

## 1. Experience of music as "experientiality"

1. Music can tell. Numerous studies have demonstrated this, especially those of Eero Tarasti and Márta Grabócz, to mention only the great pioneers in this field. However, they agree that *music cannot* tell stories.<sup>1</sup> For this reason, music has often been considered as non-narrative.<sup>2</sup> Yet music fills almost all the other conditions of narrativity.<sup>3</sup> And above all, one that is not immediately obvious *a priori*: it is the subject of this paper.

I set out with two premises:

(1) It is precisely because music is not narrative in a linguistic sense that it can provide new insights to general narratology. Music can do this with its special features.

(2) Music is narrative because it is the "experientiality of consciousness." I use here a concept developed by Monika Fludernik in *Towards a 'Natural' Narratology* (1996). (On the concept of experientiality, see also Caracciolo 2013, 2014: 230–236; Alber and Fludernik 2011; Marty 2011.) "Natural" in this context does not refer to "nature" but to "the life of every day," to "real-life experience":

My use of the concept of the 'natural' relates to a framework of human embodiedness. It is from this angle that some cognitive parameters can be regarded as '*natural*' in the sense of 'naturally occurring' or 'constitutive of prototypical human experience'. The term '*natural*' is not applied to texts or textual techniques, but exclusively to the *cognitive frames* by means of which texts are interpreted. [...]. Readers actively construct meanings and impose frames on their interpretations of

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<sup>1</sup> Generally, "the minimum requirement for talking about narrative is that there is transformation of an object or a state into another and that this occurs within a certain period of time," and "it is in the terms of an abstract plot that we should consider the meaning that a work attempts to give us": the issue is not "to demonstrate that music is able to tell specific stories, but rather to set out in what the musical structures can be associated with narratives" (Tarasti 2007: 209). Or: "We call musical narrativity the mode of organization of the signifiers within a musical form" (Grabócz 2007: 241) (All translations from the French are my own.) See also Almén (2008: chap. 2).

<sup>2</sup> For example: "the narrativity of music is a purely analytical construct situated, cognitively, on a very different level than the narrativity of language, film, or even pictures because it can exercise its power without being consciously recognized" (Ryan 2012: 35). Also Alber and Fludernik (2011): "paintings and music can only occasionally be narrativized." Hence these "aesthetic products lack crucial elements of experientiality in what they are able to represent (most types of music are perhaps not able to represent anything at all)" (30).

<sup>3</sup> Particularly Revaz (2009: 75–82, 100). Revaz proposes to distinguish a set of common properties: "a representation of actions, a chronological order, a transformation (reversal) between the initial state and the final state, a causal chain, an unusual or unpredictable development of the action."

texts just as people have to interpret real-life experience in terms of available schemata. [...]. Unlike the traditional models of narratology, narrativity (i.e. the quality of *narrativehood* in Gerald Prince's terminology) is here constituted by what I call experientiality, namely by the quasi-mimetic evocation of 'real-life experience'. (Fludernik 1996: 12)

This understanding of narratology is part of the so-called postclassical narratology whose main development, compared to "classical" (structuralist) narratology, is the attention brought to the reader in his cognitive relationship with the text.

2. I define the concept of "experientiality" in three points (cf. Fludernik 1996: 12–13, 26–30).

(1) The reader understands a text *according to a pre-existing interpretative framework, that of real life*. A text is narrative in this way not because of a story, but because it refers to the experience of real life ("real-life existence"), fitted into a particular space and a particular time:

I here argue that *narrativity is a function of narrative texts and centres on experientiality of an anthropomorphic nature*" and "[a]ctants in my model are not defined, primarily, by their involvement in a plot but, simply, by their fictional *existence* (their status as *existents*). (26)

(2) Thus, a fictional character is understood by the reader from his own experience of real life, so that *this character is understood as a consciousness*: like the reader, this consciousness acts, speaks, thinks, perceives, and is moved, in interaction with the world around him.

(3) It is "the emotional involvement with the experience and its evaluation [which] provides cognitive anchor points for the formation of narrativity" (13); "[a]ll experience is therefore stored as emotionally charged remembrance." (29)

This experience most often, though not necessarily, takes the shape of a *plot*:

Human experience typically embraces goal-oriented behaviour and activity, with its reaction to obstacles encountered on the way. [...] This unexpected occurrence indeed dynamically triggers the reaction of the protagonist, and it is this three-part schema of 'situation-event (incidence)-reaction to event' which constitutes the core of all human action experience. (29)

On this basis, Fludernik defines narrativity as the experience of a consciousness which is understood by the reader according to his own experiences: "narrative is the one and only form of discourse that can portray consciousness, particularly *another's* consciousness, from the inside" (27). This is an anthropomorphic narrativity: we recognize what other lives, fictional characters or not, by what *we* live and feel, what constitutes our own human nature.

I wish now to make two comments on these points:

(1) One is that the limits of such a definition must be marked: narrativity can be identified and analyzed according to “objectively structural features” (Revaz 2009: 74), such as, for example, topics in music.<sup>1</sup>

(2) The other is that this definition must further be clarified: cognitive narratology is often confined to what is narrated, to what is represented, while the essential thing for reader also is in experiencing, or experientiality. Narrative is the movement of “real-life experience” through consciousness.

