# From Rhetoric Musical Figures to Cognitive Types: An Italian Lamento Strolling Along the Streets of Madrid

by

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#### 1. Introduction.

Ojos pues me desdeñáis is a lovely song with an intense Spanish baroque flavour. However, would you believe me if I told you that this song is a *Lamento* of the likes of *Lamento de Ariannna* by Caludio Monteverdi or Dido's lament by Purcell? (see **ex. 1**).



Ex. 1 *Ojos, pues me desdeñáis* by Spanish composer José Marín (*ca.* 1618-1699) (Lázaro 1997: 150-153).



Cont. Ex. 1 *Ojos, pues me desdeñáis* by Spanish composer José Marín (*ca.* 1618-1699) (Lázaro 1997: 150-153).



Cont. Ex. 1 *Ojos, pues me desdeñáis* by Spanish composer José Marín (*ca.* 1618-1699) (Lázaro 1997: 150-153).



Cont. Ex. 1 *Ojos, pues me desdeñáis* by Spanish composer José Marín (*ca.* 1618-1699) (Lázaro 1997: 150-153).

It is commonplace that Spanish baroque music genres, forms, and styles are quite different from the contemporary music of other European countries. This affirmation is basically true.<sup>1</sup> During the 17<sup>th</sup> Century the whole of Hispanic culture seems to have anchored itself in renaissance traditions avoiding new developments being introduced then by the Italian musical vanguard. However, if we analyse this song within the scope of the *enactive* semiocognitivist approach,<sup>2</sup> we can see how it could be understood as a singular example of an Italian or pan-European *Lament*.

<sup>&</sup>lt;sup>2</sup> The *enactivistic* approach has been introduced into cognitive studies by biologist Francisco Varela and others scholars (see Varela, Thomson and Rosh 1992, Maturana 1995-1996 and Maturana and Varela 1980). Against *naive realism* and *radical constructivism*, enactivism claims the world emerges from the simultaneous interaction between *objects*,



<sup>&</sup>lt;sup>1</sup> For introductory and semiotic studies on 17<sup>th</sup> Century Spanish art song see López Cano (2001a, 2001b, 2001a, 2002b)

## 2. The Promenade in Madrid of an Italian lament

#### 2.1. Sentencia 1.

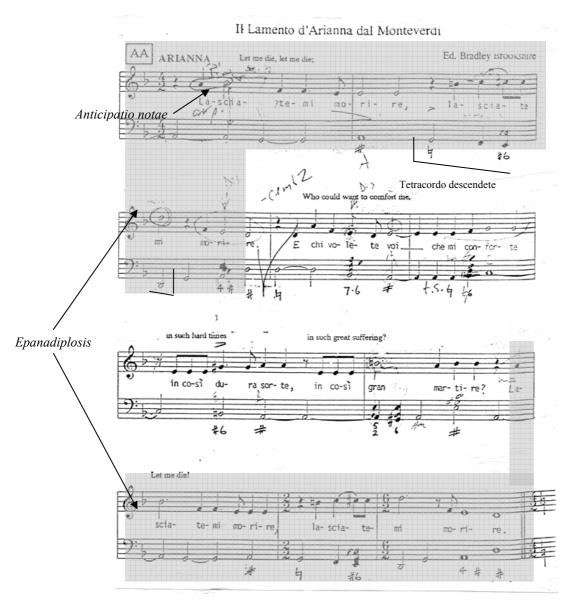
In the first section we find the words: "Disdainful eyes". This is a kind of sad recognition. The poetic voice appears to say: "Dear eyes (and here the word "eyes" is a synecdoche pars pro toto of the beloved), I love you deeply but I feel that you do not love me. You heart does not respond to my love". The state of depiction of the frustrated lover expressed in these words is also intensified by music. The entire melodic movement of the sample descends step by step. In the tradition of the theories of musical rhetoric figures from the Baroque, this kind of fall was called catabasis (cf. López Cano 2000: 152). And also, the melodic line is broken by short rests in imitation of sighs: the rhetorical suspiratio (cf. López Cano 2000: 198-9). The end note of the fragment is a low D, the lower note of the entire song: in rhetoric this was considered a kind of poetical exaggeration called hypobole (a special case of hyperbole) (cf. López Cano 2000: 156-158).

