Musika: The becoming of an artistic musical metaphysics

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CHAPTER 2

Music as Implicate Order

> The phenomenon of music is given to us with the sole purpose of establishing an order in things, including, and particularly, the co-ordination between *man* [sic] and *time*.
>
> (Igor Stravinsky 1998).

What is the relationship between music and reality? Reality as it might be 'in itself' and as it appears to us via our consciousness? What are the concepts that not only address this question, but also inform it, clearing paths for further exploration? These were some of the questions and concerns of Chapter 1, which ended with the promotion of the Implicate Order as a potent point of departure. The Implicate and the Explicate Orders are concepts of David Bohm's, created in response to physicist's belief that the implications and interpretations of quantum mechanics discoveries – like the idea of reality as undivided and unbroken wholeness – have relevance and application both with-in and with-out academia and the laboratory. To make the mathematical thought available to larger public, and to exemplify the 'quantum' nature of the Implicate Order, convincing metaphors are needed. The following three are Bohm's major ones: i) consciousness, as our most immediate experience of the Implicate Order; ii) the hologram, as an analogy and a showcase of the Order demonstrating part-as-a-whole relationship and also the idea that everything is enfolded into everything; iii) music, through which we can actively perceive this Order. Therefore, the idea of the Implicate Order involves in itself all three actors in my questions – music, reality, and consciousness. A logical next step is to outline a model that demonstrates how and where music fits into the grand scheme of things, i.e. Implicate Order – Explicate Order – holomovement.

As it was shown in the previous chapter, music provides a clear example of the sequentiality at the basis of the Explicate Order. The exploration of musical ratios and measures, and also of the manner and the extent these relate to phenomena in the natural and celestial worlds, has been a point of fascination for scholars and mathematicians from Pythagoras to

Keppler.[39] Indeed, the musical soundscope[40] is populated by measures (tones, intervals, tetrachords, scales), structures (motifs, phrases, chords, modes, scales, forms), hierarchies (harmony, homophony, monophony, heterophony, polyphony, tonal tensions), systems (tonal, atonal, polytonal), and generally, elements[41] (beats, tones, topics, themes, motifs, phrases etc.). Beyond the scaffolds of the Explicate Order of spatially conceived and temporally actualized sound-elements, there whooshes and whirrs the smooth regime of flows, of tendencies and impulses engaged in compressing and stretching, bending and twisting, enfolding sonic possibilities. This is the process-reality of the Implicate Order, where building blocks are not things or elements, but moments (as explained in the previous chapter). Inferring from Bohm's description of how things get abstracted out of moments, we can extrapolate the following musical protocol: depending on and responding to the attentions, intentions and actions of the musicking agent, these pre-compositional moments of sonic virtualities are unfolded out of their implicate process (of continuous deterritorialization) and blown into existence through a medium (an instrument or a body), to emerge as musical forms.[42] While the intention, the movement, the medium, the musicker, the sound, the musical form and the listener are enfolded – connected and related – as capacities in the Implicate Order, they actualize in the Explicate Order as musical forms with spatial and temporal limits and limitations, with material, historical, geographical, cultural, and symbolic significations, in other words – as audiences and artists, as instruments and venues, shaping and fleshing the abstracted Musical assemblage, delivering its content and expression. The Operator is the holomovement, which contains both the virtual and the actual, and which also does the conversion from virtuality to actuality.

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[39] Where Pythagoras preferred mathematics and Kepler – geometry, they both endorse the rational and relational aspects of music manifested in the concept of Musica Universalis a.k.a. 'music of the spheres', which regards the proportions in the movement of the celestial bodies as music – the idea, thought to have originated in Pythagoras, is elaborated by Kepler in his book from 1619 *Harmonices Mundi* (see Bruhn 2005).

[40] I use the term 'soundscope' to denote the domain of sound – the breath, the range, the extend, the limits, the potential, in short - the territory of sound. I prefer soundscope instead of soundscape to avoid the scenic connotations of the latter. "Sound is not what we hear, it is what we hear *in*" – Tim Ingold *Against Soundscape* 2007.

[41] Bohm contrasts the Moments of the Implicate Order to the Things of the explicate; as a 'thing' has a physical concreteness about it, here I use the more abstract term 'element' as more appropriate for describing music, which even in its most drastic aspects is still an abstract phenomenon.

[42] The way of unfoldment of these moments from the vast range of potentiality in the Implicate Order is determined by "many factors" – "the way we think is one of these factors" (Bohm 2004: 76).

But if this dance of enfolding and unfolding, abstracting and manifesting, applies to everything, as Bohm suggests, where and what is the worth and the exceptional contribution of music but as mere illustration material? What are the features and aspects of music that make it an Implicate Order and involve it with consciousness? These queries direct us beyond the explicate 'Newtonian music' of elements and properties, measures and structures, and invite a deep listen into the (pre)musical dimension, where moments and movements flow before and after the brief coagulation of the musical event – into the dimension of the musical Implicate Order.

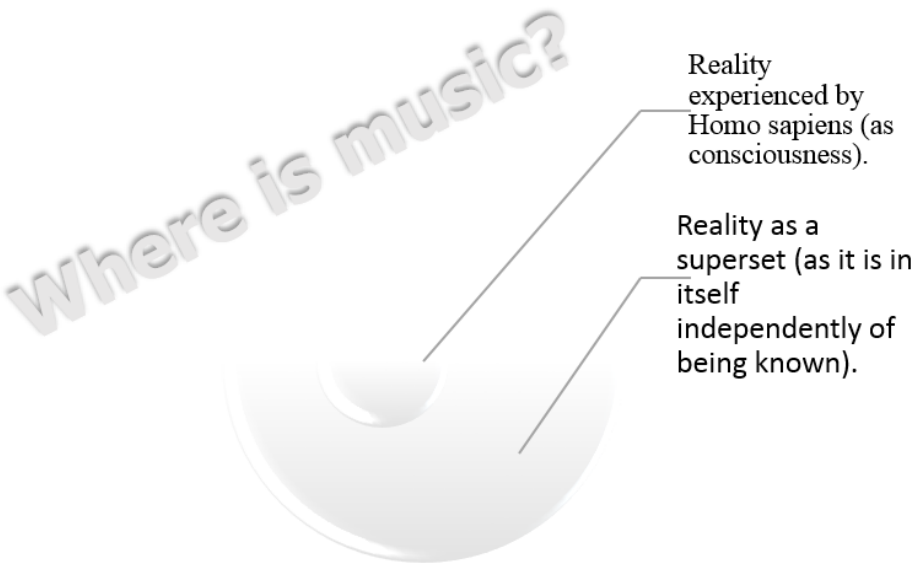

Figure 2// Larger and individually experienced reality. Where is music?

Moments as Musical transformations

> In listening to music [...] *one is actively perceiving an Implicate Order*. Evidently this order is *active* in the sense that it continually flows into emotional, physical, and other responses, that are inseparable from the transformations out of which it is essentially constituted (Bohm 2002: 253, emphasis in original).

This statement constitutes a pinnacle in Bohm's musical discussion. Among all examples of the Implicate Order of reality music is his first choice and a high-fidelity showcase. As the quote above is important for my discussion on music, I am now going to unpack, analyze, contextualize, and then synthesize anew its meaning.

The context in which this statement appears is related to the idea of the Implicate Order as a flow, in which moments – as hazily defined areas extended in space and with duration in time – are enfolded in the total structure, which they (each one of them) always already

contain within. To recall, in this Order, space and time are not determinate coordinates but rather abstracted derivatives. It is along these lines that Bohm likens listening to music to perceiving the Implicate Order, as in the statement above; this implies certain interesting correlations:

i) The Moments of the Implicate Order correspond to particular events in music, which we shall name Musical transformations;
ii) Musical space and time are abstracted derivatives with an alternative, non-determinate and non-explicate, so to speak, reality;
iii) Music and consciousness (as 'active perception') are enfolded in the Implicate Order as a single integral process, the process of the holomovement.

The idea that the Implicate Order is made by enfolded moments, and that each moment – being of the Implicate Order – enfolds the whole within, calls for a corresponding capacity of music, enabling it to describe itself in terms of itself, an aptitude to generating differentiation and dialectics out of its own uniformity and 'material'. This, in fact, is what Allan Keiler, a professor Emeritus of Music at Brandeis University, frames as the metalinguistic properties of music (Keiler 1981): the way music describes itself, as conventions, inner relations, structures and hierarchies by musical means, as music about music. It is important to underline the specifics of musical metalanguage. As Princeton professor Scott Burnham, Keiler's PhD student at Brandeis, elucidates,

> In verbal metalanguage, descriptive prose is distanced from the thing described. In musical metalanguage, a prototype such as the 2-3 [suspension] is not only a general descriptive model, it functions itself as an exemplification of the class. The thing doing the describing is also the thing described. As such, this 'abstract' prototype is at the same time palpable and concrete. Our recourse to such a palpable prototype facilitates the type of thinking that we have characterized as invoking the 'music itself'. It encourages the notion that music is about itself (Burnham 1997: 325).

The metalinguistic musical properties operate on a reality grid with temporal and spatial axes. To consider a temporal musical transformation of metalinguistic nature, we can observe the kinetic interplay juxtaposing rhythmical sound arrangements against a uniform metrical pattern. The 'kinetic interplay' is discussed in philosopher and music aesthetician Philip Alperson's article "Music as an art of time and Musical time" (1980). There, following Victor Zuckerkandl, the author describes how, in listening, we come to anticipate and rely on the 'metrical wave' which consists of accented recurring groups of (usually) 2,3 or 4 beats

that can be felt throughout all the ordeals and changes in the musical canvas as regular tidal symmetrical tension. This wave gives birth, support and context to irregular variegated combinations of long and short tones, which are articulated and performed always in relation to the underlying wave. As a result,

> the tones fall upon the wave that they themselves have generated; the wave imparts motion to the tones (Zuckerkandl 1956, in Alperson 1980: 410).

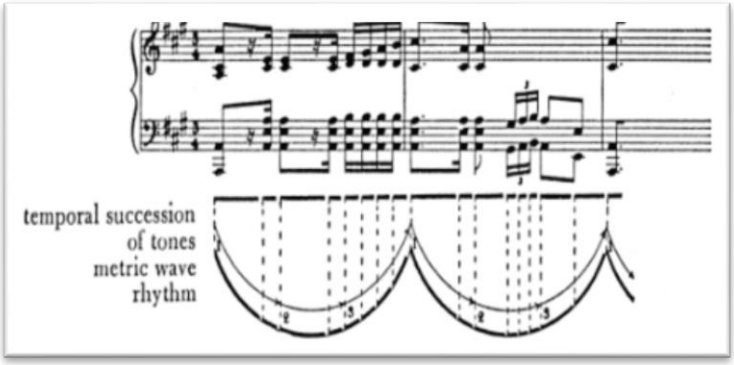

Figure 3// Metrical wave analysis of Chopin, Polonaise in A major, from Zuckerkandl, *Sound and Symbol*, p. 171

In other words, the rhythmical transformations enfold endless possibilities for arrangement and rearrangement in a musical universe ridden by exciting topological becomings, but these possibilities are far from being random: they implicate an underlying order, perspiring in the flowing 'metrical wave'. In this sense, could we not indeed contemplate each rhythmical transformation as a moment that enfolds the total structure?

Underlying Structures: Space, Time, Spacetime

Further, the metalinguistic ability of music extends beyond conspicuously temporal phenomena like rhythm and meter to spatial musical elements, like harmony and fundamental bass, as featured in Rameau's *corps sonore*,[43] and melodic linear motions, the basis of Schenkerian analysis (explanation follows). The idea of musical space is engrained in the very way we talk about and think of music. Notable example is the differentiation of musical pitch as 'high' and 'low'. These musical metaphors likely originate in our biology and design, e.g. in the position of the larynx and its movement up and down depending on the pitch of the sound, or in the vibrations produced in the body by high and low tones: whether

[43] The referenced theory of Rameau's in the context of Keiler's musical metalinguistics is concisely presented by David Cohen in Clark and Rehding's volume *Music Theory and Natural Order from the Renaissance to the Early Twentieth Century* (2006), pp. 68-92 esp. 70-71.

we sing or listen, low notes are usually felt in the chest while high – in the head (Géza Révész 1954: 69). A different spatial musical continuum is employed by the Amazonian tribe Kamayurá, made famous among musicologists by the Brazilian music archeologist Rafael José de Menezes-Bastos and his research on Kamayurá phono-auditory system, rooted in hearing rather than in seeing: the tribe's culture differentiates between 'big' and 'small' tones, referring to the size of the sound source.

On a different level, musical space is associated with the abstract structure built by the interdependent and interconnected voices of the musical text(ure). In his article "Musical Time/Musical Space" (1980) Robert P. Morgan, Emeritus Professor of Music in Yale University, defines musical space as "the framework within which, and through which, the actual sequence of musical events is shaped," underlining the interdependence of musical time and musical space. The latter, he adds, is the space of relationships, or "pre-compositional," "allowable," possible musical relationships that define a "system of structural conventions, not unlike those of (…) grammar" (Morgan 1980: 529). Tonality is one such musical space, proposes Morgan. In a meaningful parallel with Bohm's notion of an implicate, underlying holistic Order,[44] Morgan comments on music theorist Heinrich Schenker's idea of musical ornamentation, as "the expansion of a stable structural core (…) through various kinds of elaborations," the following:

> The [Schenkerian] concept of ornamentation, encompassing the assumption of a more changeable and varied musical surface that can be peeled away to reveal a stable background, is fundamentally "spatial" in orientation and accounts for an important way in which music produces a spatial impression: *in the moment of experiencing the elusive, constantly evolving transformations of the note-by-note succession of a composition, the listener instinctively or otherwise perceives its relationship to a more fundamental and "orderly" basis* (Morgan 1980: 533 emphasis mine).

Morgan's premise in this paragraph is to define and qualify a musical 'spatial impression'. However, an impression that is dependent on, and definable in terms of time, e.g. an impression that relies on the experienced "transformations of note-by-note succession of a composition" is not entirely spatial, for space could not be 'transformed' or have a 'succession' without time. A small proviso that the transformations in question are of a

[44] Notably, both *The Implicate Order* and "Musical Time/Musical Space" appeared in 1980.

spatio-temporal nature should remedy the issue enough so we can focus on the essential meaning of Morgan's: his comments on notions like 'background' and 'order'.

