

Exploring the Links between Music and Changing Conceptions of Consciousness: Some Implications for Education

By

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ABSTRACT

Music, in all its forms, has long played an integral role in human life, functioning not merely as a form of cultural activity and entertainment but also as a profound conduit for exploring the links between the artistic Endeavour and forms of human consciousness. As such, music is, quite rightly, entitled to a central place in educational activity yet – as with other aspects of the humanities, literature and the fine arts – it is not always emphasized sufficiently in the curricula of educational systems which tend to be dominated by job-related academic outcomes and test-driven summative assessment models. This article seeks to re-assert the importance of music as a crucial curriculum subject by exploring its myriad nature, forms and purposes, particularly its positive role in terms of the cognitive/affective personal development of learners and the ways in which it can contribute to collective social ethics and cultural enrichment. As part of this exploration, the nature of music will be examined against the background of changing philosophical perspectives on consciousness, in particular, the growing critiques of the failure of scientific materialism to solve the “hard problem” of consciousness offered by new idealist thinkers who posit the notion that consciousness is the ultimate ontological primitive. It will be suggested that the richness of this discourse – in linking the new idealist models to the artistic Endeavour – can serve to reinforce the valuable contribution music can make to educational development at all levels.

Introduction

1. “Without music, life would be a mistake” – Friedrich Nietzsche: *Twilight of the Idols*

Music has been part of educational curricula since Ancient Greek times. In *The Republic*, Plato, accorded a central place to ‘musical and gymnastic training’ (Curtis & Boulton, 1970 edn, p.25) for the development of citizens, and Aristotle in *The Politics* outlined a curriculum which consisted of Reading and Writing, Gymnastic, Music and Drawing. Aristotle was of the view that ‘music and the other arts assist the individual in freeing himself of his pent up feelings which he cannot discharge in the ordinary natural course’ (ibid., p.45). This general tradition was extended into Roman Education and such classical ideas for the organisation of curricula later informed the development of modern education systems, especially in Europe and North America (Castle, 1967). It was the writings of Aristotle in particular which – conserved and curated by Arabic scholars in the years before the Renaissance – were later to be integrated with Christianity and, thus, went on to inform the nature of curricula in the West, especially the notion of a classical liberal education (Peters, 1966). For Aristotle, music was a core element in the education of people to become virtuous citizens. In *The Politics* he writes:

Must we not regard music as a stimulus to goodness, capable of having an effect on the character, in just the same way as gymnastic training produces a body of a certain type, and so capable of forming men who have the habit of right critical appreciation...Now in rhythm and tunes there is a close resemblance to reality – the realities of anger and gentleness, also of courage and moderation....indeed of all moral qualities; and the fact that music heard does indeed produce cause an emotional change in us is an indication of this (1967, edn., pp.306; 308-9).

However, in contemporary educational literature there is a growing consensus that music education has lost its way both in terms of purpose and influence in modern systems. Daron Nelson (2024) has written of the gradual decline of music education in the USA, and the Department for Education in Britain reported a 20% decline in entries for music education subjects in recent times (DfE, 2019). More pointedly, the music commentator and educator, Neil Moore (2022) has recently stated that:

I have concerns about the current state of traditional music education. I assert that our current, broader system of music education has failed, and continues to fail in achieving its fundamental charter – to equip the population with the ability to be musically self-expressed. (Moore, 2022, p.1).

2. Music: Nature and Purpose

A basic, minimalist definition of music is:

a complex and multifaceted phenomenon that encompasses sound, rhythm, melody, harmony, and emotional expression. While it can be experienced in various forms across cultures and contexts, defining it scientifically can be challenging due to its subjective nature (Quora, 2023, p.1).

