

The Psychological Benefits from Reconceptualizing Music-Making as Mindfulness Practice

Matthew Steinfeld, PhD, and Judson Brewer, MD, PhD

While the music psychology and education literatures have devoted considerable attention to *how* musical instrumentalists practice their instruments, less formal scholarly attention has been given in consideration of what it means to maintain a musical “practice” over time and across context. In this paper, the practice of mindfulness meditation is used as heuristic, arguing for a view of mindfulness meditation as a formalized de-specialization of the infinite number of other activities with which people can achieve mindfulness. Sitting meditation, requiring of one to observe the contents of their mind unmediated, can serve as a useful model for the musician in understanding the phenomenology of the music-making process and the “flow” states that can result from an embodied musical practice. Finally, reconceptualizing music-making as a mindfulness practice is considered with psychological and pedagogical implications relevant for developing musicians. *Med Probl Perform Art* 2015; 30(2):84–89.

The practice of attending carefully to the details of one’s experience is probably as old as humankind itself¹; in the academic literature, mindfulness is described as a way of directing attention,² intentionally resting it upon the experience occurring at the present moment in a nonjudgmental or accepting way,³ that allows one to be less reactive to what is happening.⁴

Mindfulness is quite simply a human capacity, and like other capacities it can be honed and sharpened, or it can dull. And although ritualized practices of mindfulness are present in most of the world’s religious and spiritual traditions, there is nothing inherently religious or otherworldly about mindfulness; the same states of mindful awareness have been well documented in a wide range of other domains, from playing tennis to music-making, from playing chess to sailing, from manual labors to the practice of medicine. When a person practices something long enough with mindfulness, they frequently report “being in the flow” of their experience.⁵ Musicians who have experienced these “flow” states have described their experience

of them as one of having “effortless mastery” over mind, instrument, and music.⁶

From a “mindful perspective,” it is a natural human disposition to be present with, lose awareness of, and then reconnect with the immediacy of one’s experience. One doesn’t need to look farther than the common experience of driving a car lost in thought, realizing it, and then bringing one’s attention back to the road on which one is driving. Their awareness of their “lack of awareness” brings them back to being aware. These are the raw ingredients of mindfulness meditation, available in great abundance all day long; in a certain sense, the experience of their presence, absence, and rediscovery is a common process known to all of us. Anything can be a meditation; it just depends on how a person applies their mind to a given task.⁷

So what then is particularly special about mindfulness in meditation? What is so different about a meditator engaged in the practice of mindfulness compared with an athlete or musician in a state of mindful “flow”?⁵ We suggest that meditation is a formalized de-specialization of the infinite number of other activities in which people can practice mindfulness. A person is relating to their mind directly in a meditation practice, not through the added medium of a basketball, trumpet, or any other mediating equipment. Without those mediators, one’s experience can be understood without being cloaked in the particular metaphors of that discipline. It is experienced “as is.” A mindfulness meditation practice requires a person to sit down and experience the contents of their mind, and it is precisely this naked awareness of experience that can serve as a useful model for the musician in understanding the phenomenology of the music-making process.

In the following pages we 1) briefly define meditation, 2) compare the practices of meditation and music-making, 3) propose that music-making can be meaningfully thought of as a mindfulness practice, 4) review the evidence that supports the proposition that the “object” of “the musical meditation” (what one rests one’s mind on and returns to after being distracted) may be meaningfully thought of as the “holding in mind” of embodied musical intentions, and 5) propose that reconceptualizing the practice of music-making as such has psychological implications with regard to the development of musical skill.

WHAT IS MEDITATION?

Often as we walk through life, our bodies obviously present, our minds race about subtly obscuring what is happening right in front of us.⁸ All the more so now that social

Dr. Steinfeld is in the Department of Psychiatry, Yale University School of Medicine, New Haven, CT; and Dr. Brewer is in the Department of Psychiatry, Yale University School of Medicine, New Haven, CT, Center for Mindfulness, University of Massachusetts Medical School, Worcester, MA, and the Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA.

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Address correspondence to: Dr. Matthew Steinfeld, Department of Psychiatry, Yale University School of Medicine, 1 Long Wharf Drive, Box 30, SATU, New Haven, CT 06511, USA. matthew.steinfeld@yale.edu.