3. The hypothesis I adopt here is that the experience of music is a *lived experience* through consciousness: experientiality. I examine this hypothesis according to three perspectives that approach musical reality from different angles. Developed more fully in what is to follow. These perspectives will also contribute to narratological theory more generally.

(1) The *process of actualizing* the text by the reader (in the broadest sense of these words “text” and “reader”). This is a process of experientiality for several reasons: at the diachronic level, with “narrative tension”; and at a synchronic level, with the “feeling of unfolding.”

(2) The original narratological status, both musical performer and musical performance, insofar as music can only be *heard*, can exist only when it is played, *performed* by one or more persons; hence, the inevitable presence in the musical experience of *places*, objects, bodies, consciousnesses.

(3) The musical emotion in which a very different form of narrator takes part. I appeal here to the concept of “persona,” but in a way that has nothing to do with the “author” or “implied interpreter.” This leads me to introduce the concepts of “affective attunement,” “empathy” and “emotional contagion,” particularly through the phenomenon of mirror neurons.

We will see that these points of view are inextricably interlinked and that each is dependent on the other.

## 2. The actualization process of the music by the listener

4. We must be able to *actualize* what happens to us in order to turn it into an experience. This actualization process is clearly described by Raphaël Baroni in his work on “narrative tension” (2007, 2010), a principle that Baroni has also applied to music (2011). According to him, it is narrative tension that gives rhythm to the plot, contrasting strong and weak beats, *tension* and *resolution*. It is narrative tension that

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<sup>1</sup> Cf. Fludernik (2003: 244): “Narrativity, according to my model, is not a quality adhering to a text, but rather an attribute imposed on the text by the reader who interprets the text as *narrative*, thus *narrativizing* the text” (qtd in Revaz 2009: 74).

allows the reader (or the listener) to be interested, surprised, intrigued by the plot and that he actualizes cognitively and affectively.

This is the central point: *the strong interaction between reader and text through plot* ("reader" and "text" being considered here in the broad sense). However, this interaction includes yet another aspect: *intentions*.

Regarding intention, I refer now to the following:

(1) A chapter in Jean-Marie Schaeffer's *Petite écologie des études littéraires* devoted to intentionality (2011: 83–103), where it is argued that "the principle of intentionality is part of the process of understanding" (90). Schaeffer continues, stating that intentionality

is simply the constitutive rule of understanding and meaning. Reading (that is to say, understanding what you are reading) is to give a meaning to a chain of graphic characters, and to give a meaning to a chain of signs it is to establish it in an expression of an intentional content, that only mental states and actions can achieve. (90)

(2) Alessandro Pignocchi's *L'œuvre d'art et ses intentions* (2012), based on recent work in cognitive science, which demonstrates that we always look for intentionality in a work of art: "even if we wanted to disregard any attribution of intentionality, we could not" (Schaeffer 2012: 10). At issue are not real intentions, but intentions we assign more or less consciously to the author. It is from the clues identified in the work that we try to reconstruct the author's intentions. Pignocchi refers to the "relevance principle" developed by Dan Sperber and Deirdre Wilson, which explains that "every utterance includes in itself the guarantee of its own relevance (cf. Reboul and Moeschler 1998, chap. 3: "L'héritage de Grice et la pragmatique cognitive"). This view of intentionality also incorporates another factor: the mirror neuron mechanism. The phenomenon of mirror neurons was discovered in the 1990s, in particular by Giacomo Rizzolatti and his team (see Rizzolatti and Sinigaglia [2006] 2011, and, for an overview, Rizzolatti and Destro 2008). The basic principle is easy to grasp: when we watch someone perform an act, mirror neurons, which are located in the prefrontal cortex motor, discharge as though we ourselves were performing this act. The same for the sounds we hear or for the dance we watch (cf. Hyman 2012; Kohler et al. 2002; Becker 2010: 40–45). Our motor system – *action* – and our sensory functions – *perception* – inform each other mutually. In other words, seeing and hearing are *acting*.

From the beginning, the term used has been "mirror neuron system." However, Rizzolatti declared during a lecture given in November 2010 that it would be more accurate to speak of mirror neurons in terms of *basic mechanism* of the nervous system: present in different parts of the brain, while maintaining a direct connection between sensory information and motor activation, its specific function changes according to the area in which it is located. (qtd in Sofia 2011: 238–239)

Hence the title of Rizzolatti's lecture: "The mirror mechanism: a neural mechanism for understanding others."

I will return later to some of the numerous implications of this discovery. Here I mention only one of these implications, highlighted by Marco Iacoboni and his team (2005): the mirror neuron mechanism enables one to construe the intentions of others in a given context. As they explain,

there are sets of neurons in human inferior frontal cortex that specifically code the "why" of the action and respond differently to different intentions [...] [t]o ascribe an intention is to infer a forthcoming new goal, and this is an operation that the motor system does automatically. (Iacoboni et al. 2005: 0005)<sup>1</sup>

Above all, *it is from the motor acts repertoire at our disposal that we understand what we see, what we hear, that we understand the actions and the intentions of others.* This concerns both language and music, as demonstrated by a study of Istvan Molnar-Szakacs and Katie Overy in their article "Music and mirror neurons: from motion to 'e'motion" (2006). It is also argued that music has always been associated with *action*. It is thanks to the mechanisms described above that we are able to access the experience of others. It is also by these means that we are able to experience a musical work, based on our own experience of the world, our own repertoire of motor actions, our own "experientiality": "[t]his dynamic tension between the experiences that recipients attribute to characters and their own experience is, in my view, constitutive of experientiality" (Caracciolo 2014: 236; see also 231). It is in this way that the mirror neuron mechanism feeds the interactional process of actualizing the text (broadly defined) by the reader.

