



Universiteit
Leiden
The Netherlands

Musika: The becoming of an artistic musical metaphysics

Withers, S.

Citation

Withers, S. (2020, October 27). *Musika: The becoming of an artistic musical metaphysics*. Retrieved from <https://hdl.handle.net/1887/137929>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/137929>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/137929> holds various files of this Leiden University dissertation.

Author: Withers, S.

Title: Musika: The becoming of an artistic musical metaphysics

Issue date: 2020-10-27

Introduction

Questions

The research presented in this book discusses and relates questions of becoming in music, metaphysics and physics, and organizes the established connections into a model of musical ontology, motivated and informed by artistic experience and sensitivities. As such, this dissertation is as an exercise in artistic musical metaphysics. It traces the emergence of an idea, abstracted from the planes of theoretical physics, philosophy, psychology and musicology; an idea, which begins as somewhat ambiguous inquiry, continuously enfolds through various forms, to become tangible at the end.

My thesis conjugates variations of a bond, associating two phenomena, music and consciousness. Examples include:

- Music is consciousness
- Music is a conscious entity
- Music is a symbiotic species of consciousness' and a life form whose medium is sound
- Music is a form of consciousness
- Music as consciousness

The proposition 'music is (...) consciousness' is very broad and would benefit from an upfront clarification as to what it is not. From a certain perspective, everything and anything IS consciousness, in so far as consciousness is experience: the integrator and constructor of meaning (Koch 2018). In the world of phenomena nothing I perceive comes as it might be 'in itself': my consciousness is the filter, the interface of reality. The music I know, too, is a particular organization of the content of my consciousness: 'the music itself' – what this might be?! Thus understood, the idea 'music is consciousness' defines music – and, in fact, art and reality – relative to the consciousness of the beholder and locates meaning in the bodymind of the participant, framing music – and the cosmos – as a product of my faculties, my capacities and resources. The idea of an uncertain, indeterministic and undeterminable universe, where conditions and substances depend on the attention of an observer, lays at the basis of quantum physics; this interpretation of reality is not what I explore.² Neither do I

² Albert Einstein was famously uneasy with the idea of a probabilistic uncertain universe and in the 1920s and 1930s had a series of public debates with Niels Bohr on the matter; the anecdote recounts

pursue the typical postmodern stance treating music as a cultural-historical event (Goehr 2015), bringing it ‘back in the world’ from the metaphysical dimension music has occupied in previous eras (e.g. from Pythagoras’ ‘music of the spheres’ to music in Schopenhauer as ‘copy’ and embodiment of the Will). This interpretation, too, regards music as a result, albeit, in this case, not of my subjective consciousness but of the collective one, so to speak: as accumulated artistic practices and expressions suspended on the webs of cultures.³ Finally, what this dissertation is not, is an apologetics of the glorious but moot construct ‘Absolute music’ and the formalist premise in general, which creates a deep gulf between certain examples of instrumental classical music defined as the high standard and most all else.

In my research, I treat music as an encounter and⁴ a practice, an ‘itself’ and a process, as an evolutionary becoming and an agent on its own terms: if I become my consciousness, music becomes its consciousness, as I am, so it is. Here already a need for definitions makes demands. What is consciousness? Is it awareness, subjectivity, information, illusion? The term, the way it works in this thesis, has a dual meaning: 1) from a big-picture point of view, consciousness is the ground of reality, its fundamental nature: “the wind blowing toward the objects” (Sartre 1991), and 2) as an individual, constrained version of the latter, consciousness manifests in the phenomenal world as a continuum ranging from dim awareness (ameba) to one’s ability to introspect (Sapiens), where quality is proportional to organization and integration – the higher the level of organization of the entity, the higher the quality of its consciousness. Both versions of the term are explored as participators in the musical project. What about music? Is it a phenomenon, an action, an art form, an entity, an organism? Although defining music is not an explicitly posed question of research, it is nevertheless a question that this work continuously inquires and in-forms, contributing to the study of musical meaning and to musical ontology.

that, once in a walk with physicist Abraham Pais, Einstein abruptly stopped and asked: “Do you really believe the moon is not there when you are not looking at it?” (Mermin 1985).

