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Training the musical attention: Towards a new generation of methods in music education

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Abstract: *A crucial aspect of musical ability is a music-specific empathic capacity that enables the performer to uncover subjective meanings from musical materials and fully feel them during performance. Based on insights from both theoretical and empirical research into the psychology of music performance and from pedagogical practice, this capacity is thought to rely on a more general empathic ability and can be nurtured easily in most people, including those scoring rather poor on standard musical aptitude tests measuring "melodic", "rhythmic", or "harmonic" skills. In my paper, I present the theoretical bases of a new pedagogical approach for nurturing in musicians the capacity of feeling the elements of musical meaning in real time (in the act of performance): I introduce a new theory of musical expressiveness by defining, from a psychological point of view and from the perspective of the performer's phenomenology, the various layers of musical meaning (the "what" system) and the temporal-attentional abilities that enable to express them in real time (the "how" system). The paper concludes with a short introduction to a novel implementation of the above model of performer's phenomenological processes into performance teaching: a full training of musical attention called "Practice Methodology".*

Key-words: *musical expressiveness, mental/attentional strategies and processes, phenomenology, musical attention training, Practice Methodology.*

1. Introduction

It has been thoughtfully explained by one of the leading German musicologists of the 20th century, Hans Heinrich Eggebrecht, that in the history of thinking about Western art music two antagonistic approaches have developed about the nature of music (Dahlhaus and Eggebrecht 1985). The first approach viewed music as an emotional phenomenon – that is, as principally expressive of emotions –, whereas the other approach considered music as essentially formal (form-driven) and "computational" (Eggebrecht characterised this latter approach with the ancient

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Greek term ‘mathesis’). Eggebrecht associated the various eras and styles in the history of Western music with the predominance of one of the two approaches. However, in reality, emotion and mathesis are far from being exclusive of each other in music: it is the very essence of music that structures are profoundly impregnated with emotions (for three converging approaches from different domains see: Meyer 1956 and Huron, 2006 [aesthetics and psychology of music]; Dahlhaus and Eggebrecht, 1985 [history of music aesthetics]; and Dobszay, 2012 [music analysis and pedagogy]). On one hand, every piece of structural information is associated with feeling: we express musical structures – in fact, temporally unfolding processes – through feeling them (e.g., performers are able to anticipate and feel the length of a musical unit to be performed, or subjectively link feelings to components of the tonal structure of compositions such as chords, chord changes, etc.); on the other hand, emotional expression is highly structured in musical compositions.

Theories of music and musical ability, as well as the vast majority of our pedagogical methods, are generally built on formal components of musical processes (such as meter, rhythm and agogic, pitch, dynamics, or timbre; cf. Juslin, 2009). Only surprisingly rarely are components of (what we may call) the musical content conceived in both academic and educational contexts, despite the fact that understanding music (the nurturing of which is undoubtedly the key goal of any kind of music pedagogy) cannot consist of merely reproducing formal features of musical stimuli. Note that a radio, a smartphone, or even certain birds can perfectly reproduce musical excerpts, but none of them ‘understands’ them as this definitely (and by definition) requires the capacity of forming emotionally coloured mental representations based on felt experiences. Thus understanding is built on an empathic detection of feelings and emotions connected to the content (or meaning) of music.

From what we have been arguing for so far, an essential pedagogical consequence follows: music performers ought to be responsible for (1) forming musical meanings for themselves (to give themselves opportunity to form their own musical meanings – that is, what to express), as well as for (2) learning how to focus on these subjective meanings in real time, while performing – that is, how to express them.

2. The “what” system in performance expressiveness: The content of music

In music, ‘content’ (or ‘meaning’) may be defined as the sum of the thoughts and the feelings the listener associates with a musical process by virtue of

understanding it (for a recent definition, based on theories and empirical findings in music aesthetics and psychology, see Stachó, 2018). Understanding (that is, the cognitive formation and representation of musical meanings) requires feeling. But, naturally, music means different things to different people: it is impossible to define, hence to teach, to anyone 'what a diminished seventh chord means' – but a teacher can help a student to find, or create, their own meaning related to the diminished 7th chord, which will always be subjective.