Nonetheless, there is a much more important feature in this section: the fragment covers a complete octave. It starts on a D and ends on the same pitch but in a octave lower (see bars 1 and 8). The repetition of the same element at the beginning and end of the same unity (x...x) is called in musical rhetoric theory *epanalepsis*. When this repetition occurs in larger fragments (x.../...x) it is called *epanadiplosis*. These figures belong to a family of rhetorical resources called *rhetorical circle*. They define an important *Stylistic type* of *lamenti*. We can find *epanalepsis* or *epanadiplosis* in many other laments. For example, let's consider the introductory section of *Lamento de Arianna* by Claudio Monteverdi (see ex.2)

<sup>2002).</sup>The specific of the sp



*environments* and perceptual capabilities of *organisms*. The enactivistic approach has been introduced in musical semiotics in recent writings by Reybrouck (2001) and López Cano (2002f, 2002f and forthcoming). During the past 7<sup>th</sup> ICMS in Imatra (2001), the issue was introduced by Reybrouck and others in the special session devoted to pragmatism. The issue of understanding processes has been reintroduced in musical semiotics by Tarasti (2001 and 2002).



Ex. 2a Lamento de Arianna by Claudio Monteverdi. Introductory Epanalepsis



Ex. 2b Lamento de Arianna by Claudio Monteverdi. Anticipatio notae

We find also another epanalepsis in the entire macrostructure of Lagrime mie, a lament by the composer Barbara Strozzi (Diporti di Euterpe, Venice, 1659).

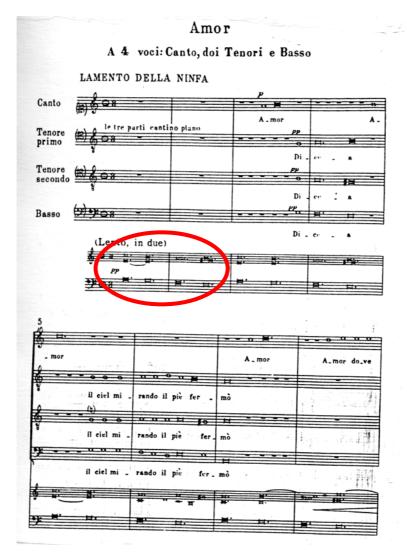
Marín, moreover, develops in a very original way another strong stylistic type of lament. The whole fragment is structured in two descendent tetrachords. The former goes from D to A (bars 1-4), and the latter descends from G to D (bars 5-8). The continuous repetition of those tetrachords gives an ostinato flavour to the movement. According to Ellen Rosand, the ostinati descendent tetrachords are a kind of emblem of the lament genre (cf. Rosand 1979 and 1980). Continuous ostinati also takes part in the rhetoric circle resources. Descendent tetrachord ostinato as a stylistic type of lamenti could be actualised by a variety of different tokens.

Stylistic types and tokens function similarly as the peircian type-token dichotomy. "A type is an ideal or conceptual category defined by features or a range of qualities that are essential to its identity... a token, on the other hand is the perceptible entity that embodies or manifests the features or qualities of the type" (Hatten 1994: 44-45). From the point of view of the enactivistic approach, types are based on direct (perceptual) or cultural (transmitted) knowledge of the world. They give prescriptions about how the embodied and embedded musical mind interacts perceptually and cognitively, mentally and physically with the objects it considers as tokens of this type. Both type and token are alternative phases of the same cognitive process (Lidov 1999: 118). This process has much to do with categorisation mechanisms, one of the leading subjects of recent musical cognitive research.4

It is possible to find one tetrachord ostinato in Amor, or Lamento della Ninfa by Claudio Monteverdi (Book VIII of Madrigals) (See ex. 3).

<sup>&</sup>lt;sup>4</sup> For an introductory study of categorisation in cognitive science see Gardner (1987) and Margolis and Lawrence (1999). The most important compendium of experimental research on categorisation is Lakoff (1987). Lakoff y Johnson (1999) develop a philosophical reflection derived from this research. Umberto Eco's approach to the theme is through





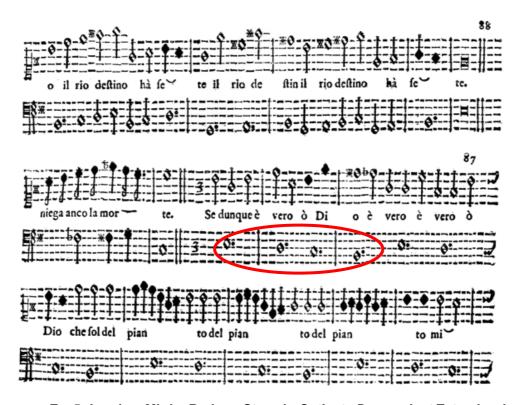
Ex. 3 Amor, or Lamento della Ninfa, by Claudio Monteverdi. Ostinato Descendent Tetrachord

In Dido's Lament by Purcell, we can also find a chromatic version of the descendent tetrachord ostinat (see ex. 4).