5. This actualization, which involves interaction between the reader and the text, also requires *intensity*. Indeed, intensity is "the heart of the plot" (Baroni and Corbellari 2011: § 7) and is associated with "the sensed imminence of a settlement to come" (Baroni 2007: 31): *intensity as tension before resolution*.

Intensity also derives from what Daniel Stern calls "forms of vitality," a phenomenon which is important in art, particularly in music, and in human relationships generally. Forms of vitality are neither emotions (Stern [2010] 2010: 40–42) nor sensations nor cognitive states. They are "more form than content," "energy," "a felt experience of force (motion)" with "a particular temporal profile," "one direction." To define this concept, Stern provides a list of words such as "explode," "inflate," "stretch," "accelerate," "powerful," "still," "strained" "ephemeral," etc. (17). These words, he claims,

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<sup>1</sup> This study has been used in part by Rizzolatti and Sinigaglia ([2006] 2011: 138–141). See also Fogassi et al.: "Because the monkey knows the outcome of the motor act it executes, it recognizes the goal of the motor act done by another individual when this act triggers the same set of neurons that are active during the execution of that act" (2005: 665). This study has been used in part by Rizzolatti and Sinigaglia ([2006] 2011: 121–124). See also Mukamel et al. (2010) and Oztop, Kawato and Arbib (2012).

reflect a felt experience of strength (in motion) with a temporal profile (and energy) directed towards something. They are connected to no content. They are more form than content. [...] For me, the dynamic forms of vitality are the most fundamental of all the experiences that one can feel through an interaction with other persons in motion. (17–18)

For Michel Imberty, these forms are “felt,” they “provide a thickness for the moment, for the present action or the emotion in progress” (2005: 195).

But above all, forms of vitality transform the content into dynamic experience (cf. Stern [2010] 2010: 34–38). Moreover, they give a dynamic contour to the nodes that punctuate narrative tension, and they increase the number of these nodes of tension by playing upon every possible parameter, sometimes even on micro-moments. In music, “activation and excitation variations” may emerge with a change of intensity, rhythm or tempo, an accent, a tie, etc. (104–107).<sup>1</sup> In this perspective, Imberty suggests analysis of works by Debussy, Webern and, above all, of Schoenberg's *Erwartung* (210–232). The music of Hugues Dufourt, for example, can also be addressed in this way, as shown by Jan Pasler, even though she does not refer explicitly to forms of vitality: rather, she adopts terms like “range of tempi,” “spectrum of speeds, of turbulences,” “teetering spaces,” “overhanging structures,” “interwoven axes and loops” (2011: 199). The same goes for the theoretical texts written by Dufourt (e.g., 2006, 2009, 2010).

To recap, the following points about forms of vitality should be noted:

(1) Their “metamodal” nature, since they do not belong to any “specific sensorial modality, but to all (vision, hearing, touch, etc.)” (Stern 2010: 38, 103).

(2) Their twofold narrative potential, since they dynamize the narrative at the same time as they engender points of micro-tensions, which themselves have a temporal profile.

(3) Their capacity for opening up musical experience in all of its dimensions, thanks to their energy and to their bodily and physical reality. They also convey contents such as emotions and their directionality as well as the feeling of space they create (Stern 2010: 12–13). Further on, we will discuss the argument that forms of vitality are a key factor in experientiality.

6. Not everything, however, is narrative. Mirror neurons and forms of vitality do not bear exclusively on narrative, and they may even impede or threaten narrative.

According to Jean-François Bordron (2012a), diachronic narrativity is crossed by a “synchrony of sensation” which is also “temporal.” Levels of temporality can interact without being described as successions. Hence the notions of “unfolding” and “forming” to indicate a “disposition toward something,” but with no resolution in

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<sup>1</sup> See the chapter in Stern's book entitled “Le problème du codage de l'expérience des formes de vitalité dans la musique, la danse, le théâtre et le cinéma” (2010: 104–125: dance, 107–113; drama, 114–119; film, 119–125).

the narrative sense (for further developments, see also Bordron 2012b). Indeed, narrativity does not control everything, and a mere inflection of voice (a form of vitality) can change everything in terms of effect, even suspending the narrative for a short time. In music, *sound* and *timbre*, by their very nature, illustrate this thickness, this “synchrony of sensation” which cannot be completely domesticated, even by a narrative logic.

This “synchrony of sensation” is what Daniel Charles calls “the noise of form,” present in all music, which “resound[s], in an uninterrupted murmur, the noise of the world, the very rustling of what is” (2001: 110). Hence a form of narrativity is present in sound itself, like a level of temporality nested in the unfolding of sound... One particularity of music is that for this network of forces and forms to exist, someone has to *perform* it. And I say “who *performs* it” before saying “who *interprets* it.”

