

A SEMIOTIC THEORY OF MUSIC: ACCORDING TO A PEIRCEAN RATIONALE

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[1] The recent growth of musical applications of Peirce's general theory of signs, such as in the works of David Lidov (1986), Robert Hatten (1994), William Dougherty (1993, 1994), shows that this approach, once set properly in both musical and semiotic contexts, has great analytical power on questions of musical signification. In this paper I will present the structure of a semiotic theory of music, as demonstrated in my doctoral dissertation, [*Semiosis in Hindustani Music*](#) (Imatra: International Semiotics Institute), submitted and approved by the University of Helsinki in 1997.

[2] Peirce, in his studies of semiotics, concluded that thought is only possible by means of signs (vide CP 1.538, 4.551, 5.253). Music is a species of thought; and thus, the idea that music is sign and depends on significative processes, or semiosis, is obviously true. A musical sign can be a system, a composition or its performance, a musical form, a style, a composer, a musician, hers or his instrument, and so on. According to Peirce, signification occurs in a triadic relation of a sign and the object it stands for to an interpretant (CP 6.347), which - in music - is another sign developed in the mind of a listener, musician, composer, analyst or critic.

[3] In Peirce's classification of the sciences, semiotics (or *semeiotic*) has three branches: Speculative Grammar, Critic and Methodetic (or Speculative Rhetoric) (CP 1.192). According to Nathan Houser, the scholar who studies speculative grammar deals with the intrinsic nature of signs and semiosis. S/he examines relations among signs, the nature of the correlates taking part in semiosis, Peirce's sign trichotomies, and his ten or - broadly speaking - sixty-six classes of sign. The study of critic deals with signs in relation to their objects, and especially the condition of signs' references in relation to their signified objects. Consequently, critic deals with truth and the concept of truth. It encompasses the study of reasoning, or the three kinds of arguments (abduction, induction and deduction). Methodetic studies signs in relation to their interpretants. Thus, semiosis is focused on the interpretant level, and how interpretants themselves can become signs during semiotic processes (Houser 1990: 210-11).

[4] It seems to me that, just as Peirce divided formal semiotics into three areas, musical studies can also be understood as three interrelated fields, not as broad and abstract as speculative grammar, critic and methodetic are, but still showing a concern for the following: (1) 'the general conditions of signs being signs' (CP 1.444), that is, the intrinsic nature of semiosis, or the study of signs and their systems of inner relationship; (2) 'the theory of the general conditions of the reference of Symbols and other Signs to their professed Objects' (CP 2.93), that is, the relation of signs to their objects; and (3) 'the necessary conditions of the transmission of meaning by signs from mind to mind, and from one state of mind to another' (CP 1.444), that is, the relation of signs to their interpretants, interpreters and systems of interpretation. On the microscopic level, the same division represents the basic relations of Peirce's model of semiosis: (1) the sign in itself, (2) the sign related to its possible objects, (3) the sign related to its possible interpretants.

[5] Accordingly, the analytical model I propose comprises three interrelated fields of inquiry. **1. Intrinsic Musical Semiosis**, or the study of the musical sign in itself, deals with internal musical signification. It constitutes the semiotics of musical materiality. Intrinsic semiosis encompass musical qualities, actualization of musical works, and the organizing habits of music, such as musical systems. **2. Musical Reference**, or the study of musical signs related to their possible objects, deals with the musical signification of a broad class of objects. This field investigates questions such as how a musical sign refers to an object, the possible dynamical objects represented

by music and their modes of being, the possible relations between a dynamical object and the immediate object as represented in the sign. **3. Musical Interpretation**, or the study of the musical sign related to its interpretants, deals with the action of musical signs in an existing or potential mind. Issues of musical interpretation can be divided into three sub-fields: (first) musical perception; (second) performance; and (a double third) musical intelligence (analysis, criticism, teaching, theorizing and musical semiotics) and composition. In my dissertation this theory was applied to Hindustani classical music. Yet, it seems to me that it can be used as a model to analyze other musical traditions.