Ex. 4. and Figure 4. *Dido's Lament* by Purcell. *Chromatic Ostinato Descendent Tetrachord.* 

In Lagrime mie by Barbara Strozzi, it appears as a small section near the end of the song (see ex. 5).



Ex. 5. Lagrime Mie by Barbara Strozzi. Ostinato Descendent Tetrachord

Ellen Rosand claims that it is possible to find many different tokens for this *tetrachord ostinato* type. It could appear in chromatic versions, with inversions, suspensions, syncopations, or in an isolated way without repetition, with the overlapping of voices, of phrases, and with any kind of dissonances or alterations (Rosand 1980: 413). In *Ojos pues me desdeñáis*, Marín proposes an original token of the *lamento's* stylistic type *descendent tetrachord ostinato*. Its main characteristics are twofold: 1) it appears in the main voice and not in the bass line; and 2) its fragmentation in two different tetrachords gives it a pseudo *ostinato* character.

## 2.2. Sentencia 2: the refrain.

If in the first section we found a melancholic mood, a depressed atmosphere and pseudo obsessive thoughts, in Section 2 we can see very interesting movement in the affect qualities of the song. With the text *Look not on me/ for I am loath that thou shouldst see/ how thou killest me,* the lover admits he is scorned by his beloved. However, in a fictitious dialogue with her, he recovers his dignity and pride, saying: "OK. I admit it: I am dying for your love: you are killing me. But I will not allow you to see how I suffer for you". This kind of reaction is supported by the music in the following way:

The bass line begins to move in a imitative style. We find some persistence in melodic design by descendent fourths but also we can perceive fourths in ascendant motion. An inflexion to F major occurs in bar 21. Also, the bass line transforms its rhythmical structure from a trochaic foot to a tribach one. A dotted rhythm appears in bar 22. Iambic rhythms (short-long) appear as a kind of inversion of the trochaic rhythm of the introduction (long-short). This figure is a *antimetabole* or *hipallague* (cf. López Cano 2000, 200-201 and 206-207) and expresses contrary ideas. In bars 24 and 25, the movement suggests a cadence to D minor. However, after the A major chord, we find a violent rupture of the movement. This is called *ellipsis* (cf. López Cano 2000, 194-5): the broken cadence avoids D minor and introduces directly G major as dominant of C.

But the most important feature of this part is surely the ascendant progression of perfect cadences V-I in the repetition of the words "el ver" (b. 27-32). This is known in musical rhetoric as *gradatio*. In this section the voice achieves the highest pitch of the whole work (*hyperbole*) in a strong contrast with the slow and lower voice of the introduction (see ex. 1).

This is a vehement passage of reactive fury. In the *lamento* tradition we observe other examples of this kind of reaction to pain (see ex.6.).



Ex. 6. Lamento de Arianna, by Claudio Monteverdi. Reactive fury



Moreover, in this fragment we note other important features: we notice the ascendant progression in the voice that does not move simultaneously with the guitar *gradatio*. There is asynchrony between both movements. The voice goes ahead of the guitar movement. To play *insieme*, the voice should have waited for one beat, and moreover it should have fallen to C in the first beat of bar 28. However, it did not wait for its proper moment and, to the contrary, rushed directly to the third beat of bar 27. This sequence shows this kind of "aphasia" (see ex. 1).

This manner of bringing forward an event is called *anticipatio notae* and it is not uncommon in *lamento* songs (see ex. 2)

Anticipation is a symptom of the principal affect that governs the voice: in the same way that the pitch jumps from its proper place, Arianna also in *Ojos pues me desdeñáis* loses her poise, her self-control. Kierkegard taught us that anticipation of future events is a symptom of the anxiety and anguish.

## 2.3. Sentence III: taking it easy.

The third section is less easy to understand within European lament tradition. In this section we cannot easily find *tokens* of *stylistic types* of *lamento* genres. One of the reasons for this is the strophic structure of this section: there are different words sung with the same music. In this case, the link between words and music changes. In my opinion, this section shows one of the main features of the art song 17<sup>th</sup> Century Hispanic culture: humour, irony and a special way of hiding true passion (cf. López Cano 2001a and 2001b and Aktories and López Cano 2002).

