, and social subsystems are interrelated. In this way, very specific geographical and historical variables which are an important part in this research, define the complexity of the Symbolic World proposed by Parsons (1951).

Following the proposal of the perspective of the musical act that we used for the analysis of the emergence of the Mexican bolero, in the fourth section of this article we propose a conceptual model based on the system dynamics approach of Forrester (1961). The conceptual model is an original contribution from our research team, which introduces the technique of modeling and simulation in the investigation of art, specifically music, and allows us to understand the total behavior of the system.

Finally, we present, as an example, the behavior of the Personality System of the systemic model of the musical act of Parsons, through the Net Logo simulation model.

2. Structural-Functional Theory of Talcott Parsons (1951)

Talcott Parsons created in 1951 the *Structural-Functional Theory* for social analysis that integrates different fields of knowledge, such as psychology,

anthropology, and sociology. The purpose of this theory was to develop a clearer perception of the different levels of analysis, and it was explained through the existence and integration of four systems of action: the behavioral organism, the personality organism, the social system, and the cultural system (Ritzer 1993, p. 394).

In his work *The Social System* (1951), Parsons explains this theory and starts by clarifying what he understood as a function: “a complex of activities directed towards the satisfaction of one or several needs of the system” (Rocher 1975, p. 40). Parsons bases the theory on Structural Functionalism on the fact that the relations of the human sociocultural system cannot be understood as linear relations of cause-effect succession but must be conceived holistically.

For Parsons, there are four functional imperatives necessary and characteristic of any system: (A) Adaptation, (G) Goal Attainment, (I) Integration, and (L) Latency or Pattern Maintenance (AGIL). Therefore, a system must perform these four functions to survive.

To understand the perspective of Parsons' *Structural-functional Theory*, it is necessary to explain the AGIL scheme, four initials, that correspond to the four functional requirements necessary in any system:

A → Adaptation:

Every system must cover external situations, that is, it must be able to adapt to its environment and, at the same time, be able to adapt the environment to its needs.

G → Goal Attainment:

The system must define and achieve its fundamental goals.

I → Integration:

The system must be able to regulate the interrelation between its components and control the relationship between the other functional imperatives (A, G, and L).

L → Latent pattern-maintenance & reorganization:

A system must provide, maintain, and renew the motivation of individuals and the cultural patterns that comprise it (Ritzer 1993, p. 407).

The Parsons Social Action System is divided into four subsystems that correspond to the parts of the AGIL scheme:

- *Social System* (Integration)
- *Cultural System* (Latent pattern-maintenance & reorganization)
- *Personality System* (Goal Attainment)
- *Behavioral System* (Adaptation)

3. Parsons's Perception of the Musical Act (1959)

In 1959 Parsons elaborated a systemic perspective of the *Musical Act*, in which the *Personality System*, the *Behavioral System*, the *Social System*, and the *Cultural System* are conceived as subsystems of a larger system, the *Social Action System*. Parsons understood the *Personality System* as a system that organizes the actions of people so that they can achieve specific goals through the ability to decide and act (Münch 2007, p. 36). In this way, the *Personality System* is related to the *Behavioral System* because it is fundamental for the development of creativity and musical originality.

On the other hand, in the *Social System* of the *Musical Act*, the *Social Role* of the musician, his *Social Function*, and the expectations of the public are united, which at the same time include the interests of the producers and consumers of music and the provisions of the owners of power (Ibid, p.36). The *Social System*, as we can see, integrates the *Musical Act* into the structure of the social role through the affective connection of the musician with society, through the relationship of the musician with the public, public and the resulting glorification of the artist by them (the musical communities).

The *Personality System* is created through the relationship that exists between the instrument and the artistic abilities that the musician possesses. At this point, musical intelligence is inescapable for virtuous performance in the *Musical Act*. This is a system, where new challenges are carried out, both in the musical act and in learning, from musical invention and innovation.