[6] Considering this theoretical framework, I would like to discuss now some possible layers of musical signification. The study field of Intrinsic Musical Semiosis deals, in the first place, with musical qualities, or qualisigns. The different use of the human voice in the several musical traditions in the world shows the variety of possible musical qualities in respect to one means of sound production. Indeed, voices represent unique qualities, well demonstrated in considering the Inuit vocal games, the *bel canto*, the *khayal* of Hindustani music, the *no* theater, or the songs of the African *griot* singers. All those cases, in respect to the material appearance of the musical sign, are examples of qualisigns. Each work or its performance presents particular musical qualities. I mean not merely timbral, rhythmic or melodic qualities, but also the general quality that a musical sign has. Moreover, music means also in the relation of its forms and structures with the actualization of those when composing playing or improvising. Musical forms and structures are habits of musical organization, and can be understood as legisigns, whereas their actualizations, the performance of works and forms are sinsigns, or musical existents. In this way, the tonal cadence, or an interrupted cadence, is a legisign that actually manifest itself in all musics that makes use of it, from classical to pop. Their occurrences are sinsigns, replicas of the cadence legisign.

[7] As the field of Musical Reference studies the relations between sign and object, it becomes clear the great capacity of musical representations, which can signify a variety of acoustic and non-acoustic objects. There are several species of musical meaning. The fundamental one is that in which sign and object present a relation of identity, that is, the musical sign is a pure icon. Indeed, music has the capacity of signifying itself. Some music aestheticians, as Eduard Hanslick (1989:61); and composers, such as Pierre Boulez (1986: 32) and John Cage (1961: 96, Kostelanetz 1988: 200), defended that this is the main signification mode in music. However, the idea of pure music or absolute music can not be extended to all other musical conceptions in time and space. For, in those other traditions, representations of several kinds are the basis of their distinct aesthetic conceptions.

[8] The importance and variety of iconic signs in music is well know (see Martinez 1996). Peirce divided the iconic signs in images, diagrams and metaphors (CP 2.277). Images are icons that represent the appearance character of their objects. Examples of this kind of iconic musical representation ranges from bird song to the *musique concrète*. Diagrams represent some form or structural aspect of their objects. This is a common semiotic device for representing qualities of movements and forms, as musical signs in opera and program music. A good example is Debussy's *La Mer*, which instead of representing the sounds of the ocean, rather suggests its undulations and fluxes.

[9] As concerning to metaphors in music, let us take the third part of Luciano Berio's *Sinfonia* (1968). It is well known that Berio quoted in this piece several fragments of other musical works. In the first ten measures, the trombones and the tubas, and afterwards the strings, play a fragment of the fourth part of Schoenberg's *Fünf Orchesterstücke*. Simultaneously there are parts of Mahler's *Fourth Symphony* (flutes, percussion an strings) with Debussy's *Jeux de Vagues* (woodwinds, harp, kettle-drums and strings), the second part of *La Mer*. Berio quotes the *Second Symphony* of Mahler afterwards in the woodwinds. All those fragments are iconic signs which, along with sung and spoken parts by the voices, in special those from the play by Samuel Beckett, *The Unnamable*, signify in the form of a great musical metaphor. It is important to notice that Peirce classified metaphors as a kind of iconic sign.