To uncover the possible categories of musical content and integrate them into a coherent and parsimonious theoretical framework, we need to search for categories that (a) have different origins, (b) display performance-cue patterns (e.g., timing patterns) with different characteristics, (c) have different effects on listeners' perception, and (d) are related to neurological differences in processing (that is, the skills/abilities connected to the components may be selectively injured as they are likely to be processed by different brain regions) (for these criteria of delineating categories see Juslin 2003). Along these lines the following such categories, or layers, of musical content can be theorised that can be intentionally expressed in a composition and through a performance (or improvisation), thus constituting the frame of aesthetic experience (Stachó 2018):

(1) A basic source of musical meaning is the physical dynamism of music. Components of the musical flow bear resemblance to physical patterns of posture and gesture (cf. Jackendoff & Lerdahl, 2006). This level of musical understanding is available from early infancy and originates from the dynamic cross-modal attunement in mother–infant interaction (Stern, 1985). *Musical gestures* (or movement patterns expressed through musical processes), which constitute perhaps the most rudimentary elements of musical meaning, may be described in dynamic, kinetic terms, such as 'surging', 'fading away,' 'fleeting,' 'bursting', 'drawn out,' and so forth. These qualities of experience are thought to be most certainly accessible to infants, but they are of greatest relevance even at the most sophisticated levels of musical understanding. From the point of view of pedagogy, coupling music listening or performance with gestures and movement can not only particularly efficiently foster musical understanding but it contributes to the development of empathy and language as well, due to the shared neural networks (see e.g., Vass 2019).

(2) Besides gestures we feel during listening to, or performing, music, a direct expression of more static affective states in music is also of seminal importance in the process of understanding music. These more static affective states are usually called *'character'* by performers and in the pedagogical practice. Nobility, gloom, fear, pain, or countless further emotional states may be expressed by means of gestures – in fact, they are based on them –, however, they can also occur

independently of gestures (for the most up-to-date theories on directly expressed emotions in music see Juslin 2013; Zentner, Grandjean, Scherer 2008).

(3) A further layer of musical meaning, the *narrative–dramatic structure* of a piece (or improvisation) builds on the empathic projection of feelings onto dynamic processes like music and their ordering according to a narrative–dramatic plan (Levinson, 2004). It mainly relies on gestures and characters as their succession usually builds up the narrative (the "story") and the drama (the unfolding of patterns of psychological tension) inherent in musical compositions or improvisations, from the shortest to the most complex ones.

(4) The *tonal structure* of a musical composition/improvisation is the hierarchical framework of the pitch and harmonic content of the musical process which unfolds in time. Subjective meanings resulting from its perception relate to the emotion-creating fulfilment or unfulfilment of momentary expectations about the continuation of music (for an integrative account see Huron 2006).

(5) Such momentary expectations and the emotions resulting from them characterise the perception of the temporal structure of musical processes, too, including the *metrical structure* (viz., the hierarchical temporal framework that organises the musical flow into regularly recurring bars of stressed and unstressed units of pulse [i.e., beats], which in turn are hierarchically organized into larger units) and the *grouping structure* (which "fills out" the metrical structure with thematic material: it is the segmentation of the musical flow into motives, phrases, and bigger sections).

It has to be emphasised that what builds up the subjective meanings related to musical processes is *not the intellectual knowledge* (neither the recognition, nor the reproduction) of movement patterns, directly expressed emotional states, or the formal structure, *but the feeling* of these categories in real time. To express this somewhat categorically: it may prove rather useless for a performer to intellectually know facts about the movement patterns, the characters, the narrative–dramatic process, or the structure of a piece; instead, she needs to feel them. Consequently, musical ability (which, from the point of view of the performer, may be defined as the capacity that enables someone to produce meaningful musical performances) is, firstly, the ability to feel the various categories of musical content/meaning in real time and, secondly, to *navigate* the musical process in the act of performance (or, from the point of view of the listener, while listening to a performance) while actively feeling the content categories. In fact, there is a growing body of evidence that mental strategies supporting the perceived expressivity, intelligibility, and individuality of a performance rely on performers' real-time mental representation of musical meaning during playing, that is, their own understanding of gestures, the direct