### 3. The original narratological status of the musical narrator

7. In music, the performer is at once receiver and narrator:

(1) Receiver, because he offers his vision of a work, his *interpretation* of it. The study of that interpretation may be the subject of a hermeneutics of musical reception, comparable to answering questions relating to a particular self-understanding (cf. Hauer 2007).

(2) Narrator, because *it is he who speaks*, who speaks *in the name* of the work, who *speaks from inside* the work. And as narrator, in particular, he is the performer who gives form to the work, who gives form to its specific events. The performer is even a necessary condition: in music, without *performing*, or narrating, *there is no real work*. It is thus the performer who fulfils all the functions usually assigned in general narratology to the narrator. In this regard, I refer in particular to two articles in *the living handbook of narratology*:

(1) “Narrator,” by Uri Margolin (2012: esp. par. 1–9): “the narrator can be envisioned as a fictional agent who is part of the story world and whose task it is to report from within it on events in this world which are real or actual for him” (9).

(2) “Mediacy and Narrative Mediation,” by Jan Alber and Monika Fludernik (2011: esp. par. 17–18): “narratives always present a story which is mediated by a narrator’s discourse” (par. 18). In Genette’s model, “the narrating act shapes and transforms the story through the narrative discourse”; see his distinction between “story” (the events narrated), “narrative” (the discourse that tells it) and “narrating” (the actual or fictional act which produces this speech) (par. 17). Moreover, “one of the functions of narrative is to convert one time into another time” (Christian Metz, qtd in Genette 2007: 21).

Is this not what the interpreter is doing, since he transforms into time a work which is somehow “off-time” or *before time – a substance which is not yet formed!* In this meaning, musical narrativity takes place at a pre-linguistic level.

In music, there is something special: this narrator is a *real* narrator, in flesh-and-blood. There thus arises another, strictly narratological, question: the status of performance. Indeed, the performer in music is a narrator who necessarily gives shape to the work by a performance. It is the same whether the performance is heard on a recording or live: in either case, we know, we *feel* that someone – a real person – is playing or singing. In music, the performer is a narrator, since he makes present – literally creates – the *text* of the work, from the inside (and the *created* text has the same status as the text of a novel, for example). He is *at the same time* a performer, since he provides a personal *reading* of the text, and because this reading is received by an audience (music as performing art). In short, the interpreter is the narrator *and* he plays – performs – the role of that narrator.

I repeat here the distinction made by Ute Berns (2012) between “performativity I” (“Corporeal Presentation of Action”, par. 15–18), which applies to music, and “performativity II” (“Non-corporeal Presentation of Action”, par. 19–32).

“Performativity” means the way an action is presented or mentioned (par. 2). For each of these two modes of performativity, she introduces a further distinction between “story” (i) and “discourse” (ii):

(1) Performativity I.i refers to the level of *histoire* (the story that is presented) in the performance, i.e. in the fully embodied enactment of a narrative. The spectator of the performance perceives the unfolding of a story in a scenic transmission, bodily presented by one or more actors.

(2) In the case of Performativity I.ii, the spectator of a performance perceives an act of narration taking place. Here the performance consists in the presentation of a story by the narrator or presenter, e.g. in the figure of the rhapsodist vis-à-vis an audience. The story is mediated in a plurimedial manner by a single narrator / presenter. His or her voice, body or actions rather than those of individually embodied persons or characters form the core of the performance which allows for different degrees of impersonation. (par. 7; cf. par. 3)

In music, the two levels are equally relevant, and it is thus hardly possible to distinguish between them: (ii) probably takes greater importance in a public performance and (i) in a recorded performance.

8. However, the central question lies elsewhere: in the relationship between performance and musical text (i.e. the score). The notion commonly used in narratology to refer to this relationship is “mediacy” (cf. Alber and Fludernik 2011). This concept is used to specify the level where the discourse takes place, either with the performance (through a narrator who narrates) or in the *text* (the text that

“narrates” itself). Mediacy in this sense refers to what I call *the* center of gravity of *discourse*.

For drama and film, the question of mediacy raises a problem when it comes to performance:

Performance poses quite difficult problems for mediacy. In fact, one could enquire whether the notion of mediacy might here be an exclusively reception-oriented one. Is the story mediated to the audience through the experience of the performance? This question indicates that current research on mediacy has some distinct limits or horizons and that numerous matters are waiting to be resolved by further research. The role of mediacy in drama and film remains open to study: does it make sense to posit a dramatic or cinematic narrator? Can one argue that they are mediated by the performance? Or should we assume that plays and films are mediated by an implied author or filmmaker? (Alber and Fludernik 2011: par. 33, 35)

According to Alber and Fludernik, two options (or centers of gravity) are available for resolving these issues (par. 31–32):

- (a) the performance is the *discourse*, and the text a set of instructions for the performance;
- (b) the performance is a distinct manifestation of the text, and then *the text is the discourse* sketching an ideal performance: the text is no more a set of instructions, but the mediation of the implicit author.