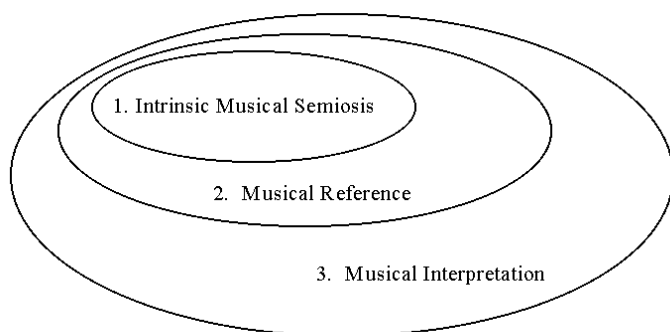
[10] Berio's *Sinfonia*, as an existing piece of music, determined in time and place, is an index not merely of the music as composed by Berio, but in a more general sense, an index of our century and the Western contemporary culture. All performances of this composition are indexical signs of the European music of the second half of this century. Moreover, the *Sinfonia* can be thought as a symbol. As the third part develops, Berio quotes a number even greater of other composers' works: Berg, Brahms, Hindemith, Ravel, Strauss, Berlioz, Stravinsky, Berio himself, Pousser, Beethoven, Boulez, Webern and Stockhausen, always surrounded by quotations from Mahler. When the voices utter the phrases of Beckett: "Where now? Who now? When now" the *Sinfonia* symbolizes not merely the history of symphonic conception of music, but the complexity of the contemporary musical universe; where musical signs of all periods and styles unfold continuously and bring together their universes of meaning, still generating new signs and new significations.

[11] Music is a complex semiotic entity and thus it can be studied according to different points of view. The fields of Musical Semiotic Inquiry I propose offer the possibility of specifying the semiotic analysis. Yet, it is necessary to take into account that, according to Peirce, there is a logic determining the interdependence of the three fields. It is possible to study the field of Intrinsic Musical Semiosis in an independent way. That, however, is included in the field of Musical Reference (see Figure 1). In this way, the field of Musical Interpretation is the most wider and complex field of musical semiosis. Musical interpretants, as full fledged semiotic processes, are the actual result of musical signification. Even though musical interpretation depends on forms of intrinsic semiosis and musical reference, it is in the complexity of musical interpretants that music actually is presented, exists and signifies.

Figure

1

Logic relations among the three fields of music semiotic inquiry



[12] The field of Musical Interpretation, encompassing the former two, can be thought as a group of correlated studies (see Table 1). Musical perception, cognition, performance, analysis, history and composition are kinds of musical interpretants, because they are the result of actual semiosis. Perception is, obviously, a basic form in the process of generation of musical interpretants. Firstly, because perception and cognition are essential in constituting a musical mind. Secondly, because one has to recognize that musical semiosis begins with perception, since it is with the participation of a mind that music can be enjoyed, produced, conceived, transformed, played, taught and composed. Such complex field requires divisions and subdivisions. At the first level, Musical Interpretants can be studies in the areas of perception, performance, musical intelligence and composition. Perception is divisible according to Peirce's emotional, energetic and logic interpretants. Table 1 presents even finer subdivisions.

[13] Performance is a kind of musical interpretant at the same time necessary and complementary to perception, since it deals with the actualization of musical signs. There is an aspect of brute force in performance, the physical actions and strikes that produce sound vibrations at the instruments. However, performance cannot be simply a matter of brute force, as almost always there are intelligible principles, habits and laws of musical thought, which control the psychomotor impulses or the electro-acoustic devices producing music. The sub-field of musical performance may be divided in performance oriented according to purely musical aspects, performance oriented according to functional aspects, and performance oriented in representational aspects.

[14] The third sub-field of musical interpretation branches in musical intelligence and composition. Musical intelligence are the scientific way of thinking music. For me, musicology, in its broadest sense, belongs to this sub-field. Here it is important to recognize that as far as the physical and mental universes are continuously expanding, the universe of music also expands. Thus, the truth that can be established by the sciences of musical intelligence is temporary, provisional truth, for the process of musical inquiry is open, continuous and infinite. Then, another consequence of the episteme of this theory is that all musical investigation is necessarily a semiotic study, for the only way to know the reality is by means of signs and semiosis. Peirce wrote that the logically highest forms of semiosis, the rational and symbolic thought, characterize by continuity, a sign being translated into another sign, better developed. This process is again the unfolding and webbing of interpretants. I divided this sub-field in three areas: (1) musical aesthetics, or the study of the admirable in music; (2) the study of practical features of music; and (3) musical semiotics, the discipline we are practicing at this very moment.