The *Cultural System* represents for Parsons the musical culture transmitted, which is interpreted by the musician through specific knowledge (Ibid. p. 37). This part of the *Musical Act* is related to the function of maintaining structures that come from tradition. When a musician builds his work or creates a performance from the foundations of traditional musical culture,

he uses it as a foundation for the development of his creativity. Concerning the *Cultural System*, Münch argues that part of the *Musical Act* is related to the function of the conservation of implicit structures in which the musician constructs the interpretation of it, based on a transmitted musical culture (Ibid. p. 37). This system is also used by the musician to develop his creativity.

In the following figure, we present the systemic perspective of Parsons' Musical Act (1959), in which the Personality System, the Behavioral System, the Social System, and the Cultural System are conceived as subsystems of a larger system, the Action System Social.

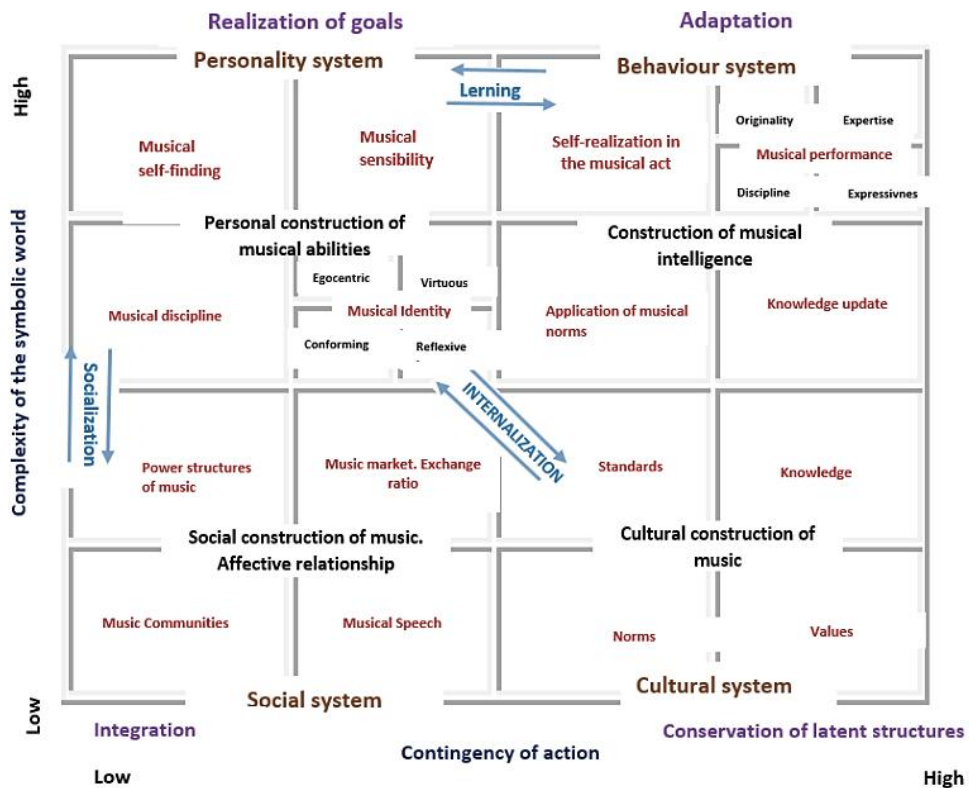


Figure 1: Parsons Perception of the Musical Act².

The Social Action System is composed of the Personality System, the Behavioral System, the Social System, and the Cultural System

Münch, R. (2007). "Die soziologische perspektive: Allgemeine Soziologie, Musiksoziologie, Kultursoziologie." In: Helga de la Motte-Haber & Hans Neuhoff. Musiksoziologie. *Handbuch der Systematischen Musikwissenschaft*. V. 4. Germany: Laber –Verlag. p. 36.

² Translated from the German by the researchers of this paper.

The *Internalization Process* that Parsons proposes is precisely the awareness of belonging to a great system that works holistically, in which its *Subsystems*, the *Cultural*, the *Social*, the *Behavioral*, and the *Personality*, influence the way of being and the perception of reality, and, therefore, the way the Musical Act is performed.