For drama, the question is not resolved, and both options can constitute objects of distinct analysis. But in music, things are different. Indeed, if a play can be *read*, music exists only if it is *performed*. Even people who are able to read a score can hear the music internally only if they have previously heard some music. Someone who has never heard the sound of a violin or a trumpet will not be able to imagine the sound of such an instrument by reading a score. Theater is written in a language known by everyone, *verbal* language, which refers to the concrete reality of the world and all its stories, while music is written in a specifically musical language, unknown by non-musicians: music does not refer to another reality than itself. In other words, a drama can be summed up, translated into any language; this is impossible for a musical work. There is no specific theatrical object (in *written* theater), but the musical object is always specific and must be performed in its own language, since the musical text, the score, has no immediate concrete existence (although it can be analyzed as an object *per se*, such as an anthropological or semiotic product).

Thus in music, performance is a *necessary* condition, without self-sufficiency in relation to the text. Music becomes real only by being projected physically, audibly into space through the musician (see Brétéché 2012: 54–59). The two options mentioned earlier are not distinct but complementary. The first, *performance*, must lead to the other: the *text*.

Therefore, *the musical text, i.e. the score, is a set of instructions that performance must use to do justice to the implied author and his intentions*. This being the case, a performance may be more or less successful in relation to the text, and it may even fail.

This is a key point, for at least two reasons:

(a) from the narratological point of view, since music raises the problem of performance, and therefore of *mediacy*, in a particular way as compared with the other forms of art;

(b) from the point of view of experientiality.

9. Regarding the first point, since music is performance, the figure of the performer is *physically* present in all music, recorded music included. And in fact, what is *mediated*, even more than a performance or a musical text, is an *experience* of this artwork by one or more real people playing real instruments in a given space and at a given time.

The factor of physical reality, of *experience*, is heightened even more through the action of the forms of vitality which, as Daniel Stern has demonstrated, are a fundamental aspect of interpretation in the performing arts (2010: 131).

At least two aspects of forms of vitality in music can be distinguished:

(a) those that are indicated in the score (accents, dynamics, etc.);

(b) those that are not indicated anywhere and that are related to particular performances inasmuch as “the difference between a technically successful execution and an interpretation which transports us lies in the unique dynamic vitality that a great artist can bring to the work, and pass on a public” (Stern 2010: 131).

Thus,

Manfred Clynes, professional pianist and psychologist, described the domain he called ‘sentic’ [...]. He has especially distinguished the different ways for a finger hitting the key of a piano and studied the effect of the shape of touch and sound that it generates on the emotion of the pianist and the listener. He described there, in essence, something very close to the forms of vitality, but classified it under the category of emotions. (54)

The status of performer in music is therefore quite particular:

(a) from the strictly narratological point of view, as *playing*, giving shape and existence to the work;

(b) from the point of view of the performance, as the expression of a person in flesh-and-blood, as the expression of a *consciousness* – a consciousness perceived as such.

Just think about the importance given to interpretation in music.

It follows, then, that beyond the narrative character of the music there is a narrator who presents the music, who gives form to the music. This argument strengthens the narrative character of the music, especially because the narrator acts as a consciousness and expresses *an experience related* to real life.

So what is mediated through a performance is, above all, experience. This is all the more so in the concert hall, where performers are physically present with their movements and facial expressions, evoking a story, sufferings, a character, etc. There now remains a final issue to deal with: the role of emotion in this experience.

#### 4. Emotion in music as “experientiality”.

10. From the argument above, we know who is *speaking*: it is *he who plays*, the performer. We also know *for what and in the name of what* he speaks: a work of art, that is to say, a substance to which form – *a form* – must be given. But ultimately, what do we hear? The artwork itself? The real author? The implied author? The interpreter-narrator? In fact, *what we hear is all of this*.

I introduce here the concept of “persona.” It is, in fact, another form of narrator, which enables us to tackle the delicate category of emotion by avoiding some of its traps such as considering emotion as an autonomous entity, *expressed* by music and more or less felt by the listener.

It is on the basis of Tom Cochrane’s “Using the Persona to Express Complex Emotions in Music” (2010), Michael Spitzer’s “The Topic of Emotion” (2012) (referring in particular, on page 218, to Stephen Davies; see also Spitzer 2010) and Jenefer Robinson’s “Expression and Expressiveness in Art” (2007) (referring in particular, on pages 26, 27, 29, 38, to Jerrold Levinson), that I define the concept of persona. This concept means that music can be heard as the *expression of emotions* felt by someone in the music:

a listener follows music like the actions, gestures and intonations of a person, together with their associated emotions. This activity requires listening with imagination, by which the listener tracks, understands and internalizes the music’s emotional contour. There is here an aspect of immediacy, or affordance, especially in the way we move with the music, and identify with its motions. Music does this, as Robinson points out, in a ‘quick and dirty’ fashion, so that we ‘catch’ its affect or mood through emotional ‘contagion’. (Spitzer 2012: 218)

But what emotion are we talking about? What psychological mechanisms does emotion call on? Indeed, is the very term “emotion” appropriate?