The words of the first strophe communicate something like this: "Dear 'eyes', please do not send me more suffering, as when you disdain me, you lose your beauty and become ugly." The music belongs to a strong *musical topic* of dance (it seems like a italian chaconna but I have not identified yet the correct dance type) (see ex.1.).

In my opinion, the music in this section tries to eliminate the painful dimension achieved in the song. The voice wants to diminish its own pain: "you don't love me but I don't care". However, in bars 10 to 18, a critical moment occurs in the dance movement: a descendent *gradatio* with chromatic steps (*Pasuus duriusculus*) and strong dissonances as false relations (B-H, bar 10) and fourth augmented and fifths diminished (see ex.1.).

This moment recalls the real pain in the voice. But, quickly, in the following bars, it tries to recover the "calm" of the dance air (see ex.1.).

Following this section, the song returns to Section 2, the reactive process to fury. The whole expressive process of the song could be depicted as shown in **figure 1**.



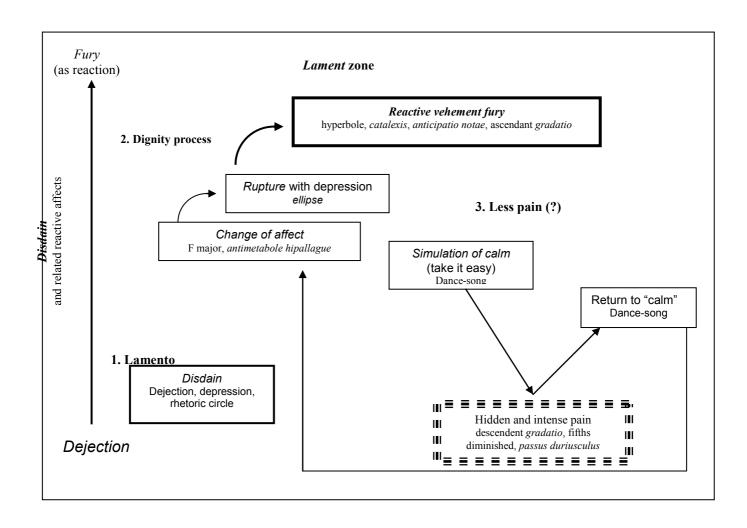


Figure 7. Expressive movement in Ojos pues me desdeñáis.

## 3. Stylistic types.

The results of this analysis allow us to extract some important conclusions about the nature of *stylistic types*. They are not structural matrices or simple collections of specific traits, neither are they stocks of general rules for the production of specific *stylistic tokens*. Similar to Umberto Eco's notion of *cognitive types* (1999), stylistic types are enormous cognitive databases destined to help musical competence to categorise correctly (or effectively) musical objects. They also give instructions for the recognition and identification of stylistic tokens, as well as instructions for establishing adequate strategies and operations for developing ulterior cognitive processes. According to recent interactive cognitive theories such as the *Autopoiesis* theory (Maturana 1995-1996 and Maturana and Varela 1980), the *enactivistic* cognitive approach (Varela, Thomson and Rosh 1992), or Lakoff and Johnson's *metaphor* and *embodied mind* philosophy (1980 and 1999), the construction of *cognitive types* for objects in the human mind is closely related to the way in which we interact physically and cognitively with them. This includes body interaction with musical objects (López Cano 2002g and 2002h).

According to theses approaches, I propose the following hypothesis about the possible nature of stylistic types, their modes of being and the information they contain:

- Iconic relations: Stylistic types can prescribe iconic relations between types and tokens, not according to a sufficient and necessary list of properties but in correspondence of prototypes.<sup>6</sup> They could be mental images, iconic translations of abstract phenomena, Marr's 3D images (Marr 1985), general reproductions of morphological features (or salient traits) and also products of propositional rules and instructions (see below).
- Schemata: frames and scripts, flow charts, body action sequences, narrative sequences and networks of complex actions (as perceptive actions).
- Instructions: systems of propositions, orders and instructions to guide the competence to
  activate correct strategies or processes, to put in action ready-made routines or to "invent"
  emergent strategies to explore rare tokens.
- Sinaesthesic information: cognitive types and multimedia sources of information, thymic elements, smells, tactile, kinetic and thermal qualities.
- Interactive possibilities: Affordances: (according to Gibson's ecological perceptual vision approach) they are the "performances" (services) of the object: what does the object invite us to do with it?

## 4. The role of musical rhetorical figures:

Musical rhetorical figures are not elements of a lost code we have recovered to understand the correct signification of baroque music in a philological way (López Cano 2002c).