Parsons maintains that it is not possible to reach a level of *Human Personality* and, consequently, a *Human Social System*, without the minimum *Cultural Resources* of a *Social System*. This operates through the functions of the *Culture* for the *Development of Personality* and is assimilated through a Process of Internalization by the subject (Parsons 2005, p. 35).

4. Case study: the emergence of the Mexican bolero from the perspective of Parsons' Musical Act (1959)

An analysis of the Mexican bolero from the perspective of Parsons' Musical Act offers a new systemic approach, where the Personal, Behavioral, Cultural and Social subsystems are interrelated. The complexity of the Symbolic World is delimited by very specific geographical and historical variables, and some of them are part of the material of this investigation.

In the first place, we will focus on the *Cultural System*, in other words, the *Cultural Construction of Music* and its interrelation with the *Personality System*, in which the *Construction of Personal Capacities* is intended.

Around 1850 a musical genre emerged in Cuba, not only for listening but for dancing, with rhythms taken from percussive instruments of African origin that were added to Spanish dances and melodies. The creators of this genre, a group of troubadours from Santiago de Cuba interpreted the troubadour song and, in this way, gave elements and rhythms from the rural son of eastern Cuba to the nascent bolero. In this Antillean world, the Cuban Bolero arises, and it is José “Pepe” Sánchez who is credited with creating the genre and the first bolero (Olsen & Sheehy, 2008). Here is a clear picture of the function of Maintenance of Structures that come from the Tradition. In other words, Pepe Sánchez, a musician who builds his

work, starting from the foundations of inherited musical culture, uses it as a foundation for the development of his *creativity*.

Likewise, *artistic sensitivity*, *musical self-discovery*, and *discipline* are reiterated to “Pepe” Sánchez again, as his grandson points out: “There are enough elements to show that it was my maternal grandfather, José Vivanco Sánchez (Pepe Sánchez) who was the legitimate and the first inspirer of the genre” (Barceló-Fundora, 2003).

First, we must remember that we are talking about music, and in such a *spontaneous* and *sensitive art (sensitivity)*, it is misleading to talk in terms of “the inventor or creator” of this or that rhythm, or genre. We believe that nothing in art is invented from scratch, but it is the result of further development (*musical discipline* and *self-discovery*) and that certain *personalities*, with their enormous *creativity* and careful *artistic sensitivity*, integrate the fundamental elements that are in the *cultural environment*, under certain *standards*, *norms*, and *principles*, specifying a certain way of *making music*.

The characteristics in terms of the *musical identity* of "Pepe Sánchez" are elusive. However, the *Asociación Pro-Arte Libre* with activity since 1990 in Cuba, and currently present on social networks such as Facebook, mentions in the following quote the element on *virtuosity* and *reflexivity* as central elements in José Vivanco Sánchez *Personality*:

He had no academic musical training whatsoever, but with his purely intuitive musical knowledge, he admirably taught the playing of the guitar, an instrument that he played with great skill and sang very well, with a baritone voice. José Sánchez was a tailor by profession and showed an extraordinary talent for his occupations: music and tailoring. Due to his talent, exercise and vocation, Pepe Sánchez was, in turn, the teacher of important figures in Cuban music. (APAL, 2013)³

In the construction of Parsons *musical intelligence*, there are also elements linked to the named creator of the Bolero, noting that without musical education he was able to apply *musical norms*, *update knowledge* for his time and express *originality* in the *Musical Act*. The Bolero "*Tristezas*"

³ Translated from the Spanish by the researchers of this paper.

(Sadness) by "Pepe Sánchez" is a clear demonstration of this ability achieved through the *Personality System* and the *Behavioral System*, which through an *internalization process* work holistically with the *Cultural* and *Social Systems*.

The Bolero began in Cuba and, nevertheless, it acquired a new identity in Mexico in the 1920s. Coinciding with the first years of the Mexican Revolution, an event of great importance within the Mexican *Social* and *Cultural System*, the Cuban Bolero arrives in Yucatán carried by “artists of variety”.