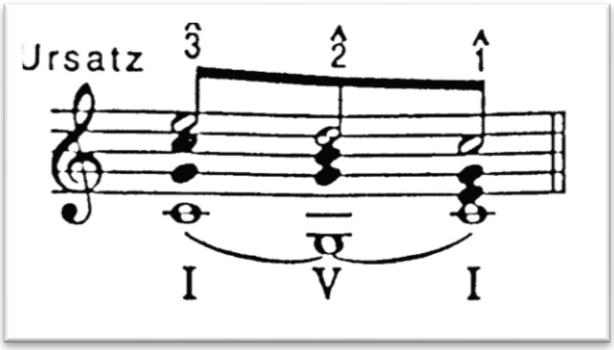

Figure 4// The Ursatz in Schenkerian analysis is the distilled, basic model that spans the whole of the musical piece. All that 'happens' in the piece is but an elaboration, ornamentation, variation of the Ursatz.

The idea of a musical background in the context of Schenkerian analysis has a very concrete meaning – the background, or the Ursatz (fig. 4) as Schenker calls the smallest, most basic unit of linear unfolding, is "a brief and primarily abstract pattern containing only the simplest and most direct motion through the tonal space defined by the tonic triad" (Ibid.:531). Schenkerian analysis consists of peeling layer after layer of musical ornamental tissue (as harmonic, melodic, tonal, rhythmical hierarchies and relationships) in order to reach the core – the simple but dense Ursatz with its creative immanent potential. If one can feel the implicate presence of the background in each musical transformation a composition undergoes as a stable fundamental underlying order, it is because each moment-as-musical-transformation is in a sense (made) *of* the Ursatz and has its content synthesized by latter's basic ingredients. To the tonal system and its musical forms, the Ursatz is what the ancient Morganucodon is to modern Sapiens. Like an Ursatz, Morgie – the first mammal – represents a topological map bursting of potential and possibilities, which each mammalian species is but an articulation of. Deep down in our bones, under layers upon layers of flesh and time, lurks the lowly, opportunistic and robust rat: invisible, but always present – like the Ursatz beneath the melodic flourishes of Chopin's Waltz.

The similarities between the concept of the Ursatz and the Implicate Order are evident: Bohm's description of latter's moments corresponds to the notion of Musical transformations on the face of the musical background. The idea of musical background containing and enfolding virtually all possible musical transformations becomes particularly lucid in another example of Morgan's. Tonality is just one type of musical space, as the 'space' of pre-compositional relationships' conventions, existing "*in abstracto*, in a synchronic, always present configuration" (Ibid.: 530). Another such 'space' is Arnold Schoenberg's response to the shift away from tonality began at the turn of the century – the twelve-tone system (fig.5). The twelve-tone row or series "represents a fixed, *atemporal*

background from which the specific events of the composition – in Schoenberg's terms, the 'musical ideas' – acquire their structural validity and justification. The series, then, is not unlike an Ursatz," concludes Morgan (Ibid.: 535 emphasis mine):

> he calls, significantly, "the two-or-more dimensional space in which musical ideas are presented," a space that "demands an absolute and unitary perception." Moreover, this space is unmistakably "simultaneous" in character: "All that happens at any point of this musical space has more than a local effect. It functions In his first article on the new system,[45] Schoenberg introduces it in reference to what not only in its own plane, but also in all other directions and planes, and is not without influence even at remote points." (Morgan 1980: 536).

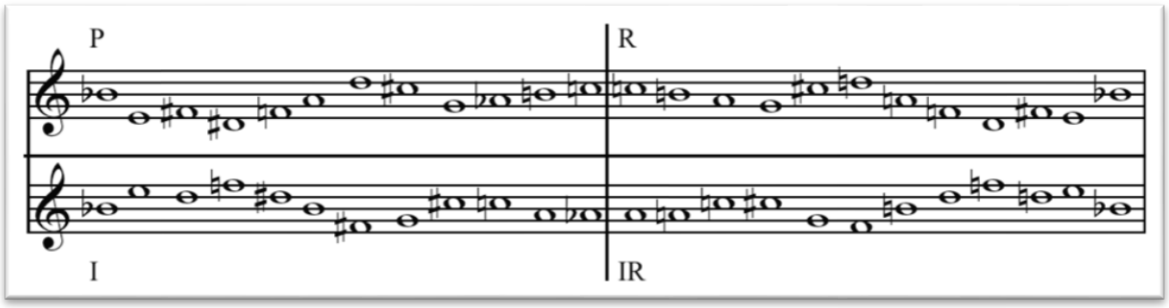

Figure 5// Schoenberg's Variation for orchestra op.31 tone row series – all 12 notes of the chromatic scale are treated equally, none is repeated within the row. The row is a subject of four transformations: Prime (the original denoted P), Retrograde (R), Invert.

While Schoenberg presents this musical space as "two-or-more dimensional," it seems it is not exactly or not only 'space' as in a Cartesian coordinate system, but also 'space' as in 'place,' 'world', 'realm' or 'reality,' although tags like "unitary perception," "simultaneous," and especially "nonlocality" reveal yet another meaning of 'space,' kindred to the star-concept of post-relativity physics, the quantum *field*. As in the Schoenbergian musical space, in the quantum field all is interconnected, simultaneous and nonlocal, space and time and interlaced and relational. Bohm gives this space/field yet another name, order, to emphasize its logical, causal aspect. Indeed, the thought of Schoenberg quoted above, seems incredibly modern and attuned to the leading scientific ideas of his époque.[46]

[45] Arnold Schoenberg, "Composition with Twelve Tones" (1941) in *Style and Idea* (1950).

[46] It only seems natural that Schoenberg and Einstein, whose paths crossed at least twice – in Berlin and later, the USA – should have shared ideas and even consulted with one another, both being the kind of revolutionary prophets in their fields. Indeed, the composer reached out to the physicist on three separate occasions, evident in their preserved correspondence (on the pressing then topic of

Morgan insists that the 'musical space' defined by Schoenberg is "atemporal," and here again I am to express some reservations for the simple reason that space is of no use for us, musically or practically, if we don't conceptualize it within the context of its temporal aliveness and potential for transformation. In the musical order, described by Schoenberg as the birthplace of 'musical ideas' (or musical events, or musical transformations, or moments), space and time are indeed interlaced, enfolded; they are also implicit. Space and time birth forth and actualize the 'musical ideas' only when they are abstracted explicitly in the acts of music-making. This implicit state of space and time demands, Schoenberg proclaims, a unitary perception. An example of the latter is the idea of the unity of the melodic and harmonic dimensions, seen by the composer as equivalent in any given musical figure, reminds us the Schoenbergian scholar John Covach:

> Since melodies unfold as series of individual tones in time, and chords happen as combination of musical tones in space, viewing these as musical elements requires a unitary perception – a unitary perception of time and space (Covach 2007: 2).

While it is true that the problem of musical space and time is complex, it is important to remember that while in the Implicate Order these phenomena may or may not have a separate existence (or existence at all for that matter[47]), in the Explicate Order we inhabit, we should indeed contemplate them in a unitary spirit. And when we separate these dimensions to consider them each on their own – which is often tempting and at times useful – we should appropriately remember that for a hundred years already the universe speaks to us not through the Cartesian grid but through the more upgraded Minkowski space or

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Zionism), and the two luminaries even met each other (Tonietti 1997), but it seems a real meeting of minds did not occur: Einstein was simply not interested in Schoenberg's music, which he apparently found unappealing, and the idea of the twelve-tone-system and philosophy of realms existing outside space and time, simply "crazy" (Ibid., 13). One is left to wonder what it would have been if Schoenberg's ideas did meet an open-minded quantum mechanics' conceptualist: composer's vision on music commingling with the quantum world of nonlocality, process and the unitary character of event, measurement and observer could have resulted in unpredictable but surely exciting ideas.

[47] Einstein did indeed maintain that "the distinction between past, present and future is a stubbornly persistent illusion" (Hawking 2009 back cover). Bohm admitted that we know very little about the nature of time (dialogs with Renée Weber https://ontoscopy.net/extras/bohm-a-change-of-meaning-is-a-change-of-being). Recently, Robert Lanza's biocentric perspective openly questions the reality of time, interpreting the latter as a perceptual sense: https://www.psychologytoday.com/us/blog/biocentrism/201202/does-time-really-exist .

spacetime continuum.[48] So, as a rule of thumb I propose to i) Always take time with a grain of space, and ii) Indulge in space-floating only when ready to time-flow.

Now that we have established such a sensible rule, let us immediately taste its usefulness by violating it, to considering the phenomenon of 'musical time'. A reasonable working attitude would be to clarify that by addressing 'musical space' I understand the interrelational, textural aspect of music, and by 'musical time' I mean the musical spacetime continuum in its more animated, motive mode of being.

Musical time?

> In listening to music [...] *one is actively perceiving an Implicate Order*. Evidently this order is *active* in the sense that it continually flows into emotional, physical, and other responses, that are inseparable from the transformations out of which it is essentially constituted (Bohm 2002: 253, emphasis in original).

Chapter 2 began by outlying three 'technical' implications the quote above holds. Two of them I already addressed and discussed. Analogies were established between Bohm's Implicate Order and music: firstly, as correspondence of moments to what I called Musical transformations – i) moments are (made) of the Implicate Order as Musical transformations are (made) of music, and ii) each moment enfolds and refers to the totality of the Order as each musical transformation enfolds and refers to the entirety of the musical background, – and secondly, through the unmanifest, unitary nature of space and time in both music and the Implicate Order. Now I explore how music, consciousness and the Implicate Order might be involved into the flow of the holomovement. As Bohm associates the Implicate Order with a continual flow into responses of different nature, I approach the investigation of this process through the musical idea of flow, the notion of 'musical time'.

That music has a relationship with time is seldom questioned. To begin slow and careful, we can contemplate, as French philosopher Michel Serres does, that "whether music follows or produces time is uncertain,"

[48] With his special relativity theory from 1905, Albert Einstein proposed that space and time and interconnected in *c*, the speed of light; three years later, in 1908, Einstein's teacher Hermann Minkowski introduced a geometrical interpretation of relativity theory, the four-dimensional spacetime continuum now known as Minkowski space, which greatly assisted Einstein's general theory of relativity from 1915.

> But whichever it is, without music, would we live, would we know, would we count the duration that music seems to follow as a shadow, the duration, which seems to follow music as a charm? Music, this timeless black box, is duration's birthplace (in Detry 2012, translation from French mine).[49]

Many, as we shall see, agree on this point – that there is a deep connection between music and our perception of duration, or time flow; others don't. The controversy of this topic is showcased in Philip Alperson's article cited earlier, "'Musical time' and 'Music as an Art of Time'" (1980): where Alperson wholeheartedly embraces the latter, he is conspicuously ill-disposed regarding the former. Whether musical time really exists or not, its concept and supporting arguments are important factors in the discussion Bohm proposes and should be examined with care. The basic premise of the construct 'musical time' is that there is a kind of time, distinct from other kinds of time, which is at work when we listen to music. To present his argument, Alperson quotes from a large body of scholarly research on the topic, including Hegel and Bergson, Zuckerkandl and Langer – authors with significant contributions on the subject of music and time. The aspects of 'musical time' I consider below are as follow: i) music creates virtual time, ii) through its manipulation of time, music suspends our identity, and iii) the composer creates a semblance emergent from the material world but distinct from it – it is only in this last sense that Alperson considers 'musical time' a valuable and viable construct.

In essence, the idea of the 'semblance,' to which I return later in this chapter, is but a supporting argument of Susanne Langer's (*Feelings and Music* 1953). The philosopher propounds the concept of virtual time as a third, radically different kind from the subjective and the clock-time.[50] The subjective, or psychological time is our individual sense of passage of life, filled with and made by 'tensions,' she explains: physical, emotional, psychological tensions, which give time quality, rather than form. The clock-time is more precise, reliable, and measurable, hence more practical time; it is an abstraction from the subjective time, an

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[49] The original reads: Je ne sais si la Musique suit ou produit le temps… quoiqu'il en soit, sans Musique, vivrions-nous, connaîtrions-nous, compterions-nous la durée qu'elle semble suivre comme son ombre, qui semble la suivre comme un charme ? Musique boîte noire intemporelle, source d'où naît la durée.

[50] Clock-time vs. subjective or psychological time is just one dichotomy in the dialectics of time, one that directly follows the argument Einstein makes, that there are only two kinds of time, physical and psychological, and that the latter is the unreliable kind. However, there are other angles on time difference. The philosopher Henri Bergson, for example, famously presents the idea of the Absolute, 'master' time vs. human time (*Time and Free Will* 1889). Philip Tagg distinguishes between linear (clock-time) vs. cyclical vs. 'present' time ("Understanding Musical Time Sense" 1997).

imaginary line tailored for convenience as a "one-dimensional infinite succession of homogenous moments" (Langer, in Alperson 1980: 412). In contrast, the musical time is not abstract but perceptual since we hear it, maintains Langer; it is a multidimensional time with form, organization, volume and distinguishable parts. This time is qualitatively different than the other kinds of time:

> All music creates an order of virtual time, in which its sonorous forms move in relation to each other… For nothing else exists there…. Music makes time audible, and its form and continuity sensible (Langer, in Alperson 1980: 411).

Furthering this insight, I propose that the musical time encompasses the other two, the clock- and the subjective time. It could be argued that the musical beat – the 'metric wave' – as an "infinite succession of homogenous moments," gives shape to the indeterminacy of fleeting time moments by producing determinateness and a continuously recurrent pattern, serving as 'physical time', and the rhythm emerging out of this uniformity sculpts a complex, subjective soundscope. Langer's idea of virtual time Alperson links to a slightly older text on music and time, English essayist Basil de Sélincourt's work *Music and Duration* from 1920, where the ultimate musical-temporal question is posed explicitly: What are the relations in music between length and meaning, duration and effect? The answer is derived through de Sélincourt's early intuitions of a practicing musician. According to those, the time of music is an ideal time, superior to both subjective and clock-time: it is not only that music "suspends the ordinary time" and "offers itself as an ideal substitute and equivalent" (Sélincourt, in Alperson 1980: 411): in its process, music suspends out very identities.

> Music demands the absorption of the whole of our time-consciousness; *our own continuity must be lost in that of the sound we listen*. The conception is difficult because of its inclusiveness. Our very life is measured by rhythm: by our breathing, by our heartbeats. These are all irrelevant, their meaning is in abeyance so long as time is music… [music] reduce[s] the passage of time to its irrelevance (Ibid. emphasis mine).