<sup>&</sup>lt;sup>6</sup> For an introduction to prototype theory, see Matrinelli (2002). See also the detailed study by Lakoff (1987).



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<sup>&</sup>lt;sup>5</sup> This concept was introduced by Robert Hatten (1994). In this paper I pretend to explore the cognitive *enactive* nature of this concept.

They are one part of a whole of information contained in the cognitive stylistic types: a trace of complexes iconic translations developed by the musical mind to expand its understanding capacities. They are one of the first ways by means of which musical theory begins to name stylistic types and the intersemiotic operations of musical competence. Musical rhetorical figures could be considered as a part of the nuclear content of Stylistic types. In Eco's terms, the nuclear content of one cognitive type is the stock of interpretations produced by culture in order to make public the hidden information contained in cognitive types.

## 5. The layers of musical semiotic competence activity in vocal music.

In Sections 1 and 2, we saw a constant appearance of stylistic types of Italian and European lamento genre. However, in the third section things changed. The use of a dance type as a way to hide real affects, and the introduction of depressive moment in order to reveal them could be considered as a Stylistic type of Spanish art song from the Baroque. We can also consider it as a special way of interaction of words and music not prescribed by any lyrical genre. This is an important issue not satisfactorily resolved by semiotic studios of vocal music. Let us consider some leading ideas about vocal music in musical semiotic studies.

The Belgian linguist Nicolas Ruwet (1972) put on the table two of the main questions about vocal music:

- 1. The relationship between word and music is dialectic. One does not assimilate the other, nor do both express the same. Their interactions could go from intersemiotic convergence to contradiction.
- 2. Vocal music signifies the collision of two "semiotic systems", but, it produces another reality, a third semiotic system more complex and at variance with its two components.

Unfortunately, the epistemological limitations of the ruwetian structural semiolinguistic approach prevents him from going further in this basic idea.

Gino Stefani (1976), for his part, developed this ideas as follows:

- 1. Intersemiotic dialectic between words and music is an inter-interpretative semiotical relationship. Music does not limit itself to translating the meaning of words as following the tradition of word painting. Both music and words, each in its own time, interprets the signification of the other. Each of the respective semiotics intervenes in the realm of the other to conform the global meaning of the song.
- 2. Intersemiotic counterpoint<sup>7</sup> produces a kind of tertium quid, global and unified semiotics of the song. This tertium deals with the lyrical genre to which the song belongs. The genre prescribes the way by means of which music and words are articulated into a specific song.

The problem with Stefani's approach is its slavery to the notion of code. Large lists of rules and codes cannot explain musical semiosis.8 As a result of Stefani's use of the code

<sup>8</sup> One of the main contributions of Stefani to musical semiotics is his *Theory of musical competence*. This fine and fundamental contribution has been based on Umberto Eco's codes theory. But there is one historical and theoretical paradox: Stefani's musical competence theory was first published in 1982. Two years later, in 1984, Eco published his Semiotic and the philosophy of language. The last chapter of this book is a rigorous self-critique of his own code theory.



<sup>&</sup>lt;sup>7</sup> This term is mine.

oncept and his resistance to making considerations about style, he is unable to resolve the following paradox: on one hand, the lyrical genre determines how music and words must be articulated in a song belonging to that genre; but on the other hand, according to Stefani, the intersemiotical activity between words an music in every single song produces the tertium. The tertium, understood as a global semiotic of song, is simultaneously both the product and the generator of the intersemiotic counterpoint in vocal music.

I shall try to resolve this problems in my own approach to vocal music. My theory rests upon the concept of musical competence. In general terms, I understand it in the same way as Stefani: "the inner ability to produce sense with or about music". However I believe that competence is a kind of operative force which leads to action: cognition is action, mental but also physical action. Musical semiosis is also action: the sign production. It could be oriented or constrained by social rules or peircian habits, but it is always a creative sign production. Do things like codes exist? Yes, but in a metaphorical way: I prefer to see them not as strict rules that competence must apply mechanically, but more like limits, border lines, or frontiers which constrains creative competence activity.

Musical competence in the case of vocal music works through different layers of action according the Figure 2. (see I envision three main layers in vocal music semiosis (cf. López Cano 2001a, forthcoming and Aktories and López Cano 2002). The first is a layer of autonomous semiotics. The second is an intersemiotic counterpoint zone: the semiotic interplay between words and music. The third is a zone of the teritum quid: the unified semiosis. Competence does not travel from "basic" layers to others: it works at the same time in all possible layers. The music-mind works in a complex parallel system. It could work profoundly, in any of the three layers, to produce understanding, depending on the level of knowledge possessed by the subject in each of the different areas (López Cano 2002d).