From the *Social Construction of Music* that Parsons proposes, we can mention that the Bolero arises in scenarios of profound *social, political, and economic transformations*. During the first two decades of the 20th century, the Bolero acquires its own identity, becoming a musical discourse that allows citizens to live with the accelerated growth of economies, participate in new demands and needs, adapt to the new urban structures of cities, and legitimize the new classes that run the world of business and political power.

Among the first great composers and performers to become famous with the Bolero, there is a unique character, Agustín Lara. In Mexico, television did not yet exist, and it was through the sounds of the XEW radio station that music finally managed to reach the *population instantly* (the musical discourse focused on the Musical Communities within the Parsons System of Action). Every night in the XEW was presented in 1930 “*La hora de Agustín Lara*” (“Agustín Lara's time”) where the Boleros were performed live in their new format (Sturman 2016, p. 343). Agustín Lara became the first musical star of national reach in Mexico and his songs would create a new style of the artist.

Following the *Parsons Personality System*, we can trace some of the identifiable characteristics in Agustín Lara as the creator of Boleros for the *Musical Act*. The *personal construction of musical action capabilities* is revealed in his personal story. In his youth, his career as a musician began playing in brothels and houses of poor note in Mexico City, and in spite of belonging to a wealthy family, Lara rebelled against her family and decided

to learn music on his own, without studying in any traditional academy or institution (Pineda 1990, p.4).

This process of *musical self-discovery* led him to develop his *improvisation capacities*, an element belonging in Parsons's graph to the search for *self-realization* in the *Musical Act*, part of the *Behavioral System* and the *process of adaptation* of the Artist to the desired environment (Ibid, p. 6).

Lara builds a large part of what would lead him to fame from his Boleros, *musical self-discovery* is present in his reconstruction of the Cuban Bolero and its transformation into a *New Style* of "*Sprachgesang*" (spoken song), and quintuplet formats inside of his boleros, as well as elements of *originality*, *expressiveness* and *sound update* that are easily recognizable in Parsons *Personality and Behavioral Systems*. Of course, there is also a powerful *egocentric aspect*, which led him to Break the Schemes in the Application of *musical norms* in a new direction: "For this reason, it is not surprising that musical and literary prosody were so wonderfully coupled in Lara" (Ibid, p. 5).

The passage from radio to cinema gave Agustín Lara the fame and recognition that would make him an icon of the Mexican Bolero. Analyzed from the *Social System*, new *structures of power* and *music market* come into action for the *musical communities*. However, the genre also has representatives in the Mexican Golden Cinema, characters that would build other *Personality and Behavioral Systems* completely different from that of the *composer-pianist-interpreter*.

The Golden Mexican Cinema era began in 1930 and lasted until the mid-1950s. It exerted a profound influence on the concept and character of Mexican music and transformed *popular traditions* into stylized national entertainment exportable to the entire world. This is analyzed by Parsons from the *Cultural System*, as the inherited musical culture, interpreted by the new *actor-singer* through specific knowledge, and transmitted through the media, radio, television, and cinema, to the *musical communities* of the entire world. It is also possible to analyze the *Social System*, represented from the *music market*, in its exchange relationship.

From this, new national genres were developed, and the *identity* of the Bolero was promoted through *actor-singers* who played the roles of the national constructed imagination. Among the most recognized interpreters are Jorge Negrete and Pedro Infante (Sturman 2016, p. 352).

Through these actor-singers, who not only performed Boleros, but also other genres such as the *Canción ranchera* (Ranch song), a reconstruction of the Mexican and country imaginary is carried out, and the perspective is highlighted by Parsons on the *Cultural Construction of Music*, through the *standards, knowledge, norms, and cultural principles*.