In other words, in suspending the ordinary time, in suspending our own continuity and our very identity, music offers itself as an "ideal substitute and equivalent." Or as Julian Jaynes notes 50 years after de Sélincourt, in listening we become the other and simultaneously let the other become part of us (1990:97). It follows, then, that when the Other – the one who does the 'talking' – is music, in listening to it we become it, as simultaneously music becomes us. The immanent organization integral to music, its rhythms and patterns resonate with our

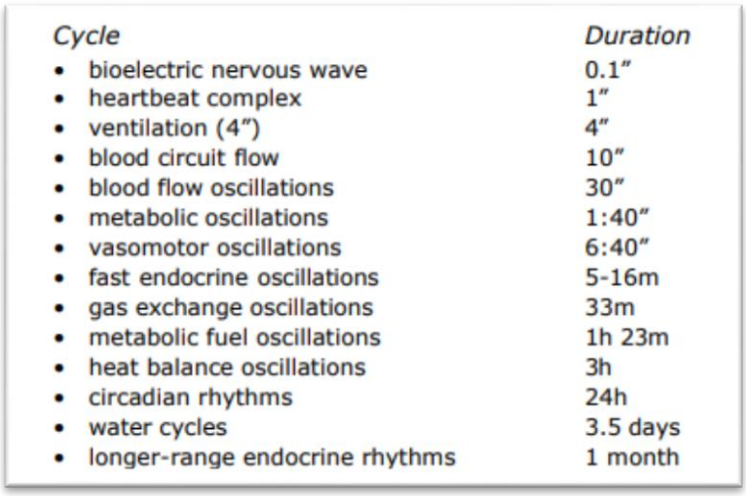
own immanent organization, our own rhythms and patterns; the musical movement entrains us, enfolding our self into itself. There, in the vacillations of a poem without words, we listen to the space between the sounds, engrossed in "that which cannot be said and on which it is impossible to remain silent."[51] In other words, in listening to music we appear to be intently focusing on the sequential ordering of modulated sounds and silences, rhythms, patterns, scales, points and lines, verticals and horizontals, for "music is an art of pure sonic design" (Kivy 1991). But 'appear' here is merely a key to unlock the background: for it is not the structure as such we are attending to, but rather the unified whole it refers to – that, which require a unitary perception.

Schoenberg regards this whole as a pre-compositional space, as a system of all possible structural musical conventions, e.g. tonality or the twelve-tone system; Schenker thinks about it in terms of the relationship Ursatz – ornamentation. While both accounts elaborate on the peculiar organizational nature of the musical context, G.W. F. Hegel probes into its meaning:

> The beat of music has a magical power… This recurrence of equal time intervals does not belong objectively to the notes and their duration. To the note as such and to time, to be divided and repeated in this regular way is a matter of indifference. The beat therefore appears as something purely created by the subject (composer), so that now in listening we acquire the immediate certainty of having, in this regularization of time, something purely subjective, and indeed the base of the pure self-identity, which the subject inherently possesses as his self-identity and unity and their recurrence in all the difference and most-varied many-sidedness of experience. Therefore, the beat resounds in the depths of our soul and takes hold of us in the virtue of this inner subjectivity at first abstractly self-identical. From this point of view, it is not the spiritual content, not the concrete soul of feeling which speaks to us in the musical notes; neither it is the note as note that moves us in our inmost being; on the contrary, it is this *abstract unity, introduced into time by the subject, which echoes the like unity of the subject* (Hegel 1998: 249 emphasis mine).

[51] "Ce qu'on ne peut dire et ce qu'on ne peut taire, la musique l'exprime." Attr. Victor Hugo

It could, then, be said that the *subject*, whom Hegel calls Composer and we could more generally address as Musicker,[52] starts off with customizing a portion of the so-called pre-compositional space. By setting the initial coordinates and conditions, e.g. 'musical time', 'musical space', musical pre-compositional structures or 'background', the Musicker slowly and meticulously ornaments a particular musical whole that represents the larger whole from which it has emerged as an "abstract unity:" unity that "echoes the like unity of the subject."



Cycle	*Duration*
• bioelectric nervous wave	0.1″
• heartbeat complex	1″
• ventilation (4″)	4″
• blood circuit flow	10″
• blood flow oscillations	30″
• metabolic oscillations	1:40″
• vasomotor oscillations	6:40″
• fast endocrine oscillations	5-16m
• gas exchange oscillations	33m
• metabolic fuel oscillations	1h 23m
• heat balance oscillations	3h
• circadian rhythms	24h
• water cycles	3.5 days
• longer-range endocrine rhythms	1 month

Figure 6// List of natural rhythms affecting human behavior. 'm' = minutes, 'h' = hours. 'Ventilation' is one complete cycle of breathing in and out. (adapted from Michael Young 1988, in Tagg 1997:5).

At this point we have two wholes, two unities, two selves – the musical one and the musicker's. Where de Sélincourt reads into the association between these unities the typical power dynamics of a dominance-submission relationship ("our own continuity must be lost in that of the sound we listen"), and Hegel interprets it in dialectical terms, as a like, interactive two-some ("the abstract unity… echoes the like unity of the subject"), philosopher Peter Sloterdijk proposes 'immersion with sound,' in the act of which emerges a state not unlike transcendence. In his essay "Where Are We When We Listen to Music?" (1993), Sloterdijk elaborates on the difference between the faculties of seeing and hearing, on the perceived 'distance' ingrained in the former contrasted by the perceived 'depth' of the latter. 'Seeing' implies distinction between the object and the subject, a distinction characterized by non-involvement and by external relationships; listening, as a mode "of being within sound" and "floating in the auditory space," is a self-immersive act, a "suspension of distance" which

[52] Musicking is a term proposed by Christopher Small in his eponymous book from 1989, as any activity related to or involving musical performance. Musicker is the entity who musicks.

borders dissolution (Sloterdijk 1993). There is something timeless in this "floating in the auditory space," it is as if in the very act of being within sound we step out of time to suspend distance, i.e. any partial, singular, distinct experience, and also to suspend our sense of self.

A direct correlation emerging from this reasoning is that our sense of self is in some way bound to our sense of time. This, indeed, is what Robert Lanza, an acclaimed stem-cell researcher and author of *Biocentrism: How Life and Consciousness are the Keys to Understanding of the Universe* (2009), underlines: time and space are forms of "animal intuition," "modes of understanding," "part of the mental software that molds sensations into objects" … in short, from a biocentric point of view, "time is the inner process that animates consciousness and experience"[53] (Lanza 2012).

With this in mind, let us retrace the following course.

> Langer sets a trajectory of musical thinking with the proposition of 'musical time' as a virtual alternative of the physical/psychological time.
>
> > Sélincourt proposes that in dwelling in this musical time we lose our personal continuity.
> >
> > > Hegel sees in the beat introduced into time by the composer the foundation for the emergence of the subjective musical Other,
> > >
> > > > Sloterdijk submits the idea of the floating auditory space the Self immerses into being-within-sound:

[53] This view on time has an illustrious line of predecessors, as Lanza himself admits, "Biocentrism argues that the primacy of consciousness features in the work of René Descartes, Immanuel Kant, Gottfried Leibniz, George Berkeley, Arthur Schopenhauer, and Henri Bergson. He sees this as supporting the central claim that what we call space and time are forms of animal sense perception, rather than external physical objects" (http://www.robertlanzabiocentrism.com/biocentrism-wikipedia/).

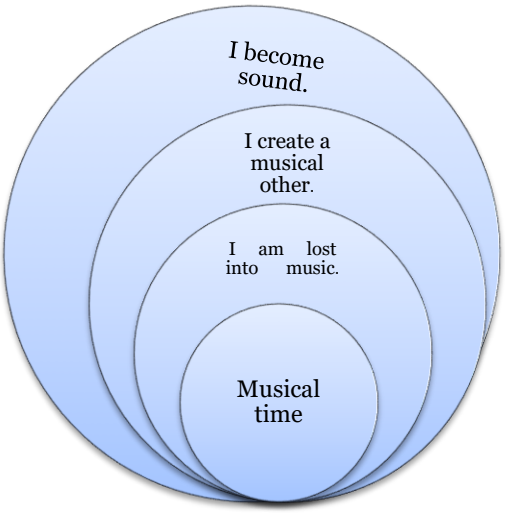


Figure 7// Three forms of being with sound.

Indeed, where I AM, when I listen to music? What do I do, when I listen to music? Do I lose myself into music? Do I receive and interact with the created 'musical Self'? Or do I become sound?

The order of attention.

Not precisely the spatial where, but the essentially ontological what is the question that interests Bohm: What do we do, when we listen to music? He addresses the issue vicariously, through enquiring into the order of the movement of attention. We infer that the movement of attention must have an order fitting with the order of the observed object, for otherwise we will not be able to grasp the object in question even when it stays before our very eyes:

> If we try to listen to a symphony while our attention is directed mainly to a sequential time order as indicated by a clock, we will fail to listen to the subtle orders that constitute the essential meaning of the music (Bohm 2002: 49).

Here, Bohm refers to what Langer calls 'virtual,' and de Sélincourt 'ideal,' time – the time order, that is intrinsic to music and distinct from the sequential clock-time or the psychological time. This musical time order operates on inclusiveness and integrality premises, creating and maintaining a whole out of plurality of discrete, disparate elements, that are not given all at once, but follow each other in temporal sequence. Apropos the nature of this musical time, philosopher Joan Stambaugh, the renowned English translator of Heidegger's *Being and Time* (1927), proposes something that sounds almost strange:

> The moment of musical time is not present, it is at best present*ing*, creating the temporal tension of what has come before and what is to come, the tension of the whole in the moment. Thus, the essential characteristic of musical time is not a vague

> kind of flowing at all. It is a tension peculiar to music itself (Joan Stambaugh, "Music as a Temporal Form" [1964] in Alperson 1980: 416).

The idea that the moment of musical time is "not present" as the hardly significant station of NOW in the clock-time train travelling PAST-FUTURE, but is instead an active agent of creation, sounds like an insight borrowed from the quantum realm of the Implicate Order. Even more particular about the character of the musical time is the description of Henri Bergson, the French philosopher and a Nobel prize winner, who debated with Einstein on the subject of time in 1921: a historical debate that traced a demarcation line between humanities and science epistemologies, and one that cost Einstein the Nobel Prize for his theory of relativity.[54] In his *Time and Free Will* (1889), Bergson proposes the idea that there is a human, living time, distinct from the scientific time, which he calls duration:

> Pure duration is the form which the succession of our conscious states assumes when our ego lets itself live, when it refrains from separating its present state from its former states. For this purpose it need not be entirely absorbed in the passing sensation or idea; for then, on the contrary, it would no longer endure. Nor need it forget its former states: it is enough that, in recalling these states, it does not set them alongside its actual state as one point alongside another, but *forms both the past and present states into an organic whole*, as happens when we recall the notes of a tune, melting, so to speak, into one another. Might it not be said that, even if these notes succeed one another, yet we perceive them in one another, and that their totality may be compared to a living being whose parts, although distinct, permeate one another just because they are so closely connected? The proof is that, if we interrupt the rhythm by dwelling longer than is right on one note of the tune, it is not its exaggerated length, as length, which will warn us of our mistake, but the qualitative change thereby caused in the whole of the musical phrase (Bergson 2001: 100).

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54 According to Jimena Canales, author of *The Physicist and the Philosopher: Einstein, Bergson, and the Debate That Changed Our Understanding of Time* (2016), it was the Chairman of the Nobel Comity for Physics himself, who explained Comity's decision to award Einstein for his discovery of the law of the photoelectric effect instead of relativity, this: "It will be no secret that the famous philosopher Bergson in Paris has challenged this theory." For a quick reference see here: http://nautil.us/issue/35/boundaries/this-philosopher-helped-ensure-there-was-no-nobel-for-relativity

Bergson's contribution on the matter of music, time and the construction of the self powerfully resonates with Bohm's ideas.[55] In the quoted paragraph, Bergson explains the concept of duration through what Bohm later names 'the order of movement of attention:' it is a depiction of the reality of our conscious state as an awareness simultaneously holding what happened before together with what happens now, without necessarily focusing on neither. In describing this model Bergson reaches out to musical analogy, comparing the musical whole in its totality (e.g. a melody) to a living being, echoing Schoenberg's idea of the unitary perception of music and Hegel's observation of the correspondence between the abstract unity of the musical whole and like unity of the subject.

For his purposes, Bohm describes the tension of the whole in the moment, i.e. the order of attention or the state of our conscious self, using, like Bergson, a musical analogy:

> At a given moment a certain note is being played but a number of the previous notes are still 'reverberating' in consciousness. Close attention will show that it is the simultaneous presence and activity of all these reverberations that is responsible for the direct and immediately felt sense of movement, flow and continuity.[56] To hear a set of notes so far apart in time that there is no such reverberation will destroy altogether the sense of a whole unbroken, living movement that gives meaning and force to what is heard.
>
> (…) One does not experience the actuality of this whole movement by 'holding on' to the past, with the aid of a memory of the sequence of notes, and comparing this past with the present. Rather, as one can discover by further attention, the 'reverberations' that make such an experience possible are not memories but are rather *active transformations* of what came earlier, in which are to be found not only a generally diffused sense of the original sounds, (…) but also various emotional responses, bodily sensations, incipient muscular movements, and the evocation of a wide range

[55] Although Bohm echoes a number of ideas and concepts of Bergson, it is highly unlikely that he was familiar with Bergson's philosophy. The latter's work has gradually and steadily sunk in obscurity after his death in 1941, obscurity reaching its peak in Bohm's late years. Given that Bohm customarily gives credit to preceding him philosophers, like Whitehead, Leibnitz etc., it does not make sense that he would borrow from Bergson with no credit.

[56] The phenomenon observed by Bohm is not dissimilar to the discussion offered by David Huron in *Sweet Anticipation* (2006) – where Bohm focuses on the nature of movement, Huron elucidates the nature of emotion arousal, both sharing a similar psychological mechanism. Huron's ITPRA theory of expectation (a flowing chain of imagination-, tension-, prediction-, reaction-, and appraisal response) could be considered as a psychological-emotional Implicate Order at work when we listen to music.

> of yet further meanings, often of great subtlety. One can thus obtain a direct sense of how a sequence of notes is enfolding into many levels of consciousness, and of how at any given moment, the transformations flowing out of many such enfolded notes inter-penetrate and intermingle to give rise to an immediate and primary feeling of movement. (Bohm 2002: 252-3, emphasis in original).