In this sense, the musical mind could search within instrumental genres (music as autonomous) or in its literary competence (words as literature), elements to construct semiosis over the vocal work. The lower levels of assimilation between words and music have only a theoretical existence. The real intersemiotical counterpoint between both occurs not in direct relationships, one by one, between them, but when one of them (or maybe both) is able to establish a strong basic topic (musical topic, literary topic or lyric topic). Topic is a concept that existed in musical theory from the times of musical rhetorics theories. Recent studies in musical semiotics has developed profoundly this notion. In other articles, I have reconstructed several theoretical dimensions of this concept (López Cano 2002e and 2002f). In my theory, musical topic is much more than a thesaurus of characteristic figures, or a communicational surface structure, or a musical reference or complex signs.9

the *competence* concept (!). See López Cano (forthcoming) for further remarks of this.

9 Leonard Ratner (1980) defines topics as "subjects of musical discourse". They appear as a form of thesaurus of characteristic figures developed by music contact with "worship, poetry, drama, entertainment, dance, ceremony, the military, the hunt, and the life of lower classes". "Topics appear as fully worked-out pieces i.e. *types*; or as figures and progressions within a piece, i.e., *styles*" (1980: 9). Eero Tarasti (1994: 26) considers topics as typified structures of communication at the level of the surface narrative program. Kofi Agawu (1990) defines topic in terms of a saussurean sign: topic is a signifier correlated with the signified. The signifier is a certain disposition of the musical dimension of melody, harmony, metre, rhythm, and the like; the signified is a "conventional stylistic unit (fanfare, Sturm und Drang,

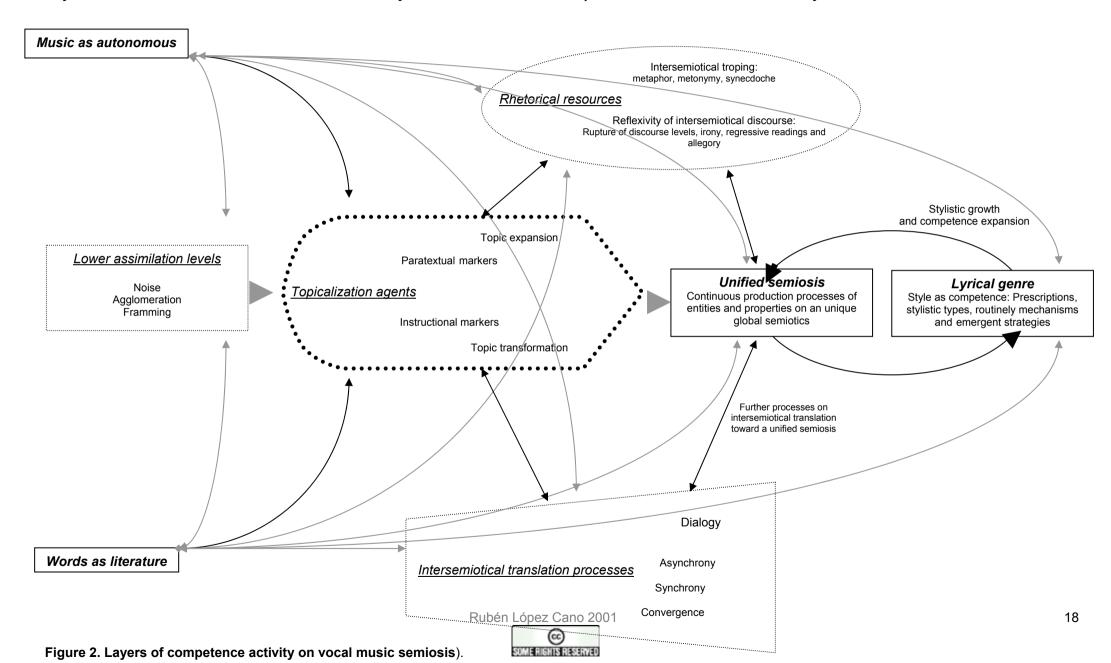


Eco proposes going beyond the limits of the notion by employing of two main concepts: the encyclopaedia notion and

Layer 1: autonomous semiotics zone

Layer 2: intersemiotical counterpoint zone

Layer 3: unified semiosis zone



A musical topic emerges when musical competence is able to create a whole world around one musical fragment, or an entire work, into which it inserts the music. It is the cognitive route we have selected to understand music. It is a kind of constrained cognitive area within which musical competence works. This task environment determines the strategies and processes by means of which musical competence must be established to work in both a creative and a socially regulated way.