It is, of course, necessary to broaden the scope of the enquiry by examining a range of cognate perspectives and core features. Examples of this wider conception would include:

1. **Acoustic Perspective:** From a physical standpoint, music can be defined as organized sound. It involves vibrations that travel through air (or other mediums) and are perceived by the human ear. Sound waves can be characterized by frequency (pitch), amplitude (loudness), and timbre (quality).
2. **Psychological Perspective:** Music is often described as a structured arrangement of sounds that elicits emotional responses in listeners. This arrangement can include elements like rhythm (the timing of sounds), melody (a sequence of pitches), and harmony (the combination of different pitches).
3. **Cultural Perspective:** Music varies significantly across cultures, and what is considered music in one culture may not be recognized as such in another. This highlights the role of social context and cultural norms in defining music.
4. **Neuroscientific Perspective:** Research in neuroscience has shown that music activates various areas of the brain associated with emotion, memory, and motor control. The brain processes music through complex neural pathways, reflecting its profound impact on human cognition and emotion.

While there isn't a single, universally accepted scientific definition of music, it can generally be understood as a human-made phenomenon involving organized sound that has the power to convey emotions, communicate ideas, and foster social connection (Quora, pp.2-3). Some of the key perspectives noted above, particularly the psychological, cultural and neuroscientific elements, will be further elaborated in Section 5 below,

3. Consciousness: Alternative Narratives

Throughout the ages, the concept of consciousness has presented a considerable challenge to philosophers, psychologists and artists alike. Dennett (1991) insists that consciousness is not a single entity but rather an interplay of multiple cognitive and affective processes that shape our understanding of the world around us. As such the concept encompasses self-awareness (what it is like to be a distinctive entity, Nagel, 1974), basic subjective experience and, at meta levels, the capacity for reflection, for thinking about thinking. In addition, it is worth noting that what Lent (2021) calls 'animate consciousness' is all around us in the natural world in the lives of animals from the smallest insects to the more complex lives of higher primates and mammals.

3.1 The Hard Problem of Consciousness

Susan Blackmore (2011) has defined the so-called 'hard problem of consciousness' in terms of the question: 'how can objective, physical processes in the brain give rise to subjective experience?' (p.25). Within philosophy of mind, this 'mind-body problem' goes back at least as far as Descartes and his infamous dualist analysis of the mental and physical worlds which leaves unexplained exactly how they may be connected (Searle, 2004). More generally it results in the long-standing problem of how to explain subjective mental phenomena such as hopes, wishes, intentions, etc. – or simply what it is like to be something (Nagel, 1974) – in a world which, according to science, consists only of material objects, forces and processes.

Panpsychism (Hyland, 2021) has emerged as a key component in attempts to solve the hard problem of consciousness which consists in explaining the existence of non-materialist subjective experiences in a world which mainstream science insists is made up of purely materialist elements. Although contemporary interpretations of panpsychism are, in the main, utilised in trying to solve problems of consciousness, the concept has a long history with diverse and widespread uses and applications.

David Chalmers (1996) outlines the 'easy' problems of consciousness, that is, how to map brain functions onto human thinking and behaviour. Such 'easy' problems include the integration of information by a cognitive system, the focus of attention, and the reportability of mental states, but such essentially functional processes leave us with the question of 'why the performance of these functions is accompanied by experience' (p.5). This is labelled by Chalmers the 'central mystery' (ibid) of consciousness and gives rise to the 'hard problem' of how to understand and explain the undisputed existence of subjective mental states in a world which science tells us consists only of physical elements, fields and forces.

3.2 Physicalist Panpsychism

In later work, Chalmers (2013) has advanced a number of speculative solutions such as that the fundamental building blocks of the universe utilised by science – space, time and mass, for example – may have to be extended to include consciousness as a primary entity or universal property of everything in the cosmos. This is described as a 'nonreductive psychophysical' notion which supplements physical theories by explaining how 'physical processes are connected with and dependent upon the 'properties of experience' (p.17).