Here, Bohm uses music's key characteristics to illuminate subtle aspects of consciousness' mechanics. In his view, the perception of movement in music is – like the succession of our conscious states – an event not simply bridging the before and after, not even presenting and creating them as Joan Stambaugh proposes or forming past and present into an organic whole as per Bergson's model, but enfolding and actively transforming the past. The wording is important – 'enfolding' is a dynamic, holistic, topological, active term that stresses the continual process and the unified character of the described phenomena. The perception of movement in music exemplifies how consciousness works: the faculties of attention, awareness, thinking, emotional response, and understanding, are operating not on the basis of a recall of the past as static memories, Bohm submits, but by active transformations of the previously heard (felt, smelled, seen) moments, of "what came earlier." This moment in the movement contains the previous and the next one in itself; the presence (re)creates the past and prepares the future; one holds all – like a hologram, like an Ursatz. Michael Young, a sociologist time-investigator and author of the original *Metronomic Society: Natural Rhythms and Human Timetables* (1988), comments on "the stretched simultaneity of the present [that] makes possible the sense of movement" (in Tagg 1997: 6). This 'simultaneity' is indeed what Bohm denotes, when he analyzes the capacity of the musical moment to enfold both past and future. The attentive listening consists of numerous simultaneous processes of enfoldment and unfoldment, in which what happens at any given moment is an integral part of the whole, where 'the whole' stands for a musical phrase, a movement, a piece, a period, a genre. . . but also for the accompanying psychical, emotional and physical responses of the listener. These simultaneously processing ensembles or suborders of sonic, emotional, mental, muscular, temporal or conceptual nature intermingle and interpenetrate in their enfoldment in various degrees, to produce a change in the arrangement or structure of the entire set, maintaining a certain totality of order.

Thus, through an investigation of the intricacies of musical (space)time we have arrived at what I defined at the beginning of this chapter as the 'third implication' – the idea that music and consciousness are enfolded in the Implicate Order as a single integral process, the

holomovement. Now we shall consider the practical dimension of this implication in musical performance.

Musical assemblage

"In listening to music, one is actively perceiving an Implicate Order" (Bohm 2002: 253). In Bohm's universe music exemplifies how attention *performs* and binds together the faculties of consciousness in the present moment while simultaneously maintaining 'reverberations' of past ones within an unbroken flow. In terms of Implicate Order, the significance of music is primarily in the "whole unbroken, living movement." Music emerges as a functioning model not only of the Implicate/Explicate Orders but also of consciousness mechanics and – through the commented above stretched simultaneity of the musical moment – music demonstrates, in some way, the holomovement. Bohm conceives of the holomovement as an Operator: it contains both the virtual implicate and the actual Implicate Orders, and also does the conversion from virtuality to actuality in a state of unending flux. The holomovement is "life-implicit" and it includes in its totality the principle of life: "it is the ground both of 'life explicit' and of 'inanimate matter', and this ground is what is primary, self-existent and universal" (Bohm 2002: 247).

Music, consciousness, Implicate Order. At this point I have established that these ontological entities in the larger Bohmian universe are connected. We can picture them as special cases – different scales – of the holomovement. As articulations of a universal template. As ornamentations on the surface of an Ursatz. As reality frames on a flat plane of immanence.

We can also think of music, consciousness, and the Implicate Order as fractals, using the definition of Benoit Mandelbrot, the mathematician who coined the term in 1975: a fractal is a shape made of parts similar to the whole in some way (in Feder, 1988: 11). As complex patterns with disparate resolutions, but fundamentally similar across their different scales and beyond their local rule sets, music, consciousness and the Implicate Order – each on its own – offer us a peek into the deep nature of reality. The unique situation of music among the others in the set transpires out of its betweenness: music crosses over between implicate and explicate in a most tangible, visceral manner. Including and transcending its sensual sonic dimension, music manifests the holomovement, involving all levels of our being, enfolding our consciousness, demanding our attention to its process. Such thinking about music, as a holonomic Operator inseparable from the virtual and actual realities it inhabits and the environments it creates, invites a corresponding (re)thinking of the musical work. Enters the Musical assemblage.

Assemblage is a framework proposed by Deleuze and Guattari in their volume *A Thousand Plateaus*, often conceptualized as the dynamic state of a whole vs. its static version as a territory. The Assemblage partakes in the rich Deleuzian ontology, plugged right into concepts like the Body without organs[57] and the becoming. In philosophy Deleuze arrives at his concepts and ideas walking on the edge of the known reality, much like Bohm does, in physics. There is a number of similarities between Bohm's and Deleuze's views on and approach to the universe – they both treat it as "unfolding origami," to use the expression of Timothy S. Murphy from his essay "Quantum Ontology: A Virtual Mechanics of Becoming" (Murphy 1998: 221), where he compares the ontologies of Bohm and Deleuze and likens them to a universe, which is always enfolding in itself, a creative shapeshifter rejoicing at becoming.[58]

The assemblage is a compound whole, a symbiotic emergent entity, whose parts are characterized by relation of exteriority. Each and any of the elements of the assemblage could be plugged in and out of the whole, tending its individual existence. An assemblage could be comprised of human and non-human agents, of material and non-material becomings, of physical and psychological processes, of discursive and non-discursive elements, or actual and virtual phenomena. The result is an emergent becoming, created by the constituent parts, assembled around an image of thought. As a character in the theater of Deleuzian concepts, the assemblage is a multicultural, mercurial, acting and affecting entity, whose main features are the connectivity of its contents, its collective expression, and its plasticity suspended between the desire to territorialize and the impulses to deterritorialization.

A definition such as this is quite suitable for a complex entity suspended in time and space like the musical work, one which feels equally comfortable in both the virtual and the actual, one made of multiple 'parts'. Some of the large building blocks that constitute the assemblage of the musical work are the composer, the trace (score), the instrument(s), the

[57] I explore the Body without organs in the last interlude of my dissertation, the InterZone.

[58] It is somewhat of a poetic coincidence that the major books of these thinkers, Bohm's *Implicate Order* and Deleuze and Guattari's *A Thousand Plateaus*, are published in the same year, 1980, yet, apparently unaware of one other. Of course, in these works the topics in focus are approached through different angles and have different genealogies. This difference is reflected in the choice of vocabulary: the *Implicate* and the *Explicate Orders* are present in *A Thousand Plateaus* as, respectively, the virtual and the actual; the holomovement corresponds to the continuous variation or the becoming.

physical environment, the performer(s), the listener(s), and possibly a host other components, all enfolded in the following possible scenario:

- The **composer's** imagination enfolds, as in tunes in, into the Implicate Order to receive a 'message' and to in-form it through the medium of sound, to abstract a musical idea, whose perceived meaning she deciphers and simultaneously encodes in the musical work;
- The **musical work** is life-implicit, virtual entity; once conceived in our three-dimensional world it returns to the virtual archive in the Implicate Order declaring it its domicile, and stamps the musical score as a local address for correspondence;
- The musical work/idea as a whole is implicitly enfolded as information, attributes and potentials into the **musical score**, provided there is one (if not, there still is a musical trace that bears the meaning);
- The **performer** visits the score, taps into the musical work through it, absorbs its perceived meaning, selects a number of capacities to actualize, and in the process 'pollinates' the work with her own experience. During the **performance** the musical work unfolds and becomes alive or life-explicit (to various degrees depending on performer's own skills, insight, personality, and quality of consciousness).
- What the **listener** receives is a hologram of the now somewhat diffused, distorted, divergent, dynamicized 'original image' of the musical work as translated by the composer. For the listener, the moment of unfoldment of the work in performance – as a time event – is inevitably accompanied by a host of **sensory data** (e.g. smells, tastes, visuals, spatiality), and also by a number of impressions and possible associations she makes (e.g. performer's personality, performer's musical persona, reviews read of the work, stories about the composer, memories of when the work was first heard, melodic connections, rhythmic representations, etc.).

This material of sensory, associative and imaginary nature fuses with the now opaque hologram, to result in a single unanalyzable whole in the mind of the listener. An assemblage has emerged, comprised of human and non-human agents, of material and non-material becomings, of discursive and non-discursive elements, or actual and virtual, of real (acoustic and biological) processes and "purely intentional formations."[59] Each one of the components

[59] The Polish esthetician and philosopher Roman Ingarden famously defined the musical work as a purely intentional object with its "source of being in the creative acts of the composer and its ontic foundation in the score" (in Thomasson 2017).

has an existence of its own, but they have come together for a unique singular ensemble in spacetime, to collectively express an idea. A musical work has been manifested. I return to the concept of the assemblage in Chapter 4.

Such nonlinear and pluralistic thinking, however sensible and logical, is just one way to go about and to frame the ontological idiosyncrasy of the musical work. A sense for the radical potential of this model emerges from the ideational pool generated by the artistic research of experimental performer, composer and philosopher Paulo de Assis and his team in Orpheus Institute in Ghent, Belgium. In *Logic of Experimentation* (2018), Assis proposes a thorough rethinking of the concept of the music work based on the idea of the assemblage. His motivation is as a reaction to the so called 'strong concept' of the musical work dubbed 'the classical paradigm' by philosopher David Davies (2011 chapter 2) and supported by Lidia Goehr in various writings (e.g. 1989, 1992). The classical paradigm, Davies submits, is a model for thinking about the performing arts, according to which the artworks have multiple instances.[60] In this sense, the performance is of something (the musical work), and the performers exercise their power of interpretation in order to generate an instance of the musical work (Davies 2018: pp. 45-64). Thus, the musical work has a very stable Platonic core, affording multiple interpretations in performance. However, according to Goehr, the 'musical work' is a historical entity invented by Romantic aesthetic around the 1800s,[61] which heroicizes the Creator/composer as the Great Man, proclaims music as the ultimate art and the 'musical work' – as a true Word from its gospel. "Such a way of thinking result in our alienating music from its various socio-cultural contexts," warns Goehr and asks: "apart from the fact that most of the world's music is not originally packaged in this way, do we not risk losing something significant when we so interpret it?" (Goehr 1989: 59).

Paulo de Assis responds to the 'strong' concept of the musical work with problematization of the ~~work~~. Indeed, the classical Work with its pentavalent bond (composer – idea – Work – performer – listener) is problematized and challenged by the ~~Work~~ as its opposition/negation. Assis rejects the notion of stability and approaches works as 'metastable constructions', indeed as assemblages constituted by ~~work's~~ background, sketches, drafts, editions through time, performing styles, listening expectations, criticality

[60] In *Art and its Objects* (1980) philosopher Richard Wollheim describes a model of the so-called 'type-token' relationship for performance works of multiple instances: in this model the 'musical work' would be the type and each performance – a different token of this type.

[61] See E.T.A. Hoffmann's "Beethoven's Instrumental Music" from his novel *Kreisleriana* (1813), translated by Arthur Ware Lock (1917, pp. 123-133).

(Assis 2018). Reading closely Deleuze and Guattari, and particularly the chapter from *A Thousand Plateaus* "Geology of morals," Assis proposes that the musical assemblage consists of four material layers, as follows:

1. Substrata, incorporating theories, treatise, instruments, iconography etc.: every-thing existing before the composer that has played some role in the emergence of the work.
2. Parastrata, containing everything that composer has produced in coming to his first formulation of the work: sketches, drafts, first editions, own writings etc.
3. Epistrata, comprised of others' response to the new work – period and modern editions, books about the work, critics etc.
4. Metastrata, enfolding the amalgamation and sublimation of all these objects and materials, from which artists do artistic realizations.

In this way the Work-assemblage is not a Euclidean object anymore with perfectly identifiable on a 3-D space coordinates. The ~~Work,~~ in the spirit of a Riemannian manifold[62] of many dimensions, is a multiplicity in which the attention is placed not on the extensive, but on the intensive properties and the interest is engaged by the energetic potential for future realizations. The Great Composer is replaced by the Operator, who merges the traditional roles of composer, performer and scholar. The Musical-work-as-an-Assemblage takes the musician out of music to enable the adoption of other, 'forein' perspectives and approaches, so when she returns to music, her performance reterritorializes the musical ~~work~~ in a profoundly novel way, as an Assemblage.

Paulo de Assis' work opens up new avenues of exploration not only for artistic research as such, but for performance in general. Assis' metastable constructions operate on the fold between the actual and the virtual, comprised of live and recorded music, text, images, videos, dance. Those present to the performance are neither listeners, nor viewers. They experience the enfolding image of thought implicated in the musical work, heavily hyperlinked by numerous connections, hints, associations, transformations; they are also, literally, creating it. The whole that has been collectively experienced, created and acted out is a moment of an Implicate Order. The Musical assemblage practice is a prime example of

[62] Bernhard Riemann (1826-1866) is one of the leading mathematicians of 19th century. His idea of multidimensional space, known as Riemannian space or manifold (also 'hyperspace'), propped and enabled the theory of general relativity. Deleuze, arriving to Riemann via Henri Bergson, is inspired by mathematician's ideas and applies them in his conception of the virtual.

the aberrant nuptial[63] between music, consciousness, matter, the Implicate Order, and the holomovement that is the Musical work – and 'the listener' could now legitimately witness, feel, taste, smell, comprehend and participate in its becoming.

Becoming vs. Becoming

However inspiring the idea of the musical work as musical assemblage is, such kind of artistic practice still operates on the fringes of the mainstream go-to-a-concert musical experience – the familiar interface between the musical and the physical, as far as live experience goes, is largely mediated through (some kind of) space where we go to listen/watch/experience a kind of musical whole. In the heart of this multilayered and multifarious yet opaque musical whole, which we visit – or which visits us? – when we play or listen to music, whiffles something ambiguous, sensual and subtle, something musical and subjective. It is easy and somewhat straightforward to call it 'sonic' or 'belonging to sound,' but best not be too hasty with definitions. As the anthropologist Tim Ingold marks, "Sound is not what we hear any more than light is what we see":

> (Sound) is neither mental nor material, but a phenomenon of *experience* – that is, of our immersion in, and commingling with, the world in which we find ourselves (…) (Sound) is not the object but the medium of our perception. It is what we hear *in* (Ingold 2007: 10-13).

Dwelling in and 'phenomenalized' by its medium, the musical whole, to give it a name, is the "illusion begotten by sound," as per the oft-quoted expression of philosopher Susanne Langer (Langer 1953: 107). The elements of this illusion are not tones, rhythms, dynamics or durations, Langer maintains, but "something virtual, created only for perception. Eduard Hanslick denoted them rightly: *'tönend* bewegten *Formen*' – 'sounding forms in motion'" (Ibid.). These moving sounding forms are the elements of the illusion, or the semblance created by the composer: "something that exists only for perception, abstracted from the physical and causal order" (Ibid.).