Intersemiotical interaction in vocal music produces different topical phenomena: paratextual marks and instructional markers occur when one isolated element in words or music gives instructions for the correct interpretation of one element of the other semiotic (music or words). Topic expansion and transformation are produced when the intersemotical action changes the main semiotic properties of the topic. The emergence of unified semiotics is derived directly from this topical work. However, two other classes of intersemiotical phenomena intervenes. 1. Intersemiotic translations: when words and music expresse the same, or collaborate with similar strategie; and 2. Rhetorical processes: when a not-coincidence in these strategies produces intersemiotical tensions. In such cases, the work begins to require special understanding strategies and emergent processes arise from common mechanisms.

Not only do these layers and processes contribute to building the tertium guid or unified semiosis. Lyrical genres understood as stylistic competencies also provide pertinent elements as prescriptions regarding how music and word could be ensembled in vocal works belonging to this genre. However, each musical work is unique and original and it is impossible to predict how a specific work will use the prescriptions of genre rules. Between lyrical genres and the unified semiosis of each song, a circular process of stylistic growth and competence expansion occurs.

This is my hypothesis as to how the paradox of tertium quid as the ubiquitous producer and product of intersemiotical play between words and music in vocal music can be resolved.

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#### References:

AKTORIES, Susana y LOPEZ CANO, Rubén (2002) "On interpreting the song No piense Menguilla Ya: Intersemiotic functions and semiotics layers"; Procedings of 7th International Conference on Musical Signification; Imatra, Finland, June 7-10, 2001 (en prensa).

DeBELLIS, Mark. 1995. Music and Conceptualization. New York: Cambridge

University Press.

ECO, Umberto (1990) Semiótica y Filosofía del lenguaje; Barcelona: Lumen (1ª edición 1984).

(1999) Kant y el ornitorrinco, Barcelona: Lumen (1ª edición 1997).

FIGUERAS, Montserrat; LISLEVAND, Rolf (1998) José Marín (1618-1699), Tonos Humanos; Bellaterra: Alia Vox; CD AV9802

GARDNER, Howard (1987) La nueva ciencia de la mente; Buenos Aires: Paidós (1ª ed. 1985).

GIBSON, James (1979) The Ecological Aproach to Visual Perception; Boston: Houghton Mifflin.

HATTEN, Robert (1982) Toward a Semiotic Model of Style in Music; Ph. Diss.; Indiana: Indiana University.

(1994) Musical Meaning in Beethoven. Markedness, Correlation, and Interpretation. Bloomington: Indiana University Press.

LAKOFF, George (1987) Women, Fire, and Dangerous Things; Chicago: Chicago University Press. LAKOFF, George y JOHNSON, Mark (1980) Metaphors We Live By; Chicago: University of Chicago Press.

(1999) Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought; New York: Basic Books.



LIDOV, David (1999) Elements of Semiotics; New York: St. Martin's Press.

LÓPEZ CANO, Rubén (2000) Música y retórica en el Barroco; México: UNAM.

\_\_\_\_(2001a) Semiótica y retórica en los Tonos Humanos de José Marín; Memoria de investigación doctoral; Valladolid: Universidad de Valladolid.

\_\_\_\_(2001b) "Los tonos humanos como semióticas sincréticas"; Campos interdisciplinares de la musicología; LOLO, Begoña (ed.); Vol. II; Madrid: SEdEM; pp. 1167-1185.

\_\_\_\_(2002a) "Cuando la música cuenta. Narratividad y análisis musical en una canción del siglo XVII"; Actas del V y VI Congresos de la Sociedad Ibérica de Etnomusicología, Barcelona: SIbE; pp. 191-210.

\_\_\_\_(2002b) "Tonos humanos y análisis musical: una asignatura pendiente"; La ópera en España e Hispanoamérica, CASARES, Emilio y TORRENTE Álvaro (eds.); Madrid: ICCMU; pp. 193-203.