[15] Finally, composition is a parallel sub-field to that of musical intelligence. A semiotic classification of types of composition branches in three: (1) absolute music, in which the musical sign does not refer to an object but only to its own musical materiality; (2) functional music, in which there is a dynamic relationship of the piece of music with some other thing; and (3) representational music, in which the musical signs refer to acoustic or non-acoustic phenomena.

[16] The structure of a semiotic theory of music based in the general theory of signs of Charles Peirce seems to encompass all musical thought. Yet, what I propose here, is not a dogmatic and rigid system, but a theory that intends to be flexible and in a permanent state of development. In considering this theory, it is important to remember that, as in a multi-dimensional labyrinth, the fields and sub-fields and their branches are related according to the logic of the relatives, which can be represented by this formula: $\{(1) 2\} 3$. Finally, I want to emphasize the epistemic view that I adopt. Namely, that a theory, the more complete it could be, it will bear particular features directly related to each application of its principles. Indeed, science is also sign and sign interpretation of reality. Thus, it is not the sign that determines the object, but rather the object in this case the complex musical fact, that determines the sign and its interpretants a semiotic theory of music.

Table 1

Musical Interpretation:

3.1 Musical perception (and cognition)

3.1.1 Emotional listening

3.1.1.1 quality of feeling

3.1.1.2 sensation

3.1.1.3 emotion

3.1.2 Energetic listening

3.1.2.1 mental effort

3.1.2.2 instinctive corporal movement

3.1.2.3 applause, work, dance

3.1.3 Rational listening

3.1.3.1 abduction

3.1.3.2 induction

3.1.3.3 deduction

3.2 Musical Performance

3.2.1 Performance based on musical features

3.2.1.1 based on pure sound qualities (Shakuhachi Zen, vide Gutzwiller 1984)

3.2.1.2 based on musical existents ("authentic" performances)

3.2.1.3 based on structural features of the music

3.2.2 Performance based on functional features

- 3.2.2.1 emotive functions
- 3.2.2.2 dynamic functions (work songs)
- 3.2.2.3 inter-semiotic functions (dance, cinema, video, multimedia)
- 3.2.3 Performance based on representational features
 - 3.2.3.1 aesthetically oriented
 - 3.2.3.2 referentially oriented
 - 3.2.3.3 educationally oriented

3.3a Musical Intelligence

- 3.3.1a Musical Aesthetics
 - 3.3.1.1a aesthetic perception
 - 3.3.1.2a aesthetic performance
 - 3.3.1.3a aesthetic theory
- 3.3.2a Musical pragmatics
 - 3.3.2.1a analysis
 - 3.3.2.2a the study of performance issues
 - 3.3.2.3a musical education and critic
- 3.3.3a Music Semiotics
 - 3.3.3.1a Intrinsic Musical Semiosis
 - 3.3.3.2a Musical Reference
 - 3.3.3.3a Musical Interpretation

3.3b Musical Composition

- 3.3.1b Absolute Music
 - 3.3.1.1b total indetermination (John Cage's 4'33")
 - 3.3.1.2b improvisation and open forms
 - 3.3.1.3b complete determination of the composition
- 3.3.2b Functional Music
 - 3.3.2.1b spontaneous music (play function)
 - 3.3.2.2b interaction music/function (social, religious, military, commercial music)
 - 3.3.2.3b systematized functionality (music for dance, cinema, etc.)
- 3.3.3b Representational Music
 - 3.3.3.1b emotion (affektenlehre, ethos, rasa)
 - 3.3.3.2b descriptive music (symphonic poems, program music)
 - 3.3.3.3b symbolic systems (raga, Wagner's total work)

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