Here is music's circular articulation:

[63] *Aberrant Nuptuals: Deleuze and Artistic Research* is the name of the 2020 volume edited by Paulo de Assis and Paolo Giudici. The name refers to Deleuze and his concept of becoming: "Becomings are not phenomena of imitation or assimilation, but of a double capture, of non-parallel evolution, of nuptials between two reigns. Nuptials are always against nature. Nuptials are the opposite of a couple. There are no longer binary machines" (Deleuze & Parnet 2007: 2).

A. From the Implicate Order of music, characterized by a pre-compositional virtual musical structure of relationships exemplified by the Ursatz that enfolds all future musical transformations and variety, where time and space are to be perceived as unity, and where past, present and future are enfolded in the simultaneity of the stretched present*ing* moment,

a¹ A musical assemblage is abstracted or explicated through the medium of sound, an assemblage as a heterogeneous entity comprised of material and expressive elements characterized by relations of exteriority, a musical entity that is extended in space and actualized in time.

A. At the very moment and by the very act of its explication or actualization, this musical assemblage evokes a semblance, a non-physical illusion "abstracted by the physical and causal order;" upon its last reverberations the semblance returns to the Implicate Order.

Figure 8// Variations on the musical holomovement as a flow between A-a1-A: Implicate Order -> explicate Musical assemblage -> musical semblance -> Implicate Order.

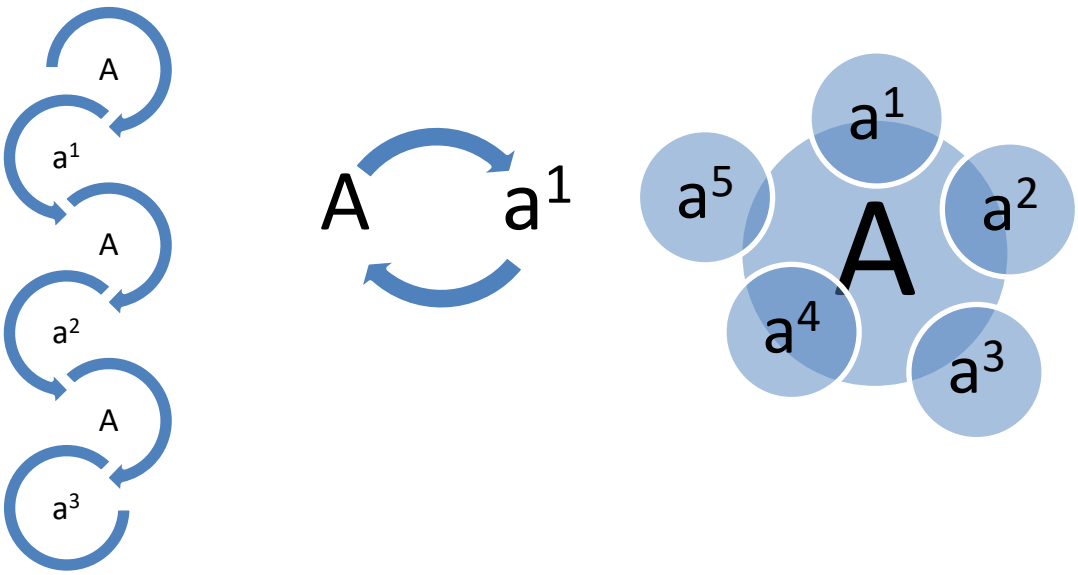


Figure 8 visualizes the relationship between the Order of music and the Musical assemblage/semblance in three distinct models: through the flow of the holomovement a musical abstraction is unfolded from the Implicate Order into the Explicate Order, to immediately enfold back into the virtuality and potentiality of the Implicate Order – and all

this enfoldment and unfoldment is contained in and enacted through a single (holo)movement.

Although created by the Operator/ performer/ musicker, the musical semblance is distinct from him or her – in a sense, the musicker is music's Other, the one music presents itself before. The nature of their relational process and its power dynamics is not unambiguous, for who is who is at times difficult to establish – the Creator and the Creation are enfolded into each other. One way of thinking beholds the association between musicker and music as a power asymmetric assimilatory relationship (de Sélincourt's "our own continuity must be lost in that of the sound we listen"); another reasoning employs the classical self/Other dialectics (Hegel's "the abstract unity echoes the like unity of the subject"); a third scenario contemplates that the two parties merge into each other and through each other, to create an ethos of transcendence (Sloterdijk's 'immersion with sound'). Assimilation, dialectics, immersion – what is the most faithful construction of the relation? And is this an 'either/or' or 'both/and' kind of question?

Cultural musicologist Birgit Abels provides a possible answer in proposing the Sloterdijk-inspired metaphor of music as a sonic mirror:[64]

> Music occupies a space where our ideas about culture, society, place, history, and life meet. It's a space where we think about who we are and who we would like to be, and in this ephemeral sound, we spontaneously find ideas about ourselves reflected at a given moment. Music is a sonic 'mirror space' whose reflection we can look at and within which we can move at the same time. This is why I believe it is fundamentally important that we try to understand the many meanings of music, because they tell us things about who we are that we might not know otherwise. As we sense, and make sense of, music, it can help us make sense of ourselves (Abels 2016).

Apart from the emphasis on 'space,' I find that the mirror metaphor powerfully resonates and merges the two possible musicker-music relations. Looking at the mirror, one sees it as Other, as a thing on its own right – the unity of the Self looking at the mirror echoes a like abstract (musical) unity of the mirror. There is a dialectical peek-a-boo, an entanglement between the two semblances. At the same time, one looks into the mirror and by seeing one's reflection one's own continuity is 'lost' – I am engulfed by the virtual reflection, I sink into it, I become my reflection, I become music – at the moment it is the only reality I know as

[64] The metaphor of the sonic mirror is extended and critically discussed in Chapter 3.

myself. 'Reflection,' however, does not account for the capacity of music to generate difference, for the interval music creates where the musicker is able to extend, augment, amplify, transcend its subject ('real') and its reflection ('imaginary') boundaries, by becoming-unimaginable. Thus, we must tweak the opaque reflecting surface of Abels' sonic mirror and liquify it to Haraway and Barrad's diffracted model.

Diffraction is a physical phenomenon produced when waves travelling through space meet an obstacle, or when these waves themselves overlap. Both feminist scholar Donna Haraway and new materialist philosopher Karen Barad comment on and recommends the notion of diffraction as a "useful counterpoint to reflection: (…) whereas reflection is about mirroring and sameness, diffraction is marked by patterns of difference" (Barad 2007: 29). The critical practice of reflexivity, as an autonomous self-referential self-positioning, as a way of engagement and knowledge production, is challenged by Haraway. In reflexivity, as in reflection she sees only a displacement of the "self elsewhere, setting up the worries for copy and original and the search for the authentic and really real" (Haraway 1997: 16), where "diffraction is an optical metaphor for the effort to make a difference in the world" (Ibid.).

Diffraction, then, is the effect of the difference produced when the waves of the musicker overlap with the waves of the musical transformations – in music's diffracted mirror I don't 'see' myself as myself, but as what I want to be, I never thought I could be, I did not know I am, as I can never be. . .. The capacity of the musical Implicate Order to create difference out of uniformity manifested as beat and rhythm, harmony and melody, the capacity for unitary perception of space and time, for creating alternative modes of musical space and time, for endless ornamentations on the face of the Ursatz, creates a complex diffracted wave pattern. This pattern interferes with my wave pattern to produce a yet further diffracted order that perturbs my consciousness and opens a door of perception.

Past that door in the musical experience, one finds oneself beyond sound and movement, beyond subjective experience, even beyond space and time ("for nothing else exists there"). The Buddhist meditation master Chögyam Trungpa talks about the 'fourth moment' – the moment that is beyond the other three, past, future, and present. Sometimes it is referred to as 'nowness,' he says, other times as the much larger version of the third moment, the present. It is a state of non-ego, a very real experience in which nothing can be misunderstood (Rinpoche 1974). Art, according to Rinpoche, has the purpose to show our non-existence in the world. In an article titled "Musical qualia, Context, Time and Emotion" (2004) Rinpoche's meditation disciple, computer science professor Joseph Goguen proposes

that close attention to music and to how we hear it, could give rise to an experience of the fourth moment,

> [A]n experience of time suspended, of not past, present, or future, but a limitless space of great equanimity that unifies and transcends all three, and in which both self and world disappear (Goguen 2000).

Goguen names this space "the abode of the sacred" and ends there. Admittedly, it is a strong ending of his article, as 'sacred' delineates our limits beyond which lays the unknown, and as such it is in itself an end-statement. But if 'sacred' is understood as a 'non-ego' or self-less connection to and union with a higher, Other order that operates in an unfamiliar mode, with different protocol, that has different content and expression, and where time flows in Other way, then we could use it as a transition and translation to what physicist Thomas Campbell names a Nonphysical Matter Reality within the Absolute Unbounded Manifold.

This reality is explored in the next chapter.

Finally, again: Where we are when we listen to music? In the 'fourth moment,' in the 'nowness,' in the 'non-ego' territory of 'non-existence'? Whatever the name is, it is there, in that spacetime interval, where music, consciousness and the Implicate Order superimpose.

The Implicate Order is the common ground of both matter (inanimate and living objects) and consciousness; it is its enfolded structure, both of information and of matter (e.g., in the brain and nervous system), that which primarily 'enters' consciousness. The enfolded structure of the Implicate Order is the cradle of the musical beginning, too: in the virtual plenum of the musical, vibration and movement come to play live sonic architecture games with intensities, pressures, and consistencies, experimenting with selected populations. From the milieu of this ongoing play, a specific assemblage is abstracted and awaken in our consciousness, to produce the musical experience. As far as Bohm is concerned, music is one of the clearest avenues available to humans to consciously grasp and feel the all-enfolding nature of the Implicate Order. Furthermore, with its incarnation of the "whole unbroken, living movement," music appears to be an epitome of what is, the holomovement. Holomovement is the topological current which "enters information and matter in consciousness," gets digested and is consequently regurgitated as stories, music, art,

machines. In this respect, we understand the holomovement as a synonym of life force/ life power/ life drive, or simply, life.[65]

I conclude this Bohm-inspired chapter with the proposition that within Bohm's framework music could be thought of as a relatively autonomous sub-totality, one of many abstracted from the holomovement. Other examples of sub-totalities Bohm gives are the Universe, life, and the non-animate matter. Each one of these sub-totalities operates under certain conditions and limitations defined only in a corresponding total situation. Bohm outlines three key features of a sub-totality. It needs:

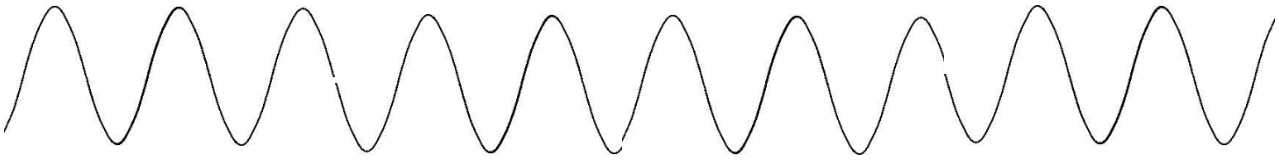
1 A set of Implicate Orders.

2 A special distinguished case of the above set, which constitutes an Explicate Order of manifestation.

3 A general relationship (or law) expressing a force of necessity which binds together a certain set of the elements of the Implicate Order in such a way that they contribute to a common explicate end.

I shall revisit the idea of music as a sub-totality in Chapter 3, in reference to the newly introduced reality frame I dub Musika. How a sub-totality is possibly abstracted from the holomovement and what is the role of the sentient element in the Order of music are among the major themes of the next chapter.

[65] Cp. Bergson's Élan vital, Jing's Unus Mundus, Schopenhauer's Will to life.



II INTERMISSION

The Form of Practice

To speak of music-making, music-incepting, music material, music definitions, musical work and musical meaning without addressing the formation of the being who conceptualizes and probes the bodies of the symbol systems it explicates, is to miss the point. As far as we are concerned, the state of affairs is tightly constrained: no human being – no music. Therefore, before spending a considerable effort on conceiving of how the human being produces, interacts with or relates to music as one becoming to an Other, we should contemplate how music and being come together through self-formation, self-extension, self-enhancement, self-overcoming. For between the drastic and gnostic music, between the implicate and the explicate, there is the becoming of practice.

> I propose reformulating the discipline of art history as a history of artistic or virtuoso asceticism. Just as the history of science usually presumes that the scientists who do their disciplines already exist, the history of art has assumed since time immemorial that artists are the natural protagonists of the business that produces works of art, and that these players have always existed as well. What would happen if we rotated the conceptual stage ninety degrees in both cases? What if we observe artists in their efforts to become artists in the first place? We could then see every phenomenon on this field more or less from a side view and, alongside the familiar history of art as a history of completed works, we could obtain a history of the training that made it possible to do art and the asceticism that shaped artists (Peter Sloterdijk, 2012: 9).

In the spirit of Sloterdijk's 'side view' rotation, I ask: what does the musicker, *a.k.a.* the music artist, do? What is her practice?[66]

[66] Upon a quick search of the term 'practice' the Google search engine feeds back the following meanings:

Practice makes perfect

> Practice is the act of rehearsing a behavior over and over, or engaging in an activity again and again, for the purpose of improving or mastering it, as in the phrase "practice makes perfect."[67]

Practice is incredibly boring and relentlessly greedy. A well-documented UK study from 1996, titled "The role of practice in the development of performing young musicians," established this simple truth: "Formal, effortful practice is a principal determinant of musical achievement" (Sloboda et al. 1996). The second simple truth substantiated by the study is that practice is not inherently enjoyable: "Even the most able individuals find it hard to motivate themselves to rigorous practice (…) the role of the parents is absolutely crucial in this respect" (Ibid.). In short, practice is the *via dolorosa* to achievement. "Do me, do me again:" an endless cycle of reiterations and protocols, of diligently arranged sets of consistent exercises, of simple actions with no requirement for inspiration or creativity, but with a twinkling promise for a – maybe – conceivable singular 'achievement'. . .. And then, when the "parental pressure is gone, people fall in deep depressions, because they feel maybe they misunderstood or … (they feel) empty."[68] If all of this is true – if practice is not inherently enjoyable, if the parental role is absolutely crucial, and if without it people get lost and depressed – one cannot help wondering, how is it that adults keep practicing, why they do it, how is practice sustainable? Could it be that, in spite of common sense, pedantic, onerous, and tedious practice is in itself, apart from its goal, valuable, worthy, rewarding?