11. I draw now on a few perspectives taken from two complementary proposals.

(1) What about this term “emotion”? In their introduction to *Handbook of Music and Emotion* (2010), Patrick Juslin and John Sloboda note that “emotion” refers to phenomena that it would be more appropriate to designate by the term “affect,”

emotion being only one affect among others (2010: 9, 11).<sup>1</sup> From there, I propose to distinguish, within this category of affect, between “emotion” and “mood,” and this in terms of intensity of feeling: high intensity for emotion, low intensity for mood.

(2) I also refer to the traditional distinction between what is *expressed* by music and what is *felt* by the listener. According to several studies, including a recent article by Emery Schubert (2013; cf. also Evans and Schubert 2008; Juslin and Lindström 2012; Juslin 2013a, 2013b), it appears that the listener generally recognizes what is expressed by music. However, recognizing or sharing a feeling is not necessarily being moved (see also the distinction between “expression” and “expressiveness”; Robinson 2007):

when listening to music I am often cognitively engaged without experiencing overt symptoms of emotions, yet no less committed to the expressive force of the music. [...]. Granted, sophisticated tests could easily find evidence of emotional response in me during such engaged listening, but those responses might as easily correlate with emotions resulting from any kind of satisfying engagement in cognitive activity, not with those emotions which are necessarily interpretable as being directly correlated with the expressed emotional states in the music. [Consequently,] we need not experience actual emotions ourselves, either as co-participants or as passionate witnesses, even when we recognize those emotions to have been expressed in the trajectories composed into a work. (Hatten 2010: 90, 95)

More precisely:

Whether a piece of music that expresses a particular emotion will induce the same emotion, a different emotion, or no emotion at all is not a simple issue, but rather depends strongly on the precise psychological mechanism involved. First, it should be noted that we may often perceive emotions in music without feeling emotion at all – at least not one evoked by the music. (Estimates suggest that music induces emotions in only about 55–65 per cent of the episodes – Juslin & Laukka, 2004; Juslin et al., 2008). Second, when an emotion is really evoked by music, whether the evoked emotion will be the same as or different from the perceived emotion will depend on the precise mechanism involved. (Juslin and Sloboda 2010: 632; on “The relationship between perception and induction,” see 632–633)

Hence there is a distinction, which joins up with that of the distinction between *mood* and *emotion*, between what is *perceived*, recognized, identified, and *emotion* in the full sense of the term, which is *induced* by what is felt. For this distinction between

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<sup>1</sup> See also Table 1.2: “Definitions of key terms as used in the *Handbook of Music and Emotion*” (10). The proposed definition for “affect” is: “This is used as an umbrella term that covers all evaluative – or ‘valenced’ (positive/negative) – states (e.g. emotion, mood, preference). The term denotes such phenomena in general.” And the definition for “emotion”: “This term is used to refer to a quite brief but intense affective reaction that usually involves a number of sub-components-subjective feeling, physiological arousal, expression, action tendency, and regulation that are more or less ‘synchronized’. Emotions focus on specific ‘objects’ and last minutes to a few hours (e.g. happiness, sadness).”

*expressed, felt* (or perceived) and *induced*, I refer in particular to Steven Livingstone and William Thompson's "The emergence of music from the Theory of Mind" (2009; see also Juslin and Sloboda 2010: 632).

Generally brief and intense, this induced emotion often manifests itself through physical phenomena such as shivers. According to David Huron and Elizabeth Margulis (2010), the cause of shivers is now widely known. They are triggered mainly by contrasts of dynamics, register, tempo, rhythm, tonality, entrance of new instruments or voices, return of a melodic theme, etc. These contrasts are generally related to two factors: surprise or the unexpected, and energy:

The most important acoustic correlate is a rapid large change of loudness, especially a large increase in loudness (*subito forte*). A less robust acoustic correlate appears to be the broadening of the frequency range (i.e. the addition of low bass and/or high treble). Musical correlates include the entry of one or more instruments or voices; the return of a melody, theme or motive; an abrupt change of tempo or rhythm; a new or unprepared harmony; abrupt modulation; or a sudden change of texture. [...]. Notice that two common elements can be found in this list of features. First, adjectives such as abrupt, rapid, sudden, new, and unprepared suggest that the precipitating musical events may be surprising or unexpected. A second common theme is high energy, such as increased loudness or the addition of sound sources. (Huron and Margulis 2010: 594; see also Burger et al. 2012)

A study published by Glenn Schellenberg et al., entitled "Changing the tune: listeners like music that expresses a contrasting emotion" (2012), shows that music with a strong emotional intensity is particularly appreciated by listeners and that this intensity is increased when *contrasted* emotions are expressed. This study also points out that the nature of the induced emotion is the same, whether this emotion is related to a gay or a sad feeling:

The analyses revealed four main findings: (1) listeners reported greater appreciation and a more intense emotional response when the music contrasted in emotional status to that of music heard previously, (2) liking and intensity ratings were correlated positively, (3) the contrast effect for liking disappeared when the intensity of listener's emotional responses was held constant, and (4) response patterns were similar whether the background emotion was happiness or sadness. (Schellenberg et al. 2012: 6)<sup>1</sup>

At issue is thus an emotion which is beyond felt emotions such as joy, sadness, etc. – a *generic* emotion. That is why it is an induced emotion, not an emotion that feels