Pedro Infante and Jorge Negrete represent, during this period, the famous actor-singer. Jorge Negrete studied formal singing and his interpretation of the bolero is crossed by the characteristics that Parsons proposes as part of the *Behavioral System* that includes *discipline, expressiveness, and originality*. Negrete put his voice at the service of Mexican cinema and at the same time updated his knowledge including the bolero sung in movies. However, there are many stories of his *conceited personality*, which fit into essential parts of the *personal construction of musical capacities* also included in Parsons, fulfilling the *egocentric* and *virtuous* element of the opera singer immersed in bolero performance, and the *Canción ranchera* (Ranch song) in the new media of that time (Ibid, p. 354). Pedro Infante is the other central character of this time and his journey to fame is different. He did not carry out serious academic studies, however, in his *Personality System* the *musical sensitivity*, as well as the *identity* that gave him fame, make him a *character* capable of building all the systems that Parsons explains in the complexity of the Musical Act.

Below we show the emergence of the Mexican bolero from the perspective of the Parsons Musical Act (1959). All the elements that were analyzed around the emergence of the Mexican bolero are located within the Behavioral, Personality, Cultural, and Social Systems.

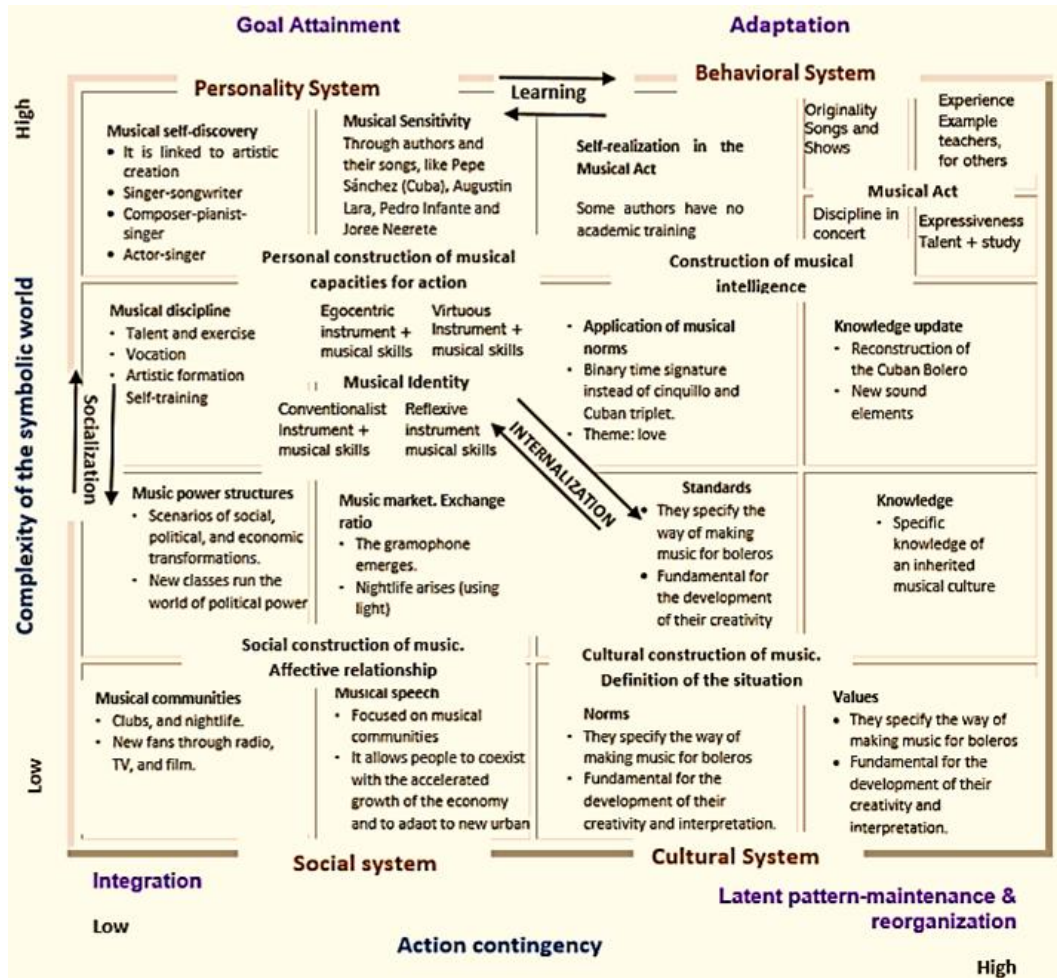


Figure 2: The Emergency of the Mexican Bolero Through the Talcott Parson's Musical Act Approach⁴.