³ In recent decades zoomusicology has plausibly added non-human species to the list of music-makers (F.B. Mâche 1993, Martinelli 2008, Keller 2012); however, the old warning of Jean-Jacque Nattiez still applies: “If we acknowledge that sound is not organized and conceptualized (that is, made to form music) merely by its producer, but by the mind that perceives it, then music is uniquely human” (Nattiez 1990: 58).

⁴ I have used the fonts Georgia throughout and Ariel for emphasis. Also, I have referred to professionals, e.g. ‘composer’, ‘performer’, or ‘philosopher’, and to persons in general with she/her/hers pronouns instead of he/him/his.

The inquiry tackled in this dissertation is three-fold, it discusses and plugs these three groups of questions into different configurations:

- 1) How are music and consciousness related? What is the character of their proposed relation?
- 2) Is music real and how? What means for something to be real?
- 3) What forms does music take? If music is a multiplicity, what is the kind of its multiples – events, works, things, beings, entities, agents, forms? How they interact with us, musickers?

And further, on an auxiliary note: Why music appears the way it does? What are the structures underpinning this appearance?

Structure

The whole of the dissertation could be thought of as series of zooms, which illuminate in increasing detail an idea, until in the last text, the InterZone, the zoom enters into the object itself. Alternatively and less ocularcentric, it could be said that the book is conceived as a series of funnels of increasing size, making a vague melody ever more audible, until in the end we find ourselves in the middle of it. There are five chapters and five interjections. While the chapters explore certain problems and map certain geographies, the interjections in-between the chapters deviate, connect and prepare, or tune-in ideas discussed in the preceding or succeeding chapters, essaying on issues the latter do not or cannot comment, e.g. the strangeness of music (III Interval) or the role an instrument plays in one's musicologica⁵ (I Interlude). The idea of Chapters and Interjections is inspired by Deleuze and Guattari's contribution to musical ontology, specifically, by the concepts Refrain and Line of flight. The latter complement each other and in a way complete the musical project. The Refrain tries to capture music in number and measure, to chisel out its territory, to keep at bay forces of destratification and disintegration, to label and classify; it is also a means to preventing music, to warding it off, yet without it music cannot exist (Deleuze and Guattari 2013: 349). The line of flight, on the other hand, is the line of deterritorialization, driven by forces of creative destratification, "veering toward destruction" (Ibid.: 348); it could be said that music is composed by lines of flight. Probing into these two sides of music – the

⁵ Although the term first appeared as a title of Jaap Kunst's book from 1950, it is through Rafael Menezes Bastos' research from 1978 that it gained currency today, especially in cultural musicology, in the sense of the "musical dimension of being" (Abels 2011 in Meer 2013) or as "world-hearing" (Van der Meer 2013), as well as "modes of thought *about* music as well as *through* music (Titus 2014).

territorial and the deterritorial – is a leitmotif that persists throughout the book. The conceptual pair appears under different hats, e.g. the scientific side of music vs. the magical one (Benjamin Britten), calculations vs. eloquence in music (Michel Serres), music score vs. music that is not in the notes (Claude Debussy), and ultimately, Musinculus vs. Musical (explanation follows further in the Introduction). Structuring the dissertation in this specific way, Chapters vs. Interjections, is a formal reference to the problem of content (refrain) and expression (lines of flight) – and an attempt for integration.

The first two chapters set the tone and the direction of the inquiry, preparing conceptually and logically Chapter 3, where I present a big-picture of reality, the basis of my thesis. Here, I introduce the reality frame of Musika and begin piecing together a model of music, from which a more elaborate ontology emerges in the final two chapters, populating reality with musical entities.