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<sup>1</sup> See also a study demonstrating that "listeners were much more likely to make strong emotion ratings for monophonic textures than for any other multiplicity level, and multiplicity effects seemed to be greater for loneliness and pride ratings than for sadness and happiness ratings" and that "positively-valenced emotions are more easily perceived when more musical voices are present, whereas negatively-valenced emotions are perceived more strongly when fewer voices are present" (Broze and Brandon 2012: 166). See also Korsakova-Kreyn and Dowling (2012).

what the music expresses. The same emotion can also be experienced in front of a picture, a sunset or even a trivial event in everyday life:

an expression of emotion is a piece of behavior that (1) issues from somebody or other who is actually experiencing the emotion, and (2) manifests or reveals that emotion in such a way that other people can perceive the emotion in the behavior. Artistic expression has the same basic structure and function as expression in ordinary life. (Robinson 2007: 19)

**12.** Through its intensity, energy and depth, induced emotion is one of the drivers of the persona phenomenon. It is this emotion that involves the listener from an affective and cognitive point of view. The question is not only to recognize but to be an actor of what happens, and especially to be an actor from inside what one hears. Therefore, emotion is not some kind of musical ornamentation, either at the individual or the collective level. Rather, as Leonid Perlovsky contends (2012), musical emotions fulfill a fundamental role:

(a) “in the evolution of consciousness, cognition and culture” (191);

(b) in the reconciliation of “cognitive dissonances” created by the conceptual nature of language.<sup>1</sup> Thanks to this, it was, and still is possible to maintain in individuals and societies “a balance between differentiation and synthesis” (192). This also explains the central place of music: “The main hypothesis of this paper is that maintaining this balance is the very fundamental role that music plays and the reason for evolution of this otherwise unexplainable ability.” (191)

Above all, emotion in music is *engagement, participation, interaction* – in a word, *experience*. This is the meaning of the concept of persona. It is in this sense that persona crystallizes everything we’ve seen up to this point. We hear music speak to us. This music offers us some form of world that we understand or feel, more or less, because we may possibly make it our own, thanks to emotion. Persona is a place, a voice that the listener imagines.

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<sup>1</sup> “Language has contributed not only to the differentiation of conceptual ability, but also to the differentiation of the psychic functions of concepts, emotions, and behavior. This differentiation has destroyed the primordial synthesis of psyche. With the evolution of language the human psyche started losing its synthesis, wholeness. [...] Most of the knowledge existing in culture and expressed in language is not connected emotionally to human instinctual needs. This is tremendously advantageous for the development of conceptual culture, for science, and technology.” (Perlovsky 2012: 190–191)

And: “The proposed hypothesis suggests that language has reduced the direct connections between vocalization and ancient emotional centers. Neural imaging tests could reveal whether music is connected to ancient emotional centers; is this connection direct? Is it different for music and language? To what extent and how does music involve emotional centers in the cortex? Are the neural mechanisms involved in poetry similar to those involved in music?” (195)

Thus, “musical emotions have evolved for the synthesis of differentiated consciousness, for reconciling the contradictions that every step forward differentiation entails, for reconciling cognitive dissonances, for creating a unity of the differentiated self.” (193)

13. At least three inseparable phenomena feed into this process and, most importantly, make it possible. What interests me here is how to clarify the concept of persona by showing how the link can be established and, even more, *interaction between the listener and what he hears*.

(1) The first phenomenon is “affective attunement,” as studied by Daniel Stern, based on the model of relationship and *interaction* between a mother and her baby (for a very brief overview, see Stern 2010: 54–57), and subsequently taken up by Michel Imberty (2005: 199–206), a significant part of whose work is nourished by affective attunement.

The principle is as follows: affective attunement is “a coincidence of internal emotional states” (Stern 2010: 56) based on forms of vitality belonging to different and non-verbal modalities. For example, the baby shows joy at having accomplished something, and the mother shows she has understood by responding with a humming “yes,” taking up the same dynamic curve or form of vitality as used by the baby (Stern 2010: 55–56).

The implication of affective attunement for our conception of persona can be drawn from an article by Ulrik Volgsten (2012) who, based on the works of Daniel Stern, has developed a theory of the “psychogenesis of music.” According to this theory, interaction and communication between people is, first of all, musical, that is to say, *protomusical*. What makes this interaction possible is the emotional and affective power of sound: “human interaction and communication is at the outset musical – or protomusical – and that which makes interaction and communication work is the emotive or affective power of sound” (200). “[To] hear a melodic contour is fundamentally to feel it” (202), in other words, to experience it – as coming from someone who speaks to us.

(2) The second phenomenon, inseparable from the first, is “mirror neurons,” which we have looked at in connection with the reconstruction of others’ intentions. This process includes the emotions, as in the case of affective attunement, triggered by activation of the mirror neurons. I return again to Istvan Molnar-Szakacs and Katie Overy’s study (2006), whose title is revealing: “Music and mirror neurons: from motion to ‘e’motion.” Judith Becker (2010) quotes this study in a paper with an evocative title: “L’action-dans-le-monde. Émotion musicale, mouvement musical et neurones miroirs” (“Action-in-the-world. Musical emotion, musical movement and mirror neurons”).