emotional expression, the narrative–dramatic process, and the tonal and temporal structural processes (Stachó 2018): musical performances that are felt by listeners as *meaningful* and *expressive* rely on performers' empathic positioning into the different layers of musical content delineated above. From the point of view of pedagogy, we need to emphasise that while intellectual comprehension (apprehension) without feeling cannot count as proper understanding based on what we have been arguing for so far, in music lessons we so often stop at teaching mere intellectual knowledge without going further to the main goal of music pedagogy: nurturing feeling. To cite but the most notable examples, while the widely used recognising and reproducing tasks in aural skills training focus on form and technique, the major part of instrumental/singing training usually focuses on instrumental/singing technique – instead of enhancing musical understanding by training the ability to feel the musical meaning/content (both in theory / aural skills training and instrumental classes). But when we teach what is easy to teach (such as the 'mathesis' aspect of form through recognising and reproducing tasks, or mere instrumental technique), we leave the student alone with the most difficult task: fostering feeling.

3. The "how" system in performance expressiveness: The real-time navigation of the musical flow

I argue that a most powerful music pedagogy should aim at efficiently developing the generative ability of real-time navigation of the musical process, that is, the above-discussed ability to mentally position into the various layers of musical content in real time during performance (the "how" component of expressivity, as mentioned in the introduction). This ability opens the way to the *full concentration and feeling in real time*.

Through the capacity to fully focus on the musical meaning in real time the performer (1) becomes able not only to know but also feel and fully enjoy every single moment of the musical process while performing, or to feel the position in the musical structure she is actually playing; (2) at well-definable moments in the act of performance, she becomes able to intensely recollect on how she has shaped the music in the past moments (that is, the performer becomes able to form a clear mental image of the past musical units to which the upcoming ones are to be measured), and (3) based on (2), to set out how to shape the subsequent moments, that is, to anticipate the upcoming structural units (e.g., by forming a clear mental image of their duration before starting them). Here is a brief summary of the music performer's three core skills underlying expressiveness:

3.1. Anticipation (prediction): "being in the future"

Active anticipation is a core ability leading to excellence not only in music but also in sports (cf. Savelsbergh et al., 2002; Vestberg et al, 2012; Singer et al., 1996, Williams et al. 2011; Crognier and Féry 2007). For example, an outstanding football player is capable to anticipate, through a quite complicated unconscious mental computation, where the ball is going to move rather than merely looking at it (Wimshurst 2012). Parallelly with this, the expressive quality of a musical performance is hypothesised to be correlated with the pre-imagining and pre-feeling of the length of ensuing structural units (notes, motifs, phrases, or larger sections) in the moment before starting them.

3.2. Mindfulness: "being in the present"

There are instants in a musical process when highly expressive performers tend to realise a much focused, mindful perception of the present sounding moment, without breaking the performance process. The capacity to achieve deep immersion into the present musical moment (that is, to be able to observe and enjoy the sound of the actual sounding chord/note, to feel it deeply, to be fully absorbed in it) can be considered as a specific instance of empathising. Without such momentary immersions, a performance tends to be perceived by listeners as superficial and weakly expressive, and the performer may not be able to capture the listeners' attention. Such kind of momentary immersions usually last for a fraction of a second, and have specific music-theoretical functions such as marking tonally important moments.

3.3. Reflection: "being in the past"

Besides the ability to actively anticipate (i.e., "being in the future"), performance expressiveness necessitates the formation of a clear mental image of the past musical units to which the upcoming ones are to be measured. Typically, this involves tonal and temporal retrospection on the previous musical unit: at the end of a structural unit, the performer recalls in her imagination the feeling of the length and tonality of that bit (which can be of any length, including a pair of notes, or even one single note, which is, in fact, the shortest grouping unit).