Music and consciousness

The starting assumption that music is a form of consciousness requires that music and consciousness are compared as subjects of their respective disciplines, musicology and consciousness studies, and examined for patterns and structures, processes and principles that show similarities and differences. Consciousness, as a subject science studies and philosophy contemplates, is introduced in Chapter 1 as a phenomenon exhibiting characteristics similar to music's. Consciousness and music are discussed in a few concise points, e.g. their wide spreadability range (from bacteria to Bach we are all 'conscious' and 'musical') and their subjectivity and flexibility of expression (qualia vs. musical meaning). While both consciousness and music engage matter in their becoming, they fully unfold upon expansion out of matter and into something less opaque, more ambiguous and unyielding to definition and categorization. In trying to approach this ineffable suchness, it is natural that one begins from the solid common point of the two phenomena: their material origin.

The strange behavior of matter has been at the heart of 20th century theoretical physics and it is on its territory where I continue my inquiry, to discover that 'what is matter?' is just as, if not more, of an exasperating question as the, now classic, 'what is consciousness?' The history of 20th century physics is a history of our evolving understanding of the universe, of our place in it, and also, of consciousness. Although the world we know appears fragmentary, populated by 'things' and ruled by clocks, science has demonstrated that reality is much more ambiguous and strange than its appearance. Quantum mechanics' insights and interpretations of reality add substance and high definition to the hard questions of

consciousness, language and music, blurring the borders between the study of things, the study of music and the study of mind: quantum physics demonstrates that what was considered separate phenomena in the old Newtonian world, unfolds into actuality from a universal field, from an underlying, always already emergent whole.

The Implicate Order

David Bohm's book *Wholeness and the Implicate Order* (1980) is an interpretation of physicist's Pilot wave theory, which in turn offers a solution to quantum mechanics Duality paradox. Bohm's theory is a philosophical journey into reality and consciousness; it informs his idea of two distinct but interlinked orders, which perform reality simultaneously: the Implicate and the Explicate Order. In some way these Orders reflect the two major paradigms in physics – respectively, the invisible, holistic quantum world of interconnectedness, nonlocality, and process, and the visible, classical Newtonian world of phenomena, parts, and 'immutable laws'. The Explicate Order abstracts events and things into actuality, only to enfold them back into the flow of the Implicate Order, which is nonlocal, dynamic, and holistic – like consciousness. Significantly, Bohm states that in listening to music "one is actively perceiving an implicate order" (Bohm 2002: 253), that the significance of music is in the "whole unbroken, living movement" (Ibid.: 252). Bohm asserts that music, like consciousness, is one of the best means we have at our disposal, for perceiving – and trying to grasp – the hidden side of reality.

The Implicate Order, then, focuses all three actors from my questions – music, consciousness, and reality. It is the hidden life, the virtual reality in which we learn, love, suffer and enjoy, but which often goes uncredited, for it is invisible. When we listen to music, we perceive it in our actual, explicate reality as sounds and silences, notes, beats, tunes and rhythms, we enjoy the musical content. But what we hearken, what we come back to repeatedly is the music that is not in the score. Many have contemplated on that 'magical' side of music. Nietzsche hails it as a 'mysterium tremendum' (1995); Stravinsky speaks of it as 'the music itself' (1962); Vladimir Jankélévitch dubs it the 'ineffable' (2003), for Deleuze it is the 'line of flight' (2013). The Implicate Order is a magnifying glass through which we can look at music's other side.

Chapter 2 explores the conditions that need to be satisfied in order for music to be considered an Implicate Order itself, as a step towards a model that regards music as an independent (of my consciousness) reality frame with its own set of Implicate/Explicate Orders. I build my case by investigating three propositions: 1) Moments, the building blocks

of the Implicate Order, correspond to what I name Musical transformations; 2) there are uniquely musical space and time, and 3) music and consciousness are enfolded in the Implicate Order as a single integral process. My argument includes a discussion of the so called ‘metalinguistic properties of music’ (Keiler 1981) – like an Implicate Order, music describes itself in terms of itself, through musical means: the thing doing the describing is the thing described. The distinct meaning and existence fundamental notions such as space and time receive when put in musical terms, as musical space and musical time, also contribute to the emerging view of music as a self-contained reality. The discussion of musical time specifically demonstrates the intimate link between, what could be called, the Order of music, and the Implicate Order of consciousness: true as it may be that my consciousness creates music, the opposite is also accurate: the movement in music educates my attention, molds and shapes my consciousness. The notion of musical time reveals the feedback mechanism in the physical-musical becoming. The latter I consider through the idea of the Musical assemblage, a concept of Deleuze and Guattari’s. Finally, the physical and the Musical assemblage are contemplated side by side.