\_\_\_\_(2002c) "Bases semióticas para una Neorretórica musical"; Interdisciplinareidad y postmodernidad de la retórica; México: Instituto de Investigaciones Filológicas (UNAM). (en prensa). On line version in http://www.geocities.com/lopezcano/

\_\_\_\_(2002d) "From Rhetoric to Semiotic: Intersemiotic Forces, Topics and Topicalization on 17th Century Spanish Art Song"; Musical semiotics revisited; Heksinki: Universidad de Helsinki. On line version in <a href="http://www.geocities.com/lopezcano/">http://www.geocities.com/lopezcano/</a>

(2002e) "The Expressive Zone: Frames, topics, attractors and expressive processes in 17th Century Hispanic Art Song"; *Procedings of 7th International Conference on Musical Signification*; Imatra, Finland, June 7-10, 2001 (en prensa) On line version in http://www.geocities.com/lopezcano/.

(2002f) "Entre el giro lingüístico y el guiño hermenéutico: tópicos y competencia en la semiótica musical actual"; Revista Cuicuilco. Número especial: semiótica de la cultura (en prensa) On line version in http://www.geocities.com/lopezcano/.

\_\_\_\_(2002g) "Favor de no tocar el género: géneros, estilo y competencia en la semiótica musical cognitiva actual"; Actas del VII Congreso de la SibE (Museo Nacional de Antropología, Madrid, 27-29 de junio de 2002); Barcelona: SibE (en prensa) On line version in http://www.geocities.com/lopezcano/.

(2002h) "Dancing with the enemy... and into the hypertext"; Proceedings from Music and Media Research Group meeting (June 9-16, 2002) Imatra: ISI (forthcoming).

Forthcoming An enactivistic semiocognitive theopry for vocal music. Ph. Diss. University of Helsinki.

MARGOLIS, Eric and LAURENCE, Stephen (eds.) (1999) Concepts: core readings; Cambridge, Massachusetts: MIT Press.

MARR, David (1985) Visión: una investigación basada en el cálculo acerca de la representación y el procesamiento humano de la información visual; Madrid: Alianza.

MARTINELLI, Dario (2002), How musical is a Whale?; Helsinki: ISI.

MATURANA, Humberto (1995-1996) La realidad: ¿objetiva o construida?; Il vols. México y Barcelona: Anthropos, Universidad Iberoamericana, ITESO.

MATURANA, Humberto y VARELA, Francisco (1980) *Autopiesis and cognition; the organization of the living*; Boston: Reidel.

MINSKY, Marvin (1975) "A framework for representing knowledge" en WINSTON, Patrick ed.; *The Psicology of computer vision*; Nueva York: Mc Graw-Hill.

\_(1985) The society of mind; Nueva York: Simon & Schuster.

REYBROUCK, Mark (2001) "Biological roots of musical epistemology: functional cycles, *Umwelt* and enactive listening"; *Semiotica* 131 1/4.

ROSAND, Ellen (1979) "The Descending Tetrachord: an Emblem of Lament"; Musical Quarterly 65; pp. 346-59.

\_\_(1980) "Lamento"; The New Grove Dictionary of Music and Musicians; vol. 10; pp. 412-14.

RUWET, Nicolas (1972) Langage, musique, poésie; Paris : Du Seuil.

SCHANK, Roger y ABÉLSON, R. P. (1988) *Guiones, planes, metas y entendimiento*; Barcelona: Gedisa; (1ª edición 1977).

SONESSON, Göran (1988) Methods and Models in Pictorial Semiotics; Report 3 from the project Pictorial menings in the society of information; Lund: Lund University; ms.

STEFANI, Gino (1976) Introduzione alla Semiotica della musica; Sellerio; Pallermo.

\_\_(1982) La competenza musicale; Bolonia: CLUEB.

TARASTI, Eero (1994) A Theory of Musical Semiotics; Bloomington and Indianapolis: Indiana University Press.

\_\_\_\_(2001) Existential semiotics; Bloomington and Indianapolis: Indiana University Press.

(2002) Sings of music; Berlin: Mouton de Gruyter.

VARELA, Francisco (1988) Conocer. Las ciencias cognitivas: tendencias y perspectivas. Cartografía de las ideas actuales; Barcelona: Gedisa.

VARELA, Francisco, THOMPSON, Evan y ROSCH, Eleanor (1992) De cuerpo presente. Las ciencias cognitivas y la experiencia humana: Barcelona: Gedisa; 1992.

ZBIKOWSKI, Lawrence (1995) "Theories of Categorization and Theories of Music" Music theory on line 1/4.

\_\_\_\_(1997) "Conceptual Models and Cross-Domain Mapping: New Perspectives on Theories of Music and Hierarchy," *Journal of Music Theory* 41/2; 193-225.

\_\_\_\_(2002) Conceptualizing Music: Cognitive Structure, Theory, and Analysis; (forthcoming) Oxford University Press.