To make headway on this, as Strawson (2006, 2016) argues, it is necessary to introduce some notion of subjective experience into existing physical theories. Real physicalists according to Strawson, 'must accept that experiential phenomena are physical phenomena' (2006, p.1), and supports the assertion concerning the emergence of experiential or consciousness properties from physical, non-experiential characteristics through, *inter alia*, the analogy of the emergence of the liquidity of water from non-liquid H₂O molecules. A core aspect of this speculative thesis is that we do not know enough about the nature of the physical to argue – as dualists since Descartes and most post-Cartesian philosophers have held – that the physical and the mental are irrevocably distinct and irreconcilable. Making use of arguments by Eddington and Russell, Strawson asks 'on what conceivable grounds do so many physicalists simply

assume that the physical, in itself, is an essentially and wholly non-experiential phenomenon?’(ibid.,p.3).

3.3. Idealist Panpsychism

Although physicalist materialism has been the foundation of science since the Enlightenment it has not gone unchallenged within philosophy where idealist theories of knowledge, truth and reality have been around since the Ancient Greeks. Shan Gao (2014) has produced a fascinating philosophical history of panpsychism which demonstrates how thinkers from the pre-Socratics, through Plato and Aristotle, and down through the Renaissance and Enlightenment periods to current philosophy of science have advanced theories which propose that the natural world is imbued with, and indeed dependent upon, some form of conscious or mental element. However, in order to avoid the mind/body dualist black hole some form of monism needs to be considered, and Occam’s Razor has led many thinkers – notably Leibniz, Berkeley and, in more recent times, Russell and Whitehead – to consider seriously the notion that, as Philip Goff (2019) puts it, ‘consciousness is a fundamental and ubiquitous feature of physical reality’ (p.112).

A principal materialist move is to assert that – since it is generally assumed that consciousness is generated by the brain – it is simply a matter of time before cognitive neuroscientists provide data which will solve the hard problem. However, as Steve Taylor (2018) has argued at length, there are no satisfactory models of how the mind/brain link can be supported, and he outlines the range of implausible claims – from epiphenomenalism to illusionism (pp.58-64) – which have failed to solve the principal problems. In addition, there is now a good range of neuroscientific data which indicates that – contra the physicalist assumptions – certain anomalous states of awareness (such as those produced by brain impairment, hallucinogenic episodes, or near-death experiences) result in *reduced* brain activity (ibid.,pp.67ff.).

Along with the glaringly obvious implausibility of the notion that there might be neural correlates of the taste of coffee, the smell of a flower or the sound of falling rain, the reduction of brain activity in transcendent states of awareness is the exact opposite of what is entailed by the materialist assumption that all experience is generated by the brain. The realisation that metaphysical materialism has to be abandoned as an explanation of consciousness represents a courageous step but such a move has been made by Francis Crick’s former colleague, Christof Koch (2014) who argues that the ‘emergence of subjective feelings from physical stuff appears inconceivable’ and that, rather than being produced by the circuitry of the brain, consciousness is ‘inherent in the design of the universe’ (p.28).

Moreover, as Bernardo Kastrup (2014) points out, there is a crucial difference ‘between materialism as a *metaphysics* and scientific theories as *models*’ (p.10). Scientific materialism observes patterns and regularities in nature and constructs models which explain objects and forces – such as subatomic particles and negative electric charge – in terms of their relationship to other cognate constructions and issues only in *quantities* not the *qualities* of phenomenal experience. Explaining and predicting how aspects of the material world operate relative to other aspects reveals nothing about the fundamental aspects of nature. The analytical idealism proposed by Kastrup as a more cogent alternative is claimed to solve, or rather, dissolve the hard problem by positing a form of idealist panpsychism by which consciousness is the ultimate primitive.