Two connections

As I have already introduced a few Deleuzian concepts, a few words on the major opuses that have influenced or inspired my model are in order. In addition to Bohm’s Implicate Order, these are Deleuze and Guattari’s *A Thousand Plateaus* (1980) and Campbell’s *My Big TOE* (2003). In their projects, Bohm and Deleuze and Guattari present an augmented picture of reality, which features music as a force and herald of the invisible and the implicate. Campbell’s model offers some concrete scenarios as to how the virtual and actual are interrelated. These ideas scaffold my big-picture view of music.

The book of French philosophers Gilles Deleuze and Felix Guattari’s *A Thousand Plateaus* appears in the same year *The Implicate Order* is published, 1980. It is a significant coincidence, as these projects share a lot in terms of insight and vision, framework and ontology. Related in spirit are the oppositions Plane of Immanence or Consistency – Plane of Organization in Deleuze and Guattari and Implicate – Explicate Order in Bohm; the relentless living force of the Holomovement (Bohm) is echoed in the continuous variation of the Becoming (Deleuze), the notion of the Assemblage as striation on the surface of a Body without Organs (Deleuze) is analogous to the idea of composite enfolded Moments, abstracted from the flow of the Implicate Order and actualized (Bohm). In short, both projects prompt a vision of reality as limitlessly enfolding and unfolding origami (Murphy

1998: 221). The bridge between the philosophies of Deleuze and Bohm's, is the production of the virtual, which provides a base for a dialogue between music, consciousness, and reality.

Although it is only in the InterZone where I explicitly explore a musical problem via its frame of reference, Deleuze's concept-populated philosophy permeates my thesis in its entirety, negotiating and guiding like a whisperer. The metaphysics of immanence of Deleuze is committed to exploring the invisible, to eliciting a movement beyond the 'all too human' to an unlimited range of becomings, to inoculating the actuality with fantastic virtual potential. In it, music emerges as a force resistant to Newtonian laws, as an abyss and a cosmos,⁶ as plenum of haecceities and becomings, speeds and affects – all entangled and flowing in a “continuous acoustic flow that traverses the world and encompasses everything, even silence” (Deleuze 1986). An “exercise in phenomenology” (Buchanan 2016), Deleuze's oeuvre (specifically *A Thousand Plateaus*) works as a probe into the nature, or, to use Bohmian term, the Order of both large and own consciousness. In a sense, it is an inquiry into the Implicate Order.

Both Bohm and Deleuze and Guattari explore philosophical matters consisting of stretchable concepts in topological dimensions, imaginary realms and possible realities: on this level one's elaborations are practically limitless. Physicist Thomas Campbell's *My Big TOE* (2003) comes to apply certain constraints and to organize these concepts and intuitions in 'concrete' terms. Diverging from the binary line of thinking that recognizes our reality as a play of the actual-virtual orders of experience, Campbell maintains that there is only Virtual; the Simulation hypothesis, a version of which Campbell works with, proposes that the Actual that appears so overwhelmingly real to us, is but a special effect, insofar as space is a 3-D extension of time. In his theory, the physicist presents a compelling big-picture view of information-based reality that unfolds logically from two basic assumptions: 1) consciousness is fundamental, 2) the process of evolution is fundamental. These two factors afford reality practically endless capacity and room for development and experiment. Our universe is just one of the possible existence protocols Campbell calls Physical Matter Reality; together with its associate and progenitor Nonphysical Matter Reality they form our system of virtual reality, with a unique rule set. For all practical purposes, physical to nonphysical is a ratio of the actual to virtual problem.