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1 the actual application or use of an idea, belief, or method, as opposed to theories relating to it.

- the carrying out or exercise of a profession, especially that of a doctor or lawyer.
- [count noun] the business or premises of a doctor or lawyer.

2 the customary, habitual, or expected procedure or way of doing of something.

- an established method of legal procedure.

3 repeated exercise in or performance of an activity or skill so as to acquire or maintain proficiency in it.

- [count noun] a period of time spent practicing an activity or skill.

It is the last third meaning of practice that I reflect upon in this chapter, and more specifically: practice as opposite and complementary of theory.

[67] Practice (learning method). In Wikipedia. Accessed December 9th, 2017. https://en.wikipedia.org/wiki/Practice_(learning_method)

[68] The pianist Caroline Oltmanns in "Living the classical life" episode 42, published on February 23, 2017 (~ 16.15 minutes) https://www.livingtheclassicallife.com/42-caroline-oltmanns

In his *Metaphysics* (4th century BC) Aristotle proposes that in order to know some-thing for what it is, one needs to answer said thing's four why-s: its matter-, form-, agent- and purpose- explanations or causes, taken as a whole: *causa materialis*, *causa formalis, causa efficient* and the end-cause of existence and purpose, *causa finalis*. I use Aristotle's reasoning as an endoscope – as a tool to perceive and amplify different aspects of the dense, smooth and insidiously entraining thing-process that practice is. To spearhead this investigation, I select the proverbial wisdom of the phrase 'Practice makes perfect'. A hardline of most any pedagogical repertory, the understanding that practice is the way leading to perfection points at the sour fact that the object of desire is achievable through hard and steady work. This idea brings comfort to many, especially to those with just a little talent and modest circumstances: "Never mind the talent" it sermons, "even in its utmost it is still just a one (1); what matters are the subsequent zeros (000^n)." In other words, the diligent work results in an incremental increase in expertise and, ultimately, it pays off – or so the saying goes.

The proverb's symbolic ethos is captured in the conditional dictum of the so-called American dream: "The sky is the limit: There is nothing you can't do or be, if you are willing to work your hardest." This optimistic view, at its more sinister undertones, reveals a parasitic message: Hardworking Joe's consistent labor doesn't really guarantee him success and just rewards, but it does deliver a bigger revenue for Joe's employer than Sloppy Jim's work. Does hard work always pay off and, respectively, does practice? How many of the committed young musicians perennially nurtured with the one-and-zeros metaphor do achieve their 'perfect'? To those who don't, 'practice' in 'practice makes perfect' is an incitement and an opportunity, a carrot-and-stick exploitative management strategy.

Rotated 180 degrees, the popular phrase excites another remarkable prospect: There exists a 'perfect,' and it is THE GOAL one aspires to. The longing for greener pastures, for an escape from the constrained human condition, the possibility of attaining heaven and eternal bliss are all key themes in different religions. Salvation is attainable, these religions assert, through free will, restraining practices and personal effort, e.g. following the divine precepts, atonement, ascetism. However, achieving a 'perfect' in reality is but a fleeting objectified moment in time, a hormonal rush experienced by a giddy ego. It is the seconds-lasting ecstatic culmination of a 5-minute circus act before the explosion of deafening "BRAVO!": a pinnacle is achieved after years of training, and it has already passed in time. Is this moment a *finale*? Interpreted from the perspective of the 'perfect,' 'practice' is means and promise, a politico-ideological strategy.

Whether read forward or backwards, the 'practice' and the 'perfect' in the popular phrase both operate as possibilities and opportunities, as positivistic promises for attaining im/possible virtual goals – self-improvement, success, a dream. These goals are the limits within which practice operates as a linear, incremental, and one-directional process-in-progress. Applying Aristotle's formula to this basic case is straightforward:

> ***Causa finalis*** is the 'perfect' – fake or real – towards which practice is directed. For the practicing pianist, the 'perfect' ranges from managing a performance with no 'mistakes' to winning a competition or to waking the musical ineffable resting in the score. The 'perfect' could also be embodied as a concert, a record, reputation, recognition, as an invitation to play with a big orchestra, a fortune – all smaller and higher peaks that are outside of the quotidian chores of practice.

To achieve the perfect, practice will endure, change or adjust its *causa formalis*.

> ***Causa formalis*** – the assortment of particular exercises for pianistic dexterity and tonal coherence that are performed daily in various orders for a certain period of time. Scales and arpeggios, thirds and sixths, articulation and pedal work – all for the sake of achieving unhumanly elegant musical enunciation and making it all seem possible, effortless, easy.

Practice employs its *causa formalis* to refine and obey its material.

> ***Causa materialis*** is, to follow up with a musical example, the piano as an instrument and its mechanics, affordances, belongings and accessories, e.g. sheet music, time measuring devices (clocks and metronomes), specialty equipment (chair, cushions, pencils). As 'material' we should also consider the materiality of sound. The pianist, too, is a material cause, as her whole body – skin, hands and fingers, breath and heartbeat, musculoskeletal, cardiovascular, nervous, endocrine system – not only participates in the process, but must be disciplined by it. In practice, all these systems are to be coordinated, tuned into the piano's affordances and music's requirements (Fig.9).

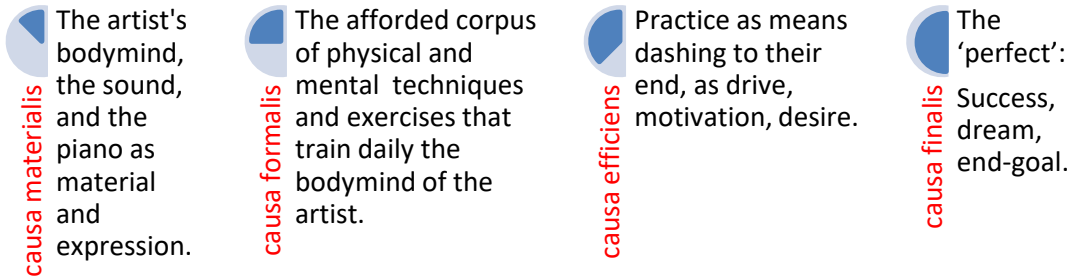


Figure 9// Aristotle's four causes describing the object of 'practice', spread I.

This explanation is both straightforward and inconsistent. It defines *causa finalis* from the point of view of the pianist's mind, while placing the pianist's body as *causa materialis*. This treatment of the pianist is further complicated by the odd importance placed on the content of practice, on its substance as multiple consecutive zeros, while leaving murky the identity of the One, *causa efficiens*. It is as if practice itself has agency in pursuing its 'perfect,' without much concern for the practicing person commodified as material. In this sense, practice itself is an actor consisting of propelling forces, like motivation, desire, drive. But then, if practice itself is an actor, what would its perfect be? Would there be any perfect as an end-goal at all? And what happens after the 'ever after:' why the pianist as practice's *machina*, once reached and wallowed in the 'perfect' keeps showing up punctually on daily rendezvous with practice? What does practice want of her? This is an important question worth repeating: what does practice want from its practitioner? I return to it later in the chapter.

The trouble with the 'perfects' mentioned above is that they all are penultimate: they do not satisfy the purpose, or let say, the mission of practice, only outline its circumference. The essential and the most personal character of practice lies within, where creative material aspects emerge in the context of its repetitive, mundane, uninspired nature; where a vertical is conceived amidst and performed by a horizontal; where quality grows out of quantity, a difference – out of repetition. What is this middle ground of practice, simultaneously fecund, robust and supple, that readily lends itself to different interpretations and managements, while at the same time endures, resists and defies daily the fuliginous shadows of boredom, resentment and monotony? What is practice's ultimate *causa finalis*?

The first intuitive four-causal spread appears to raise more questions than the answers it provides. Let us start again.

Causa finalis

In his book *You Must Change Your Life* (2014) the philosopher Peter Sloterdijk explores the significance of practice, under the headings of anthropotechnics and through the cobwebs of practice-concealing phenomena, like 'spirituality,' 'morality,' 'ascetism,' 'superstition,'

'religion'. The title is borrowed from the final half-line of Rilke's sonnet *The Archaic Torso of Apollo* (1908), inspired by the uncanny power of art to arrest the mundane, to penetrate the veneer, and to reawake the awareness of the power and beauty we know within.

We could not know his huge and noble head
With eyes grown apple-ripe. Yet even so,
His torso glows with a candelabrum's glow
Wherein his gaze, though only faintly fed,
Is held and gleams. Or else that bulging breast
Could never blind you, nor a smile run there
In the tender twist of the loins to that center where
The spring of procreation hangs at rest.
Or else this stone would squat, disfigured, small,
Truncated under the shoulders' lucid fall.
Nor would it shimmer like a wild beast's hide--
Break forth at every point in star-sharp strife.
For there is no place here, on any side,
That does not see you. You must change your life.[69]

The stunning ending is not a detached religious commandment, Rilke's interpreters insist; rather, "it is an individual commandment of one's own life, a potential that has not yet been realized that we suddenly recognize in fulfilled moments of our lives."[70] This recognition of raw potential along with the ensuing active self re/formation are underpinning Sloterdijk's understanding of practice. For him, practice is the uncredited bridge between nature and culture (2014:11), between the survival scream for a physical shelter and the existential cry for a symbolic one. Beyond the dichotomy of *Homo faber* and *Homo ludens*, there is *Homo immunologicus* – the last neologism coined by the philosopher, is a local agent of immune systems explained as the "embodied expectations of injury and the corresponding programs of protection and repair" (Ibid.: 8). As a response to biological evolution mechanisms' transposition into the social and psychological realm, the human sphere develops three immune systems, Sloterdijk maintains: the biological, the mental or socio-cultural, and the symbolic or psycho-immunological system of practices,

[69] Translation from German, William Ruleman.

[70] Ulrich Karthaus: *The power of light*. In: Marcel Reich-Ranicki (ed.): *1000 German poems and their interpretations*. From Arno Holz to Rainer Maria Rilke. Insel-Verlag, Frankfurt am Main / Leipzig 1994, p. 282.

> (o)n which humans have always relied to cope (…) with their vulnerability through fate, including mortality, in the form of imaginary anticipations and mental armor (Sloterdijk 2014: 9).

In Sloterdijk's, practice emerges as the immunological toolkit that soultinkers man ready to conquer life – or to simply bear it. *Homo immunologicus* is impelled by his own intimate evolutionary workings to employ

> a variety of methods of mental and physical practicing, by which (he) attempts to optimize (his) cosmic and immunological status in the face of vague risks of living and acute certainties of death (Ibid.: 10).

In these terms, practice is something inborn, an instinctual mode of man's existence through which the clumsy *Homo sapiens* produces and in-forms the human being. Practice is the existential struggle of the animal aware of itself and its difference to create a "symbolic framework," in Sloterdijk's words (2014: 10); it is one's struggle with life and oneself in concern for one's form.

The problem of form vs. substance is fundamental in both physics and philosophy, as David Bohm reminds us:

> The effect of the quantum field depends on the form and not on the intensity. Radio wave and receiver – it all depends on the form of the radio wave, not on its intensity, the energy contains in the receiver. In-form [means] to put form in. The wave function which operates through form is closer to mind and life; the basic quality of the mind is that it responds to form and not to substance (Bohm 1989).

The essential character of the form is also commented on by one of Sloterdijk's favorite *Homos immunologicus*, the philosopher Ludwig Wittgenstein, who in *Culture and Value* from 1937 writes: "The fact that life is problematic shows that the shape of your life does not fit into life's mold. So you must change your life and, once your life does fit into the mold, what is problematic will disappear" (in Sloterdijk 2014: 139). This idea is the leitmotif of Sloterdijk's book, as it is to be expected from the title: practice is the instinctual mode of engaging with the world in the pursue of the ideal form of life and being that provides for not

simply smooth and not even bearable, but at times the one possible[71] existence. Man produces man, he proposes, not through (hard) work or through work on oneself (on the way to salvation), neither through communication and interaction, but through forms of exercise. The man-in-training, to whom Sloterdijk refers to as, depending on the context, *Homo repetitivus* or *Homo artista*, is put together through daily appointments with practice, the latter defined as

> (A)ny operation that provides or improves the actor's qualification for the next performance of the same operation, whether it is declared practice or not (Ibid.: 4).

These perspectives on practice require a second rendition of Aristotle's four-causal spread. In Sloterdijk's, 'practice makes perfect' would be interpreted as shown in figure 10.

Figure 10// Aristotle's four causes II.

Causa efficiens of practice, as the agent bringing all other causes together, is the practitioner, *Homo repetitivus*, *Homo artista*: the shoemaker, the yogi, the composer. ***Causa finalis*** or the 'perfect' as the object, concern, and the goal of practice, is the right form of life. ***Causa materialis*** depends on practice's medium, whether it is leather for the shoemaker, one's body for the yogi, or the instrument for the musician.

What about *causa formalis*? How to go about the form of practice? Given that practice is a process in time rather than an object in space, its formal cause could be conceptualized and inferred by its material – the most conspicuous of all causes. If, treating practice as generic process, we are able to extract a generic *causa finalis* (the right form of life) and generic *causa efficiens* (*Homo immunologicus*), we could assume that practices must be similar enough to extract a generic *causa formalis*. Making clay pots or singing, jogging, meditating or fasting are practices using different mediums-as-materials but with the same generic

[71] There are several references in the book to suicidal characters who, through realization and awareness of the self-making potential of certain practices have never committed a 'final' suicide, e.g. Michel Foucault, Emil Cioran.

causa materialis providing the substance for training and self-formation; functioning on different mediums, these practices effectuate the same process. What process is this?

To better understand the formal cause, we shall zoom into the question of the medium: Is the medium-as-material anything other than a pliable tool?