(3) The process of persona can thus be formulated as follows: this *someone* who feels emotions and that we hear express himself in music is an *intentional* reconstruction brought about by the mirror neurons mechanism, and we empathize emotionally, or not, with this someone by the action of the forms of vitality. Hence the third phenomenon, which appears once the first two phenomena are consummate:

“emotional contagion” or “empathy.” I refer here to a paper published by Patrick Juslin and John Sloboda (2010), according to whom:

Emotional *contagion* refers to a process whereby an emotion is induced by a piece of music because the listener perceives the emotional expression of the music and then “mimics” this expression internally. Emotional contagion has mostly been studied regarding facial expression [...], but Neumann and Strack (2000) has also found evidence of contagion from emotional speech. Because music may often feature sound patterns similar to those that occur in emotional speech [...], it has been proposed that we get aroused by voice-like aspects of music via a process in which a neural “module” responds quickly and automatically to certain stimulus features, which leads us to mimic the perceived emotion internally [...]. While the notion of emotional contagion via music admittedly remains somewhat speculative, a recent fMRI study by Koelsch et al. (2006) found that music listening activated brain areas related to a circuitry serving the formation of pre-motor representations for vocal sound production (no singing was observed among the participants). Koelsch et al. concluded that this could reflect a mirror-function mechanism, similar to the so-called “mirror neurons” proposed as a possible explanation of emotional contagion via other non-verbal channels (Preston & de Waal, 2002). (622; see also, esp. 628–629; cf. Vuoskoski and Eerola 2012: 1112–13)

I refer also to three collaborative studies conducted by Stefan Koelsch which put forth in particular the hypothesis mentioned above concerning relationship between emotion caused by music and activation of the mirror neurons.<sup>1</sup> Also to be mentioned is a collective study conducted by Birgitta Burger et al. (2013) showing that the bodily movements triggered by music reveal constants in relation to the emotions expressed by this music: the results of this study “could provide support for Leman’s (2007) concept of ‘Empathy’: the participants (unconsciously) identified the underlying emotions in the music and used their body to express and reflect the affective content” (181).

Finally, the most important study in this area is probably that of Arnie Cox, “Embodying Music: Principles of the Mimetic Hypothesis,” published in 2011: This essay describes a hypothesis of how music becomes internalized into the bodies and minds of listeners. [...]. The mimetic hypothesis addresses the matter of embodiment by showing how musical imagery – recalling, planning, or otherwise thinking about music – is partly *motor* imagery. Motor imagery is imagery related to the exertions and movements of our skeletal-motor system, and in the case of music this involves the various exertions enacted in musical performance. The mimetic

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<sup>1</sup> Koelsch et al. (2006), and in the same study it is also demonstrated that “the effects of emotion processing have temporal dynamics” (239); Koelsch (2005), and more particularly “Time course of emotion” (415–417), where it is shown that “[t]he intensity of emotions usually changes over time (even if the emotion itself might be the same)” (415). See also Koelsch, Siebel and Thomas (2010).

hypothesis details how this might play out and suggests how it might underlie conceptualization and meaning.

The initial premise of the hypothesis is that part of how we comprehend music is by way of a kind of physical empathy that involves imagining making the sounds we are listening to. This is a special case of the general human proclivity to understand one another via imitation, which we can refer to as mimetic cognition or mimetic comprehension, where “mimetic” is used in the manner specified below; hence, the “mimetic hypothesis. (Cox 2011: 1)

**14.** According to the collective study by Patrick Juslin and John Sloboda (2010), *emotional* contagion is one of the seven psychological mechanisms that form the basis of emotion (622).<sup>1</sup> In my opinion, this is the most profound and potent mechanism, and also the one most closely linked to the music and therefore the most liable to be experienced by the listener, and thereby to lead to a *re-configuration* of his identity (cf. Ricoeur 1985). This is a non-conceptual phenomenon, something that does not represent in the linguistic sense. But it is rooted deeply in real life and is thus no less a phenomenon of experientiality, as defined by Monika Fludernik. Or, to adopt the term Judith Becker uses about musical emotion: an “action-in-the-world.”

We can understand this phenomenon of emotional contagion or empathy as an access path to the *sublime*. According to Hermann Danuser (2007), the sublime reveals “the presence of an alien moment, a moment of rebellion of the senses, of no understanding” (70). He goes on to quote Kant, who spoke of a “revolt against the senses.” The sublime cannot be explained by analysis (70–71). Danuser takes as an example a well-known passage from a work of Beethoven (71, 72–73) which can be analyzed down to the smallest details, but the “mystery of this passage remains intact.” He concludes that “it is precisely because the music is incomprehensible that it gains in greatness” (72).

But is what is true for music not true for any aesthetic experience, including literary experience? We often believe that we are able to better control the literary experience because words and phrases can be paraphrased. But what are we looking for in literature and in art generally? Is it not the experience of the sublime, of what is beyond sense? Ultimately, is it not *beauty*, in the meaning given by Paul Valéry: *beauty, this is what despair?...*

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<sup>1</sup> The other six mechanisms are: “*brain stem reflex*” (620–621), “*rhythmic entrainment*” (621), “*evaluative conditioning*” (622), “*visual imagery*” (622–623), “*episodic memory*” (623), “*musical expectancy*” (623).

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