⁶ See the section “O as in Opera” from the French television interview *Abécédaire de Gilles Deleuze* 1988-89/ *Gilles Deleuze from A to Z* 2011.

Musi-

After making a case for music as an Implicate Order in Chapter 2, i.e. as an ‘image’ of consciousness, I proceed with sketching, composing and expanding a model of the entity thus incepted, for “a change in meaning is a change in being” (Bohm 1986). Starting from the position that ‘music’ has become a crowded term that struggles to accommodate – or even to suggest – the lavish phenotypic variety of meanings we have come to burden it with, a term that has come to present us with more problems that it manages to address, I propose an anthropo-de-centric big picture view of music that provides it with its own Plane of immanence, its own Physical Matter Reality frame populated with a range of musical entities, landscapes and haecceities. In this line of thinking Earthlings are consciousness organizations based in carbon – from graphite to diamond, from tomatoes to Sapiens; carbon is one of the most abundant and certainly the most versatile elements known to men, a basic ingredient of all life forms. ‘Music’, I propose, is a catch-all term for consciousness organizations based in sound. These sound forms, I assume, have their own reality frame, which I name Musika: an alternative ‘universe’ where the ‘life forms,’ in all their versatility and diversity, are derivatives of media negotiated vibrations. My second assumption, based on Campbell’s TOE, is that Musika is a reality frame with a lower constraint level and higher entropy than our own – in such realities learning rooted in experience is difficult due to the fuzziness of interactions, which makes the latter prone to wide interpretations, hindering growth. Uncertainty is among the likely reasons that propel Musika’s forms to seek (physical) symbionts outside of their own reality frame. From these two assumptions I logically develop the possible evolutions of the Musiklings, Musika’s sonic forms.

The introduced neologisms beg for a few words on musical concepts. Among these are, Musika and Musikling, already mentioned, and then, the Musinculus, the Musical, The Musical Individuated Unit of Consciousness, the Musical assemblage . . . the list is not exhaustive. All of these are Musical entities, along with some more familiar ones, such as Composer, Performer, Work, Rāga or Tone. I define Musical entity as a self-contained interactive system based in organized sound, with the ability to evolve and to manifest different characteristics at different circumstances, upon different considerations, to different effects. In order to emphasize the specific quality or the particular attributes or functions of the phenomenon, I designate the latter with an explicit label. To underline its aliveness, for example, I use the general term Musical Entity; to stress its mechanical, physical, ‘scientific’ phase I refer to it as Musinculus; Musikling stands for an agent inhabiting particular ecology, a reality frame like Musika; the Music work brings forth a

more enduring aspect that returns and persists through all the transformations. The dimension these entities inhabit is a hyperlinked, interactive, busy dimension of alternatively organized consciousness forms. In order to highlight the common ancestry in Musika's creaturehood, I consolidate all species or musical evolutions in the tag Musikon.⁷ Like the philosophical concepts of Deleuze, the Musikons are akin to real, furry creatures with four paws (Deleuze 1986); simultaneously, they are a matter of something like an accent – with a tweak of intonation they defamiliarize meanings and cause you to see things differently.⁸

Musical & Physical

Once Musika and its denizens are introduced, I proceed by considering how the latter connect to our reality frame, on what basis this connection is established and how the musical and the physical units of consciousness get involved to evolve together. The notion of musical symbiont is examined along with its implications, through a parallel discussion on the origin of music and on music's relation with language. The theory of George van Driem on language as an organism (2001) and the hypothesis of Garry Tomlinson of the biocultural coevolution of music and language (2015) are analyzed and problematized. Chapter 3 ends with the introduction of the Musinculus. Analogous to the term 'homunculus,' 'musinculus' refers to the music-like quality of music as the 'homunculus' denotes the human-like qualities of man. Like the fact that I appear human – through my external and internal shapes and forms – do not begin to cover my humanity, the fact that music appears as organized sound and has characteristics we are used to recognize as 'music' does not reveal what is the really musical in music. As my humanity is not necessarily contained within my body, the musicality of music is not necessarily in its sonic corpora and assemblages, so to speak. Hence, the Musical is introduced. Focus of Chapters 4 and 5, the exploration of the Musical flows through discussion of classic musicological problems, like musical meaning and interpretation, and of notions like the Music work, Musical entities, and Musical assemblage. Through a constellation of musicological, philosophical and psychological reasoning, my argument culminates in the following proposition:

$$\frac{(self)consciousness}{man} \approx \frac{musical(ity)}{music}$$

⁷ The neologisms are meant to evoke an association and to plug into already existing pockets of meaning; the Musikon is a nod toward the Pokémon universe. I explain in the eponymous interlude.

⁸ *L'Abécédaire de Gilles Deleuze* 1988-89, "I as in Idea."

Once established what the Musical may be, in Chapter 5 I investigate its problems of becoming in physical reality frame while retaining its musical nature and evolving musical consciousness. This is approached through ‘glitches’, ‘cracks’ and ‘shadows’ I have encountered in my work with certain piano pieces by Chopin, and as a listener of certain voice pieces. The topic of investigation is the discrepancy between music that is in the score and music that is not in the score, between the deep psychological reading of music and the agonizing constraints of live performance. A number of tensions are explored, e.g. between melody and accompaniment, between voice and body, the auditory and the visual, the musical and the physical, while in the end all is transposed into the ultimate tension – between music and man. The chapter concludes that the Musical cannot be ‘caught’ in our plane of physical existence and of language-coached thinking: it is of a different dimensional nature, hence, doomed to always be distant, ineffable. But then, if we cannot ‘bring’ the Musical to our reality frame, can we ‘go’ to it: can we meet the Musical on its own territory? To grasp it through an alternative becoming? I say, let us try – through the Body without Organs.

One of the most prolific concepts of Deleuze and Guattari’s, the Body without Organs is articulated as a ground of reality pre-formation, as a plane of immanence. The InterZone explores the dynamics and the encounters I experience as a visitor to the Body without Organs, via a particular performance of the Inuit throat singer Tanya Tagaq. The text focuses concepts and ideas from the entire dissertation, and as such it acts as both culmination and coda. I conclude that both the consciousness of music and the consciousness of man – as much as we are able to comprehend them – are of much more physical and organized character than is often assumed; they are ‘ineffable’ precisely because of their ‘effability’.

Why physics?

The technique of indirection is a well-known approach in arts, in literature, in research. Through the method of displacement,

one thing reveals something about the other and vice versa, e.g. doing philosophy by writing on music or researching music while writing philosophy; as Adorno put it: you have to shock people into seeing the misuse of a concept (Goehr 2015).

Even if the merits of approaching one thing (music) through another (physics) are obvious, the question still remains: why (grounding in and developing musical hypotheses through) physics – hard science, a distant field?

The projects of Bohm and Campbell incorporate mathematical and philosophical intuitions about reality in a plausible narrative, whose framework introduces new possibilities and suggests models that leave room for interpreting music as an interactive player into the virtual drama in which we are all actors. The status of a 'player' connotes a decision-making potential, which could hardly be entertained in the current model. This model presupposes that the body of ideas assembled by the big questions of music is not a chapter, read and dealt with once and for all, but it is rather a manufacturing facility, which exists upon the provision of further research, further debate incorporating different points of view, inviting imaginative and stimulating questions: it is a rhizome of interdependent and interpenetrating plateaus, sprawling wide and far. . . between the limits set by a non-negotiable constraint: music is a human (and if liberal, a mammalian or an avian) invention. As far as this invention is conceived, distributed, and received as an artifact, interpreted and exploited as a product, musicology deliberates on a Newtonian worldview basis. This is not surprising. Since its formal baptism in the 1920s, quantum mechanics has become a fundamental branch of physics with a good history of prediction and wide-ranging applications (e.g. computers, lasers, MRI); yet the popular collective imagination still works within a Newtonian frame of reference, describing the world in terms of isolated, divided parts. The problem with this fragmentary view is not only that it is inaccurate: it proves to be destructive to human relationships, to ecology and climate. Although the community of physics witnesses the breakdown of the fragmentary model in the 1930s,⁹ for the general public this model's inefficiency begins to become apparent about 50 years later: with the adverse effects of consumerism and globalization, with the increased political concern for the environment manifested in real life changes (e.g. widespread recycling), with the greater environmental awareness raised by grassroots movements, with the support for renewable energy sources initiatives ensured by international organizations and local governments. . . we slowly begin to get it: we are all one.¹⁰