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media has permeated all sectors of life, we often think about the past or the future, motivated by hope and fear, and are rarely fully absorbed in the richness of what is happening right where we are.⁹ In fact, studies have shown that we spend roughly 50% of waking life in this type of distracted state,¹⁰ perhaps at least in part because self-referential thinking activates the same reward pathways in our brains as cocaine and other drugs of abuse.¹¹ Because this phenomenon is so prevalent, neuroscientists have been able to identify at least one neural network that may underlie this process, aptly named the “default mode network,” as this is what we default to when not being engaged in a particular task.^{12–14}

Self-referential thinking and evaluation is particularly relevant for musicians, as we are constantly comparing our musical abilities and performances to others, judging ourselves relative to how we have performed previously, or worrying about how we will perform in the future. An extreme example here that most of us can relate to is “choking” during a solo (whether a single line in an orchestral piece, or when performing a concerto), walking off stage afterwards dejected and spending the next day, week, or year replaying the incident in our head.

The intentional resting of our awareness upon experience occurring in the present moment and in a nonjudgmental or accepting way is in a sense an antidote to the disembodied life of this technological age and is a fundamental aspect of nearly all meditation traditions. *Mind-full-ness* literally acts to increase a person’s awareness in the service of experiencing the totality of their life as it is happening moment to moment. And perhaps not surprisingly, in several studies, mindfulness meditation has been shown to quiet the exact brain regions that become (over)activated during self-referential processing—the default mode network.^{15,16} Deactivation of one particular node of the default mode network, the posterior cingulate cortex, has been correlated with improved performance on cognitive tasks,¹⁷ and specifically linked to the subjective experience of “effortless awareness,” a process that may be linked to “flow experiences” during musical performance (described below).^{18,19}

So how is this brought about? While there are many types of meditation, many basic forms share a similar structure. A person assumes a relaxed upright position, not unlike a person sitting at a piano before they place their hands on the keyboard, and rests their attention on something—their breath, sensations in their body, or even a slogan repeated over and over in their mind. Whatever it is that attention is placed upon is referred to as the “object” of the meditation. Inevitably, after a few moments, one’s attention is distracted from the object by internal thoughts, emotions, feelings, sounds, etc. When the meditator notices this, regardless of the distraction, they simply acknowledge these mental phenomena as thinking and return their awareness to the object.²⁰

The result is like taking a glass of water from a stream filled with sediments, and letting it sit still on a table for some time; eventually the air bubbles floating around

burst, the sediments that clouded the water settle, and the water becomes clear. A similar process happens to one’s mind when meditating. As thoughts and reactive emotions settle, what one is left with is the clear, present awareness that, from a contemplative perspective, is present in all people at all times.²¹

COMMON GROUND: THE FORM OF MUSIC-MAKING AND MINDFULNESS MEDITATION

The similarities between music-making and mindfulness meditation extend far beyond the theoretical. For example, both practices place special emphasis on the relationship between teacher and student and how that relationship unfolds over time within the bounds of specific pedagogy.

In contemplative traditions, some more than 2,500 years old,²² this apprentice model of learning is referred to as studying in a lineage.^{20,23} These lineages are unbroken traditions of practice-oriented philosophy and technique handed down generation after generation from teacher to student by method of oral transmission. It involves advice on the application of technique, methods of practice, as well as on how to overcome obstacles in one’s practice.

In the classical music conservatory setting, this method of learning exists almost identically. Joseph Polisi, the president of the Juilliard School, wrote about the history of the teacher-student relationship in learning classical music:

One must remember how time honored and ancient a process the teaching of music really is. The master passes on the tradition and techniques of the art to the next generation of practitioners over a very long period of time. The student privately works on each minute element of the art, establishing physiological and psychological pathways within the body which are reinforced during each day’s practice.²⁴

Both music-making and mindfulness meditation take place within the context of particular cultural traditions, under the mentorship and guidance of a teacher. Both involve the experiencing of one’s mind while engaging in one’s respective “practice,” as well as communicating those insights in interpersonal situations, whether in discussion or to an audience in a concert hall. Both forms demand that the practitioner be able to experience the self in silence, whether sitting on a cushion, in a practice room, or in the spaces between notes. Both are dedicated to the honing of technique in the service of greater self-understanding and refinement and are participants in a lineage of human expressivity—albeit manifest in unique theoretical orientations and worldviews.

RECONCEPTUALIZING MUSIC-MAKING AS MINDFULNESS PRACTICE

While there is a precedent in musicians engaging in such nonmusical somatic practices and studies as the Alexander technique,^{25–27} the Feldenkreis method,²⁸ sports psychol-

ogy,²⁹ and ergonomics,³⁰ a review of the literature yielded only one scientific study that considered the psychological effects of the practice of meditation on music-making. In it, Lin et al. (2008)³¹ reported preliminary evidence that Chan (Zen) meditation has promise in reducing music performance anxiety. And while there is substantive and thoughtful work by several musicians who are also mediators comparing the two practices and considering the benefits of meditation in overcoming obstacles in a musical practice,^{6,32,33} this work is found across several disparate literatures and is rarely presented in an integrated format to health professionals. Building on this extant work, here we are particularly interested in highlighting the psychological benefits of doing so for practicing musicians.