Causa materialis. Causa formalis

"It's not easy to see things in the middle, rather than looking down on them from left to right or right to left: try it, you'll see that everything changes", advises Deleuze (2013: 24). If we put an ear to the throbbing middle of practice, we could sense a subtle presence. It is a ghostly hum emerging from practice's repetitive nature, which awakens something Languid and lullabies something Watchful. Practicing a challenging passage on the conglomerate of materials that is the piano for example – 200, 300 times a day, in rhythmic or melodic patterns, in temporal variants, backwards, with 'right' and 'wrong' fingering, with alternative touché – keeps one's mind attentive, aware and present, but one's I-ness slowly retires, anaesthetized: there is nothing to be 'I' about, exercising on an Other body. What comes instead is beyond I-ness, beyond the conventions of musical grammar, beyond the message of the medium, in short, beyond the subtle bionic composite made of pianist's, music's and piano's bodies. The presence emerging from this three-bodied composite is imbibed by a range of intensities, like speeds, consistencies, vibrations, dynamics, pressures, it is embodied in lines and curves, in jumps and smoothnesses. A body without organs (the three-bodied composite) weds organs without a body (the intensities), giving birth to a *quasi*-novel awareness: the medium, the sound, bespeaks for itself, and together with practitioner's bodymind, the musical work, and the materiality of the piano they form the flowing assemblage of, what Deleuze might name, becoming-intensity.

Such becoming is not exclusively incited by playing a musical instrument. In the second hour of consistent swimming, for instance, one begins to marvel at the otherworldly haecceity of becoming-water first-hand. Marvel, had one had her self-aware mind, that is. As it is, one just is eerie water. The true content of water, as the medium of one's practice, is not revealed by its material essence alone, H_2O, but rather by the intensive capacities revealed in water's dance with the swimmer – its weight, viscosity, dynamism, pressure, temperature, color, taste, and sound.

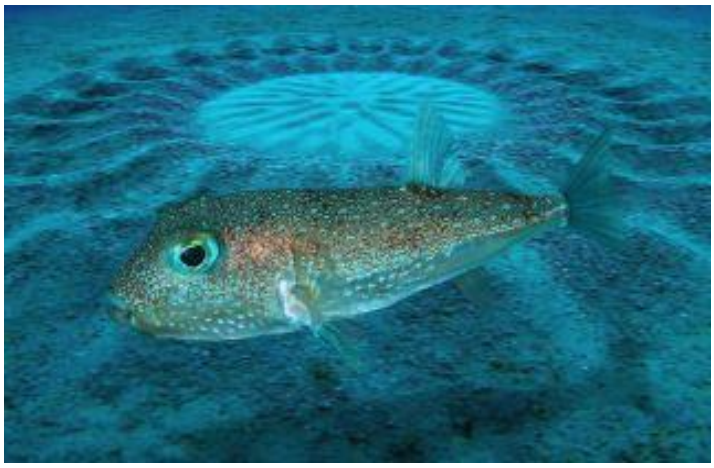


Figure 11// Species of male Pufferfish creates impressive sand wheels 20 times its size, to attract females.

Blending in-to a medium in such a manner, one encounters said medium's inner life. Paradoxically, the secret of such an encounter is readily available only to a visitor: an agent from a different medium who temporarily inhabits water. As it has been noted before, to the fish totally immersed in it, water is mostly invisible. The extent of water's existence is constrained by fish's limited interactions with the water, through which the former senses variations in latter's properties. Not water's most basic for us quality, its wetness, and certainly not water's transformative powers. Without contrast and perturbance, water is but an invisible background. To encounter its own medium, a fish would need to engage in a steady practice that would allow it to relax its I-fishiness and blend with water. The temporary becoming-water would expand both the ontological and epistemological knowledge of the fish and would instill a novel awareness of what-is-it-like-to-be-a-fish. But which fish in her right mind would ever attempt such a silly thing, becoming-water?

Instead, the fish engages in a host of imaginative and unimaginable becoming-other, as transformative practices motivated by evolutionary pressures. As camouflaging strategies, for example, the Cuttlefish practices becoming-imperceptible and the Frogfish learns to becoming-coral;[72] as mating routines the Puffer fish masters its becoming-artist (fig.11) and

[72] The Cuttlefish is famous for its camouflaging abilities that allow it to hunt, hide and communicate. It does that by extracting a statistical approximation of its environment and then matching it, thanks to the millions of specialized skin cells called *chromatophores*, which its big brain contracts and expands according to the needs of the moment. The tropical Frogfish, a type of Anglerfish, dwells in coral reefs and, although has no scales, it has mastered the art of camouflaging as coral, thanks to its textured body.

the male Seahorse spells the unimaginable becoming-mother[73] . . .. Thus, by becoming-other, the fish vicariously explores its medium while endures, propagates, survives, mutates, adapts, transmogrifies.

Whatever the practice is, it inevitably entails a study of the medium and an elaboration of techniques that enable a particular becoming(-Other). The role of the medium can hardly be overstated:

i) It is through a medium that a becoming would take place at all, as this becoming is both ineffable and intangible, dynamic and discursive phenomenon of time conceptualized in space – like sound, or color is; the medium is the opaque dimension of practice, the substantial aspect of the becoming;
ii) The medium not only enables the becoming, it colors it with its properties and idiosyncrasies – becoming-water is different than becoming-music in that where the former has water-like quality the latter moves and shifts musically….

Medium and becoming here are like two sides of a coin: the difference between them is that between material and form, or representation and presence (see below) – where the former is the engineer of practice, the latter is its architect, where the former is syntactic, the latter is semantic. In his book *On the Nature of Consciousness* (1995) psychology professor Harry Hunt, following philosopher Susanne Langer, distinguishes between two forms of symbolic cognition that gives rise to conscious awareness, representational and presentational symbolism. Within the former kind he lists language and mathematics, while music belongs to the presentational symbolism. Within it,

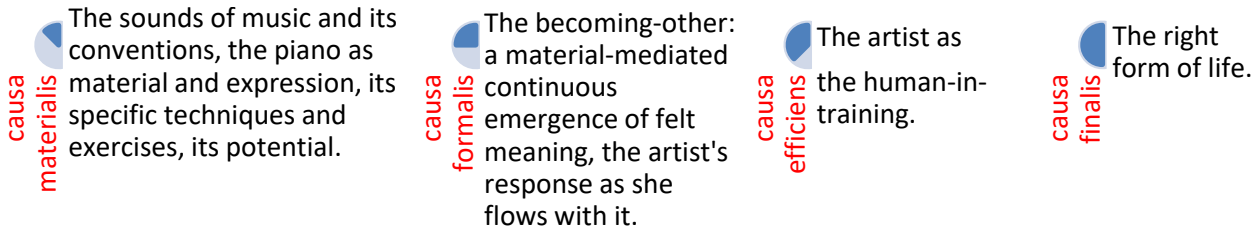
> [M]eaning emerges as a result of experiential immersion in the expressive pattern of the symbolic medium. It appears as spontaneous, peremptory imagery and is fully developed in the expressive media of the arts. Here, felt meaning emerges from the medium in the form of potential semblances that are "sensed," polysemic and open-ended, and so unpredictable and novel (1995: 42).

These forms of meaning, emerging from medium's substance and expression, are the molecules of becoming. To return to the question of the four causes, I propose that the

[73] The Seahorse male is known for his unique ability to carry the fertilized eggs in his pouch for the two weeks of Seahorse pregnancy, and subsequently to give birth to his offspring before repeating the cycle again and again for the duration of the breeding season.

formal cause of practice is the ensembled, emerging, polysemic becoming of the agent merging with medium's material in the pursuit of the 'right form:'

Figure 12// Aristotle's four causes III.



In this sense, practice is a self-investigative process, negotiating between the drastic and the gnostic, in which we explicitly use the medium-as-material, in order to establish the means of our implicit, personal becoming: diving into a medium-conditioned becoming-intensity to surface with an improved self-understanding. Practice is the continuous art of vicarious self-delineation, of both self-deterritorialization and self-reterritorialization, of shaping difference through becoming-repetition. In fact, all becoming-x, where 'x' stands for 'Other,' however wildly diverse, have a common denominator. It is the drive at the core of the continuous self-probing and self-decentering, performed in order to better form oneself. One undergoes a series of transformations in one's life represented by the sine wave alternating inevitable collapses into the abyss or chaos and subsequent resurrections, Jungian psychologist and professor at Toronto University Jordan Peterson asserts: "The self is the thing that manages the various transformations in life, the thing that moves across the transformations."[74] By persevering in our practice of choice, we begin identifying with it, and in becoming the practicing man, we continuously discover – through our medium – the world and ourselves. Walking Zarathustra's rope of practice, *Homo repetitivus* becomes *Homo artista*. Putting practice to an end equates putting an end to practitioner's life, for his becoming traces his *causa finalis*.

What does practice want?

The connotation of self-making and practice I propose here rings with some hollow tones and deeper implications that must be addressed. Who is this Self we are investigating and creating in practice, and what is the equation between the lullabied Watchful and the awaken Languid?

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74 Russell Brand & Jordan Peterson - Kindness VS Power. Podcast *Under the Skin*, February 15th, 2018. https://www.youtube.com/watch?v=kL61yQgdWeM

For a start, the idea of Self-making evokes the premise of the Self-perception theory developed by psychologist Daryl Bem in the 1970s: We are what we do. Strangers to ourselves, we discover who we are by the choices we make, by observing our behavior: having no privileged access to ourselves, we derive our identity not from somewhere within, but by examining our own deeds (Bem 1972). *Im Anfang war die Tat*.[75] This somewhat counterintuitive idea is in fact backed up by scientific evidence. Through the 1960s and the 1970s neurophysiologist Benjamin Libet performed series of important experiments on human brain, consciousness and free will. Analysis of the obtained data pointed at the following propositions:

i) Our brain consciously registers a stimulus only if the latter last 0.5 a second or longer: shorter stimuli are simply not experienced;
ii) Conscious experience is always tardy: brain activity that 'promotes' an action is observable approximately 300 milliseconds before the action occur, while the individual is aware of the choice to perform and act 100 milliseconds prior to it. The actual choice to perform the action, then, occurs unconsciously 200 milliseconds before we are aware of it.[76] The 'gap' our conscious mind handles by editing the story – filling in blind spots, discarding enormous amount of details, focusing on what's relevant.

Libet's findings inform us that an action precedes our conscious awareness of that action. To paraphrase Daryl Bem, we are, after we do. The traditional assumption that it is the 'I' of our subjective mind that wills, initiates and makes decisions creating reality is, then, mistaken, and is so on par with the traditional understanding of the Vedantic concept of the world as an illusion, which must be mistaken, too. It is not that the external world is *Maya* and consciousness is the solely existent: as per Libet, it is the opposite – the external world may be real, but consciousness is an illusion, points out the artificial intelligence creator Richard S. Wallace (2008: 205). The 'I' is a great storyteller, but there is someone else behind, someone in possession of all the versions of all the stories, a keeper of the raw reality data as it is before the editing. This, Danish science author Tor Nørretranders proposes, is the 'Me' – the unconscious but incomprehensibly well informed and aware of the big picture competent

[75] "At the beginning was the deed" – Faust I, Goethe.

[76] The experiments of Libet and their conclusions are continuously and rigorously debated in scientific, psychological and philosophical communities. Online could be found copious amounts of articles. For a succinct summary of the experiments and their implications see Libet's "The Timing of Mental Events: Libet's Experimental Findings and Their Implications" (2002).

agent responsible for our driving a car, riding a bicycle, playing the piano, fluent speech or reading. Unsurprisingly, then, appears the ostensibly scandalous assertion Nørretranders makes in his book *The User Illusion*: consciousness is a fraud.

> It is not a person's conscious *I* that really initiates an action. But it is quite clearly the person himself. There is a difference between the *I* and the person as a whole … But the *I* does not want to accept this. The thinking, conscious *I* insists on being the true player, the active operator, the one in charge. But it cannot be. Not if we take Libet's findings seriously (Nørretranders 1999: 257).

If this reasoning is true, and there is some compelling evidence that it is, then what we call consciousness is but the tip of the iceberg that spells out for us – literally, in linguistic terms – all that (it has decided) we need to know. The hypothesis is strikingly compatible with the views of Julian Jaynes, with whom my book began. Prior to present day brain-mind design, the theory goes, people were not 'conscious' in terms of introspection, they were 'bicameral,' i.e. the two brain hemispheres were not integrated as they are today. The bicameral mind was a subject to auditory hallucinations produced in the right hemisphere, interpreted by the left one as voices of the gods who advised or admonished based on the needs of the moment, and who always appeared as a counsel in a crisis situation demanding a novel action. As such, those voices were not only duly obeyed, they were existentially important, needed and relied upon. Defining 'consciousness' specifically as the subjective introspective mind, as the analog 'I' starring in the blockbuster movie running in my head, Jaynes sports the theory that, thus defined, (self-) consciousness is a very recent phenomenon evolved as an adaptation driven and endorsed by language.[77] The pressures for such an adaptation are generously explored by Jaynes through supporting archeological evidence and early writings. The possible evolutionary advantages of such an adaptation are discussed by Nicholas Humphrey in his book *Soul Dust* (2012). A neuropsychologist known for his work on consciousness, Humphrey observes that our survival chances are enhanced by our wanting to be alive, by figuring out our purpose, by our rejoicing in being in the world. This, Humphrey argues, is the gift of self-consciousness: the emergence of the ego, or of the stratified 'I' as I have put it, makes one keenly aware of the preciousness of life, and also of its precariousness. It instills the desire to live and to do so in a good world, it motivates and

[77] Jaynes proposes that the self-consciousness emerged in the last 3000 years. In his bestseller *Self Comes to Mind* (2010) the neuroscientist and author Antonio Damasio supports this idea and goes even further (or closer) when he claims that even 4th century BCE Plato and Aristotle were not conscious the way we are today. Another notable endorsee of Jaynes' hypothesis is philosopher Daniel Dennett.

intensifies the exploratory and creative impulses (see Humphrey's discussion 2012: 120-124).[78]

This hiatus into the guises of the conscious mind, *a.k.a.* 'self' or 'I', has a lot to do with practice – I would even argue that these complex matters could be studied through the latter. There is something ambiguous in the seemingly unassuming nature of practice that works both on conscious and unconscious level. On the one hand, practice involves meticulous, deliberate calibrating of each finger in order to unravel a phrase as desired; there is concentration, judgment, volition, decision-making – all conscious faculties harnessed into building muscle memory and perfecting the information exchange on the interface between the machine and the man. The maker of this conscious calibrating is, naturally, the 'I' of the artist. Its purpose? Strikingly, the goal of 'I''s painstaking practice would appear to be to achieve a reliable flow of a competent unconsciousness able to cultivates the machinic mindset of the performance. During the performance the 'I' is no more – the best an 'I' could do is to keep its wits silently in the background and to give the reins to the 'Me' that has been trained to know what to do, tapping in all durable habits and know-hows accumulated during practice. The 'I' still may have a say, i.e. watching over phrasing, making subtle tempo choices and tuning in on selected key moments, but even those minor responsibilities are kept down to a minimum – it all should have been decided upon long ago. And then, there are pieces and passages running with such a fast pace that the pianist has literally no way of being truly conscious – as per Libet's, any stimulus shorter than half a second goes unregistered by the mind.