⁹ The notorious paper of Einstein, Podolsky and Rosen from 1935 demonstrates the so-called 'entanglement' of particles, separated in space, where measurement of the one immediately affects the other; Einstein dubs the phenomenon "spooky action at a distance."

¹⁰ Changes in musicological discourse in 20th century do reflect changing paradigms in physics. For example, throughout the century the location of musical meaning has shifted from the 'Master narrative' or the Composer-centered aesthetic theories, through the hermeneutical model in which the meaning resides in the work of art (Schenker), through the audience-centered model (Taruskin 2005), and currently hovers above the head of the Listener (Kramer 2003), or the Performer (Abbate 2004). This shift loosely corresponds to the shift in our understanding of reality driven by discoveries and discourses in physics: classical physics with its world of objective things and eternal laws of nature parallels the Master- and the Work- hypotheses of meaning, while quantum physics with its stress on

This 50-year lag of society behind science is natural. As physicist Leonard Susskind points out, our brains were built for 3-D space, for rocks and sticks, and not for contemplating higher dimensions or curved spacetime. In order to make at all sense of quantum mechanics we use mathematics, and with enough exposure and practice we develop intuitions out of abstract mathematics and begin to think that way. But to explain these to the outside world that has not gone through the experience and the rewiring process could be extremely frustrating... so the best we can do is to use analogies and metaphors (Susskind 2015).

This brings us to the second reason why musicology may benefit of physics' insights. In both mathematics and music, awareness, pleasure, reason, and meaning are derived through recognition of abstract patterns and rhythms. Trained extensively and exclusively to observe the grouping and regrouping, inverting and juxtaposing of these patterns and to make sense of it, both mathematicians and musicians develop sense of tendencies, correlations, significances; new intuitions germinate. In this sense, both musicology and physics are, literally, poetic translations. Sharing this attractive but also uncomfortable position and comparing specific interpretations and methodology, should be a mutually beneficial, inspiring and insightful journey for both fields of study.

Artistic musical metaphysics as personal ontology

In 1963 Pierre Boulez pens an article titled "Sonate, Que me Veux-tu?" The original question is attributed to Bernard le Bovier de Fontenelle, a notable intellectual and encyclopedist of 18th century. Back in 1750s, Fontenelle was among those who, like Jean-Jacques Rousseau, could not make peace with the new form invading the music salons, the instrumental sonata; his exasperated – or perhaps ironic – question "*Que me Veux-tu?!*" was likely quibbling about the lack of meaning expressed loudly by the 'speechless' and 'empty' sonata (Jerold 2003). On a more general level, the question showcases a tension between the engagement music so palpably demands of us and its perceived lack of intelligibility. 200 years later, Boulez's use of the same question marks a profound change in our thinking of music – the instrumental sonata is now bursting with meanings; more so, it is able to observe itself, alert and aware that it is a music work. In his text the composer describes his desire to (write a

process and subjectivity favors the latter ones. As a speculative assumption, we might even sport the idea that Bohm's stance – i.e. despite the fundamental involvement of the observer in the construction of reality, particles (things) do have an objective existence, albeit altogether different from the one Newtonian physics prescribes – is also reflected in musicology, perhaps in the 'communicative' notion of meaning, i.e. as an emergent property of music (Cook 2001), or in music's capacity for transformative reflection (Kramer 2009).

sonata and to) change the idea of the music work as a complete in itself One and to free it into the multiple: to make from the Work a work-in-progress, to avoid the “straight trajectories of Euclidean geometries” between points of departure and points of arrival and to strive instead for the richness and freedom of the labyrinth (Boulez 1963).