3.4. The performer's musical "GPS"

These three attentional abilities build up what we may call the performer's musical "GPS", which helps to feel securely and comfortably in the act of performance. Based on insights from pedagogical practice, these attentional strategies likely rely on a more general empathic ability and may be nurtured relatively easily in most people, including those scoring rather poor on standard musical aptitude tests measuring "melodic", "rhythmic", or "harmonic" skills (cf. Stachó 2015).

In sum, according to the model introduced here, mental–attentional processing underlying performance expressiveness involves the ability to quickly position into different temporal and empathic perspectives (in fact, similarly to projecting oneself into another person's position), in order to mentally represent the subjective meaning of music in real time. Active present-focus typically allow for a momentary but focused enjoyment of either the character or the tonally salient points of a musical process; active momentary future-focus marks the starting points of units of the temporal structure; active past-focused attentional absorption allows for an active momentary recollection of the length and the tonal trajectory of a previous musical unit – usually within a fraction of a second during performance. Based on theoretical, empirical, and pedagogical considerations, I argue that these attentional abilities are largely responsible for the creation of expressiveness in performance – thus a most powerful pedagogy for musical performance, including both music-theoretical and instrumental pedagogy, should aim at fostering these abilities. This new approach requires novel sets of methods that will likely constitute a genuinely 21st-century music pedagogy.

4. *Practice Methodology:* a novel training of musical attention

The most efficient means to develop the attentional skills delineated above is to practise them separately through specifically designed exercises. *Practice Methodology (PM)* is a novel implementation in performance teaching of the above model of performer's phenomenological processes. This methodology for enhancing in performers the ability of real-time navigating encompasses the readiness to mentally position into each of the three temporal dimensions. *PM* was gradually developed during the past decade at the Liszt Academy of Music (Budapest) and at the Faculty of Music of the University of Szeged, in Hungary. The Methodology leads the student through a series of specifically designed musical exercises based predominantly on visuo-spatial metaphors: it incorporates, but is

not limited to, systematic exercises of visualisation and shaping connected to each of the three imagery abilities, as well as to their interconnections.

For example, a vital part of the toolkit of the PM consists of exercises specifically aiming at developing the performer's mental-attentional readiness to 'fall into the moment', which can be easily achieved through for example focusing on a concrete quality of the sound (e.g. intonation, timbre) or through the use of specific visuo-spatial and gestural metaphors. *PM* exercises related to the mental retrospective process during performance involve directed musical imagery, visuo-spatial imagery exercises, as well as gaze guiding. In turn, efficiently fostering the readiness to anticipate during performance can be realised through *PM* exercises based on visuo-spatial imagery and gestural metaphors (e.g., ball throwing to different distances). These exercises are applicable both during the process of instrumental or vocal practice of a piece and independently of it, thus constituting a specific training for developing a mental 'readiness' which actuates the real-time mental navigation in the musical process. The methodology can be used alongside with a more traditional practice regime, complementing it and functioning as an enhancer to it.

4.1. Discussion and implications for future practice

Since 2013, the Methodology has been introduced into performance curricula at the tertiary level in several institutions in Hungary, and it has been tried out in fifteen countries so far, including different musical and music pedagogical cultures. Experience to date in primary and secondary level music schools, along with the results of its introduction at the tertiary level, showed that *PM* can be used with considerable success from the very beginning up to the most advanced levels of music education. The acquisition of the mental 'toolkit' provided by the *PM* training, has thus been proposed to be one of the core tasks of the process of instrumental and singing practice: it enables the musician to 'let go' in the moment and to be emotionally deeply engaged with music (this is particularly fostered through the mindfulness exercises of *PM*), but also to take expressive risks and to deal with mistakes while performing (thanks to the mental readiness developed through further *PM* exercises, which help the performer feel security in the musical process and becomes able to react to mistakes without impeding the musical integrity of the process). Moreover, enhancing musical understanding on the grounds of *PM* typically results in overcoming a significant amount of technical constraints. Finally, one of the most important benefits of the toolkit provided by the Methodology, connected to originality and creativity appears to be the following: the use of the various methods *PM* contains quickly opens the way to

the performer's spontaneity (typically, while avoiding its negative aspects) facilitating authenticity and feeling of 'ownership' over the music.

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