The explanation of why we seem to be separate from the world and other beings is expressed in terms of the idea of dissociated mind states drawn from well-established psychological studies. The brain, rather than generating experience, receives and canalizes information from the transpersonal world of mind. Like whirlpools in the stream of consciousness, individual minds are a ‘partial localization of the flow of experiences in the stream’ (2014, p.82). This idea of subjective experience as individualised representations of transpersonal consciousness is further elaborated by Hoffman (2019) in his theory of conscious realism.

Following Occam’s simplest is best doctrine, the next logical step is to posit the idea that, as Donald Hoffman (2019) prefers to say, it is consciousness itself – not space time, forces or material objects – that forms the fundamental basis of the cosmos. Hoffman argues that ‘space, time and physical objects are not objective reality. They are simply the virtual world delivered by our senses to help us play the game of life’ (p.xv). His ultimate claim – justified in terms of mathematical arguments rooted in evolutionary facts – is that, contra the physicalist case, it could be that ‘consciousness does not arrive from matter...instead matter and spacetime arise from consciousness’ (p.xviii).

Labelled ‘conscious realism’, this theory ‘claims no central role for human consciousness’ but ‘posits countless kinds of conscious agents with a boundless variety of conscious experiences’ (p.201).

Hoffman is acutely aware of the monumental cognitive dissonance which may result from considering such ideas but insists that it is simply an extension of the ideas of Galileo and Darwin. Moreover, the notion that reality is constructed through the interaction of conscious agents is supported by a robust mathematical model (pp.203-5) which underpins a process whose objective is to show how everything that we claim to know can be derived ultimately from the theory. He concludes his thesis with the following challenge:

Spacetime is your virtual reality, a headset of your own making. The objects you see are your own invention. You create them with a glance and destroy them with a blink. You have worn this headset all your life. What happens if you take it off? (p.202).

4. Forms of Consciousness and Musical Activity

Musical forms, styles, tastes and values are obviously influenced by myriad factors such as evolving cultural fashions, prevailing politico-economic systems, ethical mores, and changes in social class dynamics (Scholes, 1970 edn.). What needs to be added to such influences is the evolution of different conceptions and interpretations of consciousness of the sort outlined above. If we adopt a materialist or physicalist conception of human experience and reality, this will influence the nature of musical composition and appreciation and, *ipso facto*, the same can be said for philosophical frameworks foregrounding more neo-idealist, anti-realist viewpoints.

As indicated above, physicalist and realist positions on consciousness regard it as primarily a function of the brain, affirming a scientific materialist perspective that emphasizes observable phenomena (Kania&Gracyk, 2011). This viewpoint often manifests in musical works characterized by structure, clarity and the pursuit of objectivity. Consider, for instance, minimalist composers such as Steve Reich, Philip Glass and Max Richter who employ repetitive patterns and gradual, granular transformations. These emphases mirror the physical processes of human thought which relate to the raw mechanics of sound as it impacts and interact with brain processes. The deliberate and systematic layering of musical figures invites listeners to focus on the underlying processes, revealing the conscious experience of real-time and perception (Bowie, 2007).

In contrast, neo-idealist and anti-realist conceptions propose, as Kastrup and Hoffman argue, that consciousness itself shapes reality, thus foregrounding subjective experience and the interpretative nature of our relation to the phenomenal world. This philosophical stance may often lead to artistic expressions that highlight emotional depth and the multitude of individualistic perceptions (in literature, cognate examples would be James Joyce and Virginia Woolf). The romantic era in music exemplifies this tendency, with composers like Schubert and Schumann drawing deeply from personal experience and emotion (Scholes, 1970 edn.). Schubert’s *Lieder*, *Gretchen am Spinnrade*, for instance, evoke a rich tapestry of longing and introspection, reflecting the inner working of the mind rather than adhering to rigid structural norms. In this sense, Romantic music aligns with the neo-idealist belief that consciousness is fundamentally integral to interpreting reality and invites listeners to create meaning by accessing their own internal landscapes (Kania, 2020).