These two meanings nested in the simple phrase *Sonate, Que me Veux-tu?* showcase a change in our relating to certain instrumental genres, but also to music in general. This change in attitude is only a consequence of changes in our attentions, scope, horizons. *Que me Veux-tu?* is an intimate question, like one’s relationship with music is. It is a universal one, too, in the sense that we all pose it. What are you saying? What do you mean? What do you want of me? Just as Fontenelle and Boulez widely differ in their intentions, the meaning we place in our question is strictly personal – the answer, probably, too. Yet, the truly remarkable aspect is, perhaps, not in the diversity of the intentions and the cleverness of the answers: it is in the act of asking alone – the idea that we feel the urge to pose a question to something like music. What may we expect?

This dissertation is my attempt to formulate my own “*que me veux-tu.*” As Deleuze says, everyone should be allowed to invent their own questions (2007: 1). The construction and the scaffold of a question, attending to it and witnessing its becoming are as important as the possible answers one finds, if not more so. Questions, like life, take time to grow. Finding my question has taken the better part of the last four years; now, in retrospect, I realize that it is simple: it is about the musical in music – a topic so many have contemplated and explored before me. But I could see this more clearly only after having walked the winding road of discovering the Implicate Order, learning about the Nonphysical Matter Reality, studying the weird psychology of the Performer, looking for the common core in numerous, diverse ideas of consciousness, imagining a Musika Reality Frame populated by musical creatures . . . “A composer enjoys setting out toward a certain horizon and arriving in completely unknown countries, whose existence he scarcely suspected at the beginning,” writes Boulez (1963: 44). His observation applies to the researcher, too. Starting off, I did not foresee that I am setting myself up with a task to create a new branch of musical metaphysics – this just happened in the process. Neither was I clearly aware that the questions I am asking about music are in fact questions about everything else, like life, existence, being, and that in pursuing these questions I am creating a world-hearing and a personal ontology – through music. Indeed, the amazing thing is that precisely because music is musical it can speak of things that are not strictly musical, as Scott Burnham exclaims (1997: 326).

There is another question blinking in red for some time now: exactly how objective and relevant a research such as this is? I am not sure how to answer it. Once ethnomusicologist Anthony Seeger was asked about the practicality of philosophy-inspired complicated texts people may or may not want to read. Agreeing that it is healthy to examine the philosophical bases of the questions we ask about music, Seeger answers by outlining three of the dangers inherent in focusing on philosophical issues: firstly, the discussion remains on abstract level that may be difficult to apply to music; secondly, there is a possible problem with the ethnocentrism of the ideas. And then,

A third (reason) is perfectionism – to think that if we cannot truly know something, it's not worth the effort to try for imperfect understanding. Clifford Geertz once remarked (...) that even though doctors know that perfectly sterile operating rooms are impossible to achieve, they don't therefore operate in sewers. Similarly, even though our approaches are inevitably flawed, and the difficulty of what we are trying to do may appear be overwhelming, that doesn't mean we shouldn't undertake it or that we should be unwilling to consider our biases openly. I tend to agree with Geertz on this. We need to be conscious of our own biases and epistemologies, but we should not because of them decide not to make the effort to do research and write (Seeger 2013: 6).

At the end of my research I find myself in a new, “completely unknown country” of which I have an imperfect understanding, supplied with a personal ontology, which provisions a place for both Me and the Musical as fair players with decent prospects. This is a kind of ontology that allows music, too, to invent and pose its own questions. Surprisingly, these are similar to mine. What do you want of me? asks music; what kind of sense are you making while playing and practicing? What can I give you? Funny enough, neither I nor music appear to hurry with answering: we just want to keep playing together. The answers, if and when they happen, fall as a collateral grace.