5. Computational proposal based on the systemic analysis model of the Parsons Musical Act

After having carried out this analysis of the emergence of the Mexican bolero through the perception of the Musical Act of Parsons (1959), we will proceed to build a Systemic Conceptual Model based on Forrester's System Dynamics approach (1961). It is a tool for the construction of simulation models that aims to understand the structural causes that cause the behavior of the system. This implies knowing the behavior of each element of the

⁴ Adaptation made by the researchers of this paper.

system and observing how different actions carried out in some parts of the system accentuate or attenuate its behavioral tendencies.

The Conceptual Model is an original contribution from our research team, which introduces the technique of modeling and simulation in music research. We have used the Stella Software for the graphic representation of the model, which has allowed us to model and study the behavior of the *Perception System* of the Musical Act of Parsons (1959), through the data collected in the study carried out on the emergence of the bolero Mexican.

The conceptual model is represented through four modules, the four *Systems: Personal, Behavioral, Social, and Cultural*, of the *Systemic Model* of the Parsons Musical Act (1959). The interrelationships between the systems, which Parsons mentioned as *internalization, learning, and socialization* processes, are traced employing arrows between the different modules.

In each module, we find a system state variable (a rectangle), which is what we are interested in modeling and observing. Parsons called the variable of the *Personality System*, *Personal Construction of the musical capacities of action*, that of the *Behavioral System*, as *Construction of musical intelligence*; that of the *Social System*, as *Social Construction of music*; and that of the *Cultural System*, as *Cultural Construction of Music*.

Each of these variables represents an accumulation and varies depending on the flows it presents (arrow keys that go to the variables). The flows determine the level of the variables. Auxiliary variables and constants (connecting circles) are parameters that allow better visualization of the aspects that condition the flows behavior.

For the construction of the simulation model, we have used the Net Logo Software.

With this model, we intend to observe, over a long time, the significant aspects of the system, as well as its behavioral tendencies.