Therefore, one must rely on the unconscious 'Me'. At the moment of performance, when fingers rush through the black and white keys abstracting phrases, voices, and movements, where my 'I' is? 'I' am not really conscious of that. 'I' am not even sure what my 'I-s' (pun intended) see at the moment of the performance: in fact, to this day I don't have a good mental picture of what my piano playing hands look like, even though I know I look at them when I play. Looking does not guarantee seeing. It could be that the old question of where, what or who 'I' am when I perform music is not the right question to ask. Opera prima Joyce

[78] Although Humphrey does not mention Jaynes theory explicitly, his important article "Cave Art, Autism and the Evolution of the Human Mind" – offering a discussion on the striking similarities based in style and technique (and possibly in worldview) between 3-4 year old autistic child Nadia and the prehistoric cave paintings – endorses the gist of Jaynes' theory, supports some timelines proposed by Jaynes and makes a case for language not being necessary for creative or conscious experiences. In fact, it seems language acts as suppressant of spontaneous unrestrained creativity. See Humphrey 1999.

di Donato talks about the moment of exuberance: "The technical, boring, pedantic work [of practice] must be done in order to be set up for success – to be free of it for the moment of exuberance, of 'I want to share this with you!'"[79] But is it the 'I' that is doing the sharing, basking in exuberance? It seems to me, it is the unconscious 'Me' – cradled, groomed and trained in practice – that finally has its moment: the 'Me', trying to share its 'tacit knowledge'. The concept, introduced in 1958 by Michael Polanyi, is a crystallization of the idea that we can know more than we can tell (Polanyi 1966). Tacit is precisely the kind of knowledge that practice accumulates, digests, and secretes – the deeply seated know-how that is personally contextual and often incoherent, with the help of which one navigates the musical flow and makes choices and decisions that are not necessarily easy to articulate and to even justify, but that nevertheless feel right, for they are rooted in physical experience. A product of practice's metabolism, tacit knowledge is the muscle built up in discipline of rigorous training. And although tacit, this knowledge is the tangible and reliable aspect of the unconscious 'Me', which informs the explicate performance.

Not only do the vast steppes of the unconscious power the tacit engines of practice: they may be music's homeland. As per Jaynes' theory, "the invention of music may have been as a neural excitant to the hallucinations of gods for decision-making in the absence of consciousness (…) The use of the lyre among early poets was to spread excitation to the divine speech area, the posterior part of the right temporal lobe, from immediately adjacent areas" (Jaynes :369). The right hemisphere is the hemisphere of, both, the voices of the gods and of music. Through the process of practice, the conscious 'I' of the left hemisphere wilfully undermines itself, plugging into the larger reality of the unconscious 'Me' of the right hemisphere. The reason for this movement lays in the nature of performance itself, as an experience that needs to be shared through a moment of exuberance. The evolutionary adaptation of the 'I' has strained too much – it has endowed us with an imagination but has strained our capacity to experience. Hence, the artist – the shamanic figure, the transfixed rhapsode, the hallucinating prophet – has evolved ways to tamper self-consciousness and even to muffle it at will, in order to let the moment of exuberance happen. It is in that moment when, sometimes, we could again hear the beautiful voices of the gods.

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[79] Opera singer Joyce di Donato in "Living the classical life" episode 55, published on March 15, 2018 https://www.livingtheclassicallife.com/55-joyce-didonato/2018/3/15/episode-55-joyce-didonato

Causa efficiens

> I would love to be on a vacation for a year! I tried it for two weeks, I was so bored! I needed to get back, to this thing (*points at the piano*). It is what makes me feel my life has a meaning, I am not just idly… People say you must enjoy life. OK, but life, music, what I do – it has to be intermixed . . . otherwise I am feeling like I am not alive, like, I am wasting my time.[80]

Yuja Wang, a Chinese pianist virtuoso based in New York, is not alone here. An existential dependency on the practice of choice permeates the success of most any devoted practitioner. The need to practice functions as a survival instinct ensuring connection to a source of wholeness, an instinct relating *Homo artista* to a background against, along or amidst which the becoming flows and forms. A connection to a larger source is mandatory for all things explicate, for in order to explicate something – anything – one needs to reach into the implicate: in Bohm's words, individuality is only possible if it unfolds from wholeness (in Weber 1986: 30). In this sense, the becoming, as *causa formalis*, is engineered by default to regularly enfold into and draw from the fluid source of *causa materialis*. To the 'I' of the practitioner this may feel like a dissolution into the 'nonconscious' 'Me,' or like a thawing into an alternate state of consciousness. Returning to Sloterdijk's idea of practice as a psycho-immunological system, we may entertain the possibility that achieving this alternative state of wholeness might be the obscure everyday object of practice's desire. Becoming-machine? Becoming-un-conscious? Could it be that, in addition to the becoming-artist mode with its shamanic duties to share the moment of exuberance, there is something yet deeper that drives us to practice, to keep on practicing?

Physician and writer Dr. Andrew Weil proposes an interesting conjecture. The desire to alter consciousness periodically, he suggests in *The Natural Mind*, is a basic appetite, an "innate, normal drive analogous to hunger or the sexual drive … the sex drive is a special case of [the drive to alter consciousness]" (Weil 1972: 32). Weil insists that the phenomenon is not socially or culturally conditioned but is ingrained as a biological characteristic of our species. He gives examples with three- and four-year-olds of different cultures and background who spontaneously begin experimenting with alternative states, e.g. whirling themselves into vertiginous stupor, hyperventilating or chocking to produce temporary loss of consciousness

[80] Pianist Yuja Wang - Living the Classical Life: Episode 14 from February 2nd, 2015. https://www.livingtheclassicallife.com/14-yuja-wang/2015/2/2/episode-14-yuja-wang

(Ibid.: 33). Other examples include the discovery of the transition zone between wakefulness and sleep which offers the possibility for out of body experiences or "the inhalation of the fumes of volatile solvents in household products" (Ibid.). Nicholas Humphrey vicariously supports Weil's idea when, in *Soul Dust*, he coins the phrase "the biological advantage of being awestruck" (Humphrey 2012: 120) and proposes that our ability to enthrall our consciousness has evolved as a biological adaptation. Alison Gopnik, the famed researcher of babies and young children mindspace, joins in when she discusses recent research on psychedelics substances (Carhart-Harris et al. 2016, Griffiths et al. 2016, Olson et al. 2018), demonstrating that the brain on LSD, psilocybin or DMT resembles the state of infant's brain: it overcomes the compartmentalization of the independent networks, e.g. of vision, movement and hearing, and functions as a unified system. Under the influence of these substances we form a good idea of what kind of brain soup our infants and young children swim in, what kind of landscape they are tripping in (see Gopnik 2016, 2018). If altering consicousness is an evolved biological drive, if our life as humans begins in a mode of consciousness that is more expansive and wholistic compared to the grownup's one, then there is no wonder we constantly invent ways to alter and tweak consciousness – it feels good, it feels like childhood. Travel, meditation, caffeine, nicotine and psychedelycs are some of the avenues suggested by Gopnik we use to expand our consciousness, or rather to switch it onto a higher mode of functioning and to experience babies' mind. Additionally, I propose that practice, and artististic practice in particular, works toward that goal, too, satisfying our drive to altering consciousness, to encountering awe, to life and living. The biologically conditioned drive to altering consciousness might be the reason why the drenched in psychedelic exuberance moment of performance is not a *finale*, why practice endures as a continuous variation. We always come back to it, even after the most perfect *finale*: to the fine art of self-delineation, of both self-deterritorialization and self-reterritorialization, of becoming-more-conscious through becoming-machine, of routine transcendence through becoming-repetition. After the ecstasy of the 'perfect' moment, the double articulation of Homo Artista and the Human Being goes on.

This need and dependency on practice may seem like enslavement at first. In fact, it is a liberation, openness, acceptance. In practice, motivated by my search for material and immaterial gains and existential purposes, I, *causa efficiens*, encounter Chopin's Nocturne and Rilke's poem and I use them as materials for my becoming. But there are so many times when a musical piece, a book or a verse has found me, suddenly, without being called for. "Lots of things can be shared: a bed, a piece of bread, convictions, a mistress, but not a poem by Reiner Maria Rilke," remarks Joseph Brodsky (1987), pondering on the privateness of the

human condition and of one's relationship with art. If anything, practice teaches that beyond the explicated forms or reality and beyond the wordlessness of that which cannot be shared – like Rilke's poem or Chopin's Nocturne – there is a mindspace, where all our privacy, our humanness and abstractions come undone. There, they are like a sea foam riding on Bohm's Pilot wave that covers the entire Universe, within which the meaning of Rilke's cannot be mistaken or misunderstood.

For there is no place here, on any side, that does not see you.

Practice is the portal through which we flow there, in this virtual, nonphysical reality, to create, integrate, and share meaning. The most striking characteristic of this portal is this: it opens on both ends, and on the other end there is an Other, one who flows and discloses towards you simultaneously and reciprocally with your own flow and disclosure. A suspect of all artistic practices, this ghostwriter comes to claim copyrights over the most evident of practice's four causes, *causa efficiens*, revealing its double nature. It can be articulated as follows:

Behind the tamed passages of thirds and sixths, arpeggios and scales, melodies, melismata, and modulations, practice opens up a space of receptive, soft awareness (of experiential immersion) where rest and rise powerful musical wholes that rejoice at being, be-coming and coming-to-be, like agents do. We could call them individuated units of musical consciousness, musical entities, musical beings, or potential musical "semblances that are 'sensed,' polysemic and open-ended, unpredictable and novel" (Hunt 1995: 42). By bringing them to life, *Homo artista* is shaped and colored by their *joie de vivre*, and it is also true that their becoming is colored and shaped by their medium's qualities and properties and by artist's consciousness. We know that the artist is one-part musical (i.e. 'of music'), and we know that these musical wholes are one-part human. We suspect they, too, are fated to unfolding their own becomings by practicing and exploring their medium. Every time Rilke's poem is shared – heard and hearkened – it in-forms its becoming-meaning and unfolds its *causa finalis*.

With this, Aristotle's causal set is reconfigured once again, to where *causa efficiens* is shared between the artist and the musical whole/semblance.

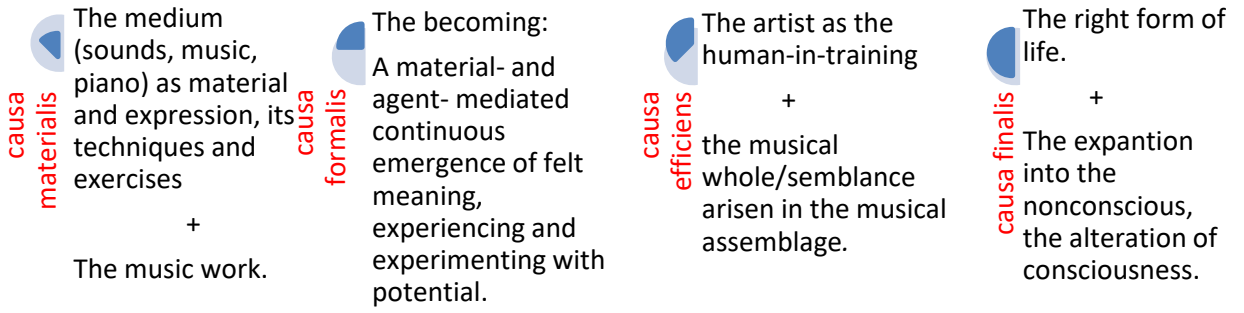

Figure 13// Aristotle's four causes IV.

Practice is a double-natured phenomenon. On the one hand, we have the implicate whole from where practice is abstracted, manifested, and directed towards its 'perfect,' as a visible, explicate process. Playing an instrument as career-making or for developing a well-rounded personality, running for health, bird watching to distress in nature – the narrative text of practice is its *raison d'être* as an objective method that yields concrete measurable results. Simultaneously, while working towards the goal, practice enthralls the practitioner to immerse into the reality of the medium, beguiles her on a journey into Other realities, modes of becoming, and frames of mind, revealing its hidden function as a bridge to the implicate wholeness, whose potential fuels all becomings and holds all comings and goings. However valid the explicate narrative and its manifested outcomes, practice induces an equally valid sub-narrative as an implicate change in our usual state of consciousness, by crack-opening a door of perception to where the runner's rush affords a superhuman aliveness and awareness, the bird watching – a nonhuman intelligence and awareness, the piano playing – other-than-human tuning and awareness. Naturally, we understand best the explicate side of practice – the 'to do' lists, the regimens, the results. The other, the implicate non-, exo-, super- or meta-human reality is a mystery that has a lot to tell, that we must explore and understand.

In regard to the artist, practice is an Implicate Order from where the event of the 'perfect' (performance) is explicated: it is a process that contains, constructs, recombines, and digests the explicate whole in a holographic, nonlinear and nonlocal way. For example, the work on refining and smoothing a single ***p*** passage (*p* as in '*piano*,' from Italian 'quiet') is not merely local and passage-specific: the focus of practice is not only on quiet playing, it extends to articulation (i.e. *legato*, *staccato* etc.), to tone volume and color, to breathing and inflection, to fingers' dexterity, tempo, pedaling, and more. The full range of pianist's technical concerns is being rehearsed in just one phrase, in one moment. Properly attended, the

rehearsed phrase informs and enfolds the whole of the performance – like a moment of the Implicate Order does. The holomovement unfolds the performance out of the practice, it lets it shine and measure up against the notion of the 'perfect,' and after its collapse, it enfolds it in practice again.

Does practice make perfect?

In the end, the obscure meaning of this invocation seems to be grounded right in the middle. Between the manipulative promise and exploitative premise of 'practice' and the iffy prospect and fleeing rewards of the 'perfect,' a third possibility resides in the middle: 'making' acts as an attractor to both implicate 'practice' and explicate 'perfect,' as a creator and sole available reality – as a holomovement. Without the self-referential, immersive, exploratory, and character-laden impulses at the basis of 'making', 'practice' would be but a mundane, repetitive, and punitive activity. Without the self-forming mechanisms, tinkering tools and embodied techniques of making's workshop, 'perfect' would always remain, melancholically, at the horizon. Neither a promise for success nor a possibility for salvation, practice is the laboratory of potential-smiting and life-creating.

You must change your life.