To further explore these influences, consider how modern experimental music represents both philosophical perspectives. John Cage’s work is illustrative in this respect; his ‘4.33’ (Hochberg, 2010) challenges the very notion of music as a structural or audible experience, embodying an anti-realist stance which radically interrogates the boundaries of what counts as music and musicality. Silence becomes a medium for awareness, allowing the listeners’ consciousness to engage in profound contemplation of their environment and immediate phenomenal experience. This approach resonates deeply with neo-idealist thought where the subjective becomes paramount, and reality is shaped by immediate mindful perception.

Conversely, the development of scientific and digital technologies aligns more with the materialistic and realist perspective, pushing towards an understanding of sound as manipulable bits of data (Bowie, 2007). Generative music, exemplified by artists like Brian Eno, likewise reflects a structured yet creatively dynamic engagement with auditory

experiences. Eno's album, *Music for Airports* (Polydor, 1978), is a paradigm example of how technology can create an environment that embodies the physicality of sound while remaining adaptive and fluid, thus paralleling real-time thought processes. The pieces are constructed to respond to listener engagement, highlighting sonic experience as a physical phenomenon.

5. The Values of Music and Music Education: Further Justification

In earlier sections, some key arguments for strengthening the place of music education were outlined, and the foregoing section has sought to reinforce the value of music by linking musical forms with key issues in the philosophy of mind and consciousness studies. However, there is much more to be said in terms of the justification of the place of music in education and society, and in this section, I want to expand on some of the perspectives outlined in Section 2 above.

5.1. Cultural Factors

Different cultures associate various emotions with specific musical scales, rhythms and instruments. For instance, a minor key may evoke sadness in Western cultures, while it might have different connotations in the East. Such variations can shape how individuals perceive and process their emotions when listening to music, thus influencing all aspects of their conscious experience. Cultural backgrounds provide varying cognitive/affective frameworks through which people respond to music. Western listeners, for example, may analyse music structurally, focusing on harmony and melody, while individuals from Indian or African traditions may emphasize improvisation or rhythm (Kania&Gracyk, 2011). These differing approaches can affect how we people engage with and understand music, altering their conscious experience, appreciation and valuing of musical experiences. Moreover, music also serves as a vessel for cultural memory, connecting individuals to their heritage and identity through contextualized social rituals and collective traditions.

In the light of all, music education can play a vital role – particularly in multicultural societies in Europe and America – in building bridges between different traditions. In a globalized world, individuals often encounter a blend of musical traditions, leading to hybrid experiences. Such multicultural exposure may influence personal responses to music, potentially expanding conscious interpretations and appreciation of different forms in ways which deeply impact personal musical and emotional development. Ideally, students would be exposed to a wide range of musical forms and traditions – both as listeners and music makers – in ways which deepen their general awareness of world music, a process which will be greatly enhanced by collective musical activity as a central curriculum element (DfE, 2019).

Within this cultural framework, it is also worth emphasizing the role of music in informing and inspiring the work of social movements and political activism. Liz Ohanesian (2017) reminds us that progressive workers movements in the USA during the post-Depression years were given prominence and impetus by folk singers such as Woody Guthrie and Pete Seeger. Guthrie's classic song, *This Land is Your Land*, was intended to be a critical response to *God Bless America* (pp.1-2). More recently, John Lennon's peace songs and the *Rock Against Racism* movement of the 1970s are similar examples of social activism assisted by music. In a similar vein, Andrew Reese (2015), has mapped the diverse ways in which music has been integrally involved in social change. From the work of Bob Dylan and Joan Baez which was an integral part of the civil rights movement in the 1960s to the seminal influence of the Staple Singers and Stax records in highlighting the central aims of 'black empowerment, moving beyond legal recognition of equality to a focus on self-determination' (p.2), Reese shows how music has long been an invaluable aspect of forms of social activism.