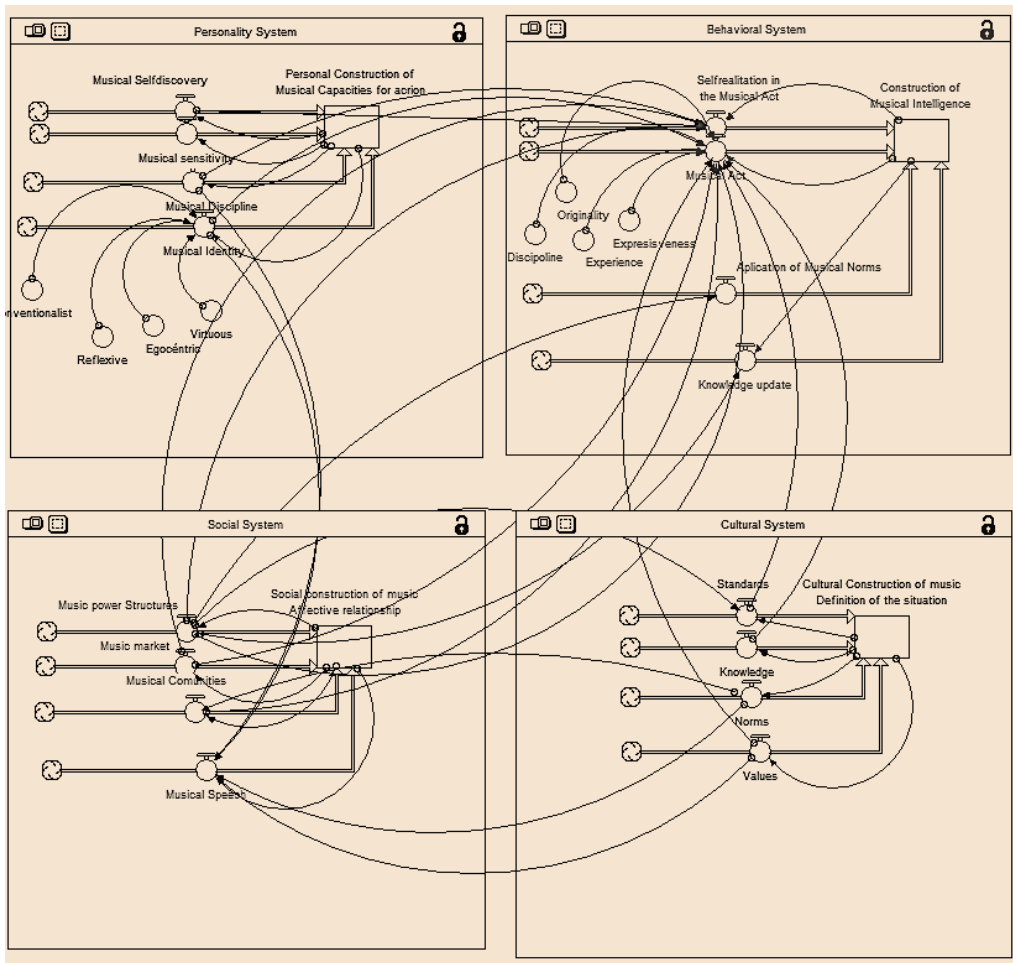


Figure 3: Conceptual proposal based on the Systemic Model of Parsons Musical Act⁵. The conceptual model is represented through four modules, the four Systems: *Personal*, *Behavioral*, *Social* and *Cultural*, of the Systemic Model.

Finally, we present below, an example of the behavior of the *Personality System* of the Systemic Model of the Musical Act of Parsons, in the Net Logo simulation model.

In the following figure, we find only the state variable, the flows, the auxiliary variables, and constants of the *System of Personality* in the Perception of the Musical Act of Parsons (1959).

⁵ Created by the researchers of this paper.