5.2. Psychological Factors

It has been long established that music has the capacity to alter states of consciousness through the elicitation of deep emotional states. Jung's pioneering work on the human collective unconsciousness and symbolism (1964) provides ample illustration of the crucial importance of work in this sphere. Research by Thoma, et al (2013) indicated that music therapy can reduce anxiety and facilitate altered states conducive to mind/body health. In similar work, Csikszentmihalyi (1990) has articulated the concept of "flow" which can further explain how engagement with music can enhance awareness and focus, transforming consciousness during listening or performance. Writing in the Harvard Medical School Magazine recently, Eck (2024) noted research findings which indicated that:

Music also lights up nearly all of the brain — including the hippocampus and amygdala, which activate emotional responses to music through memory; the limbic system, which governs pleasure, motivation, and reward; and the body's motor system. This is why “it's easy to tap your feet or clap your hands to musical rhythms,” says Andrew Budson, MD '93, chief of cognitive and behavioral neurology at the Veterans Affairs Boston Healthcare System. The brain's elaborate receptivity to music means that “lots of different things are going on simultaneously,” Budson adds, so music “ends up being encoded as a rich experience.” (p.2).

All of these research-informed psychological benefits of listening to music serve to highlight the importance of music education and justify its place in the standard curriculum alongside lessons in social, emotional and moral education. As such, musical themes and issues might constitute a dimension of the current mindfulness education approaches which are currently so influential in systems at all levels (Hyland, 2011).

5.3 Neurological Factors

Just as the mindfulness programmes referred to in the last section have gained educational prominence through studies which point to the many positive beneficial of paying close attention to the present moment, so neuroimaging studies have indicated similar outcomes in these spheres. In relation to mindfulness, Tang, Holzel & Posner (2015) observed that:

Research over the past two decades broadly supports the claim that mindfulness meditation - practiced widely for the reduction of stress and promotion of health - exerts beneficial effects on physical and mental health, and cognitive performance. Recent neuroimaging studies have begun to uncover the brain areas and networks that mediate these positive effects (p.1-2).

Applied to music studies, work by researchers such as Levitin (2007) using neuroimaging have reported that music can activate brain regions associated with memory, emotion and reward. This suggests that music not only reflects but can also modulate consciousness by influencing neural pathways. Such work serves to reinforce the message stressed above about the importance of having a robust musical presence in educational curricula at all levels (Moore, 2022).

6. Concluding Remarks: Education and the Philosophy of Music

“Music doesn't lie. If there is something to be changed in this world, then it can only happen through music” - Jimi Hendrix

The arch pessimist philosopher, Arthur Schopenhauer, though espousing a doctrine which saw humans as unfortunate suffering souls in a world which is really ‘a place of atonement, a sort of penal colony’ (1970edn., p.15), did have positive things to say about the arts as means of escaping the blind striving will which causes all our suffering. Moreover, of all the arts, he accorded a central place to the aesthetic power of music in transforming human suffering. Schopenhauer (2004, edn.) argues that the ‘effect of music is so much more powerful and penetrating than that of the other arts, for they speak only of the shadow while music speaks of the essence’ (p.165). This resonates well with the views of other philosophers such as Plato and Aristotle mentioned in Section 1 above. Similar views about the crucial place of music in human culture have been reviewed by Blumenau (2015) who analyses the work of thinkers such as Pythagoras, Leibniz, Kant, Schelling, and Nietzsche about musical themes and matters. All of these thinkers gave prominence to the role of music in transforming intellectual, cognitive and ethical aspects of human experience and behaviour.

Combined with the important therapeutic impact of music on all aspects of human individual and collective development, such philosophical justification adds considerable weight to recommendations for a robust musical element in educational systems. Philosophy of mind concerned with the hard problem of consciousness is now central to contemporary philosophical debate (Chalmers, 2013), and I hope to have demonstrated how different conceptions of consciousness can be connected with music in ways which strengthen the status of music as a unique and immeasurably valuable cultural phenomenon.

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