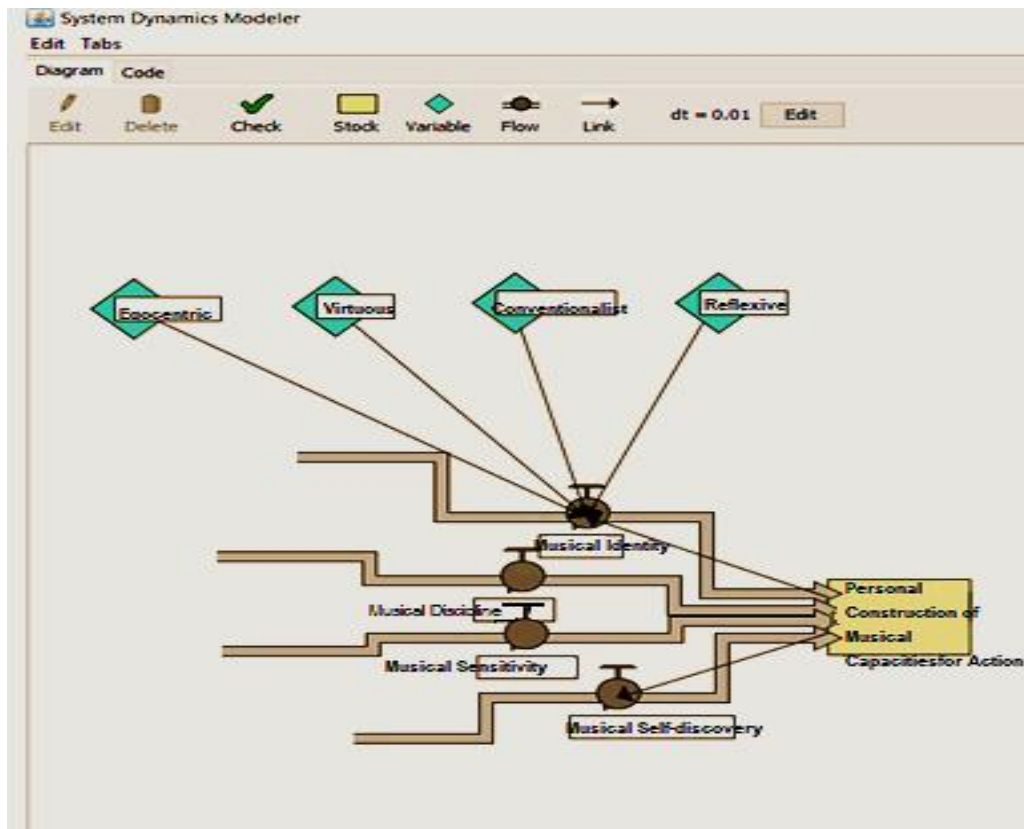


Figure 4: The state variable, the flows, and the auxiliary variables of the *System of Personality* in the Perception of the Musical Act of Parsons (1959)⁶.

Each of these variables represents an accumulation and varies depending on the flows it presents (arrows that go to the variables). The flows determine the level of the variables. Auxiliary variables and constants (connection circles) are parameters that allow better visualization of the aspects that condition the behavior of the flows.

In the following figure, the *Personality System* in Parsons Systemic Model, we can observe the behavior of the state variable *Construction of Musical Capacities for Action*.

With this model, we intend to observe, over a long time, the significant aspects of the system, as well as its behavioral tendencies.

⁶ Created by the researchers of this paper.

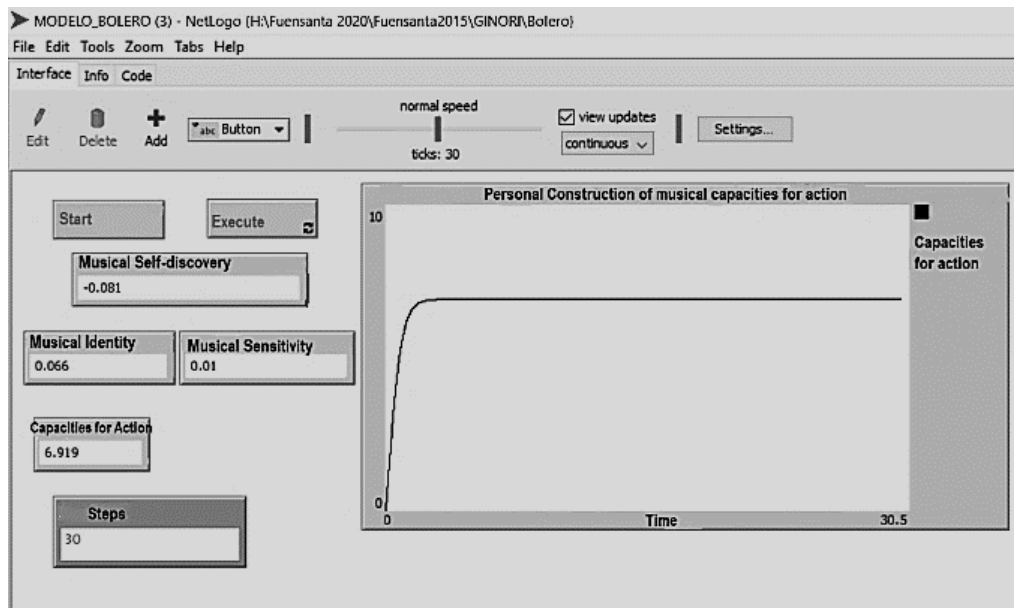


Figure 5: *Personality System* in Parsons Systemic Model⁷. In this figure, we can observe the behavior of the state variable *Construction of Musical Capacities for Action*.

4. Conclusions

- The conceptual and computational models created through the perception of the Musical Act by Talcott Parsons are methodologically novel since they can generate original results, and lead to very interesting interpretations.
- By investigating this models, transversal bridges are created that generate interdisciplinary communications. In this case study, between the disciplines of art (music), sociology, cultural studies, simulation, etc.
- With these models, it is possible to achieve interdisciplinary research and education that connects art and the different fields of science.

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⁷ Created by the researchers of this paper.

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