Even if music-making and meditation share similar forms in which teaching and learning take place, what is the basis of a meaningful comparison between the two practices? We suggest that it is the manner in which the practitioner comes back to the object of their practice when distracted that these two practices share, thus yielding sympathetic insight.

From this perspective, music-making can be meaningfully thought of as a specialized manifestation of mindfulness practice unfolding within the medium of sound, embodied action, and rhythm. For individuals to become competent musicians, they need to be able to develop their capacity to hold sound in mind by being able to aurally represent in their minds what they see, hear, or wish to create on their instrument³⁴—this thinking in sound with “music in mind,”³⁵ we propose here is the object of the “musical meditation.” It is the intentional, engaged conceptualization of sound and embodied action unfolding in time.

THE “OBJECT” OF THE MUSICAL MEDITATION: MUSIC IN MIND

In the music psychology and music education literatures, there are convergent proposals that the optimal locus of attention when playing music is the holding of embodied representations of “music in mind.” Methods as diverse as the Solfège,³⁶ Suzuki,³⁷ Schulwerk,³⁸ and Kodály methods³⁹ all argue for the importance of being able to see musical notation on a page and hear the sounds they represent inwardly before reproducing them on an instrument (i.e., working from symbol to sound to action) vs mechanically trying to produce the notated sound (i.e., working from symbol to action and then to its resultant sound).^{40,41}

Indeed, existing research on working memory argues for distinct psychological processes devoted toward storing acoustic and speech-based information in mind for 2 to 3 seconds for just this purpose.^{42–44} The “phonological loop” (which stores and rehearses acoustic-based information, particularly speech) allows for the sounds we produce, both musical and speech-based, to be compared to the sounds we hold in mind, and thus refined towards that representation. Other models of self-monitoring found in the speech-production literature⁴⁵ have proposed that

these comparisons can happen at different levels, both internally prior to the production of an utterance, as well as overtly once an auditory representation has been enacted. [Indeed, one of the authors (MS) was taught to play the trumpet by: (1) playing a single note on a piano, (2) after it had faded trying to “hear” that pitch in mind, and then (3) attempting to “buzz” it on a mouthpiece. With that pitch as an anchor in mind (e.g., the object of mindfulness), eventually the range of non-musical noises produced gravitated towards the desired pitch.] Additionally, the self-monitoring of music held in mind vis-à-vis the music one produces serves not only to make adjustments to one’s own musical performance, but to the performances of other musicians as well.^{46,47}

Furthermore, as playing an instrument always involves the coordination of a range of complex bodily movements to express the musical representations held in mind, it will come as no surprise that brain imaging research has shown that the holding of music in mind is simultaneously encoded and represented in the neurophysiologic systems that support its expression.⁴⁸ Setting aside for the time being the potential relative advantages different kinds of auditory and physical practice might confer, a review of the current literature finds an absence of proposals suggesting that musicians should be deploying their attention on anything other than thinking in sound and coordinating motor action in time to express it.

PSYCHOLOGICAL AND PEDAGOGICAL IMPLICATIONS

In the following section, we describe how mindfulness can support a person’s music-making practice by reviewing literature that has specific implications for dealing with performance anxiety and practice avoidance.

Performance Anxiety

Performance anxiety is frequently the result of worries and/or hopes about what may happen in an upcoming performance, most of the time resulting from potential achievement or failure.³¹ Generally this happens before any performance has taken place and is the result of projecting possible outcomes into the future.

There is a critical difference between “noting” what one is feeling, and judging that same experience. While an awareness of what one is feeling while playing an instrument is vital to the self-monitoring required to perform complex cognitive tasks (as described above), it is rarely helpful to get lost in internal commentary about these self-evaluations while playing an instrument as it divides attention and distracts from the “object” of the musical meditation. Moreover, success at executing a musical performance well can potentially be as disruptive as failure: both create meta-commentary on the performance that can take one out of the present moment. In fact, resting the whole of one’s attention on the object (whether the

music or physical sensations) would make the emergence of performance anxiety somewhat difficult, if not impossible, as there would be no opportunity to get caught up in judgment, fear, or a memory of previous anxiety to provoke the emergence of an anxious state. In this way, the intentional practice of mindfully noting experience as it arises during meditation can cultivate the awareness to quickly notice the emergence of extraneous self-evaluation and judgment while playing music, and efficiently come back to the practice of music-making without proverbially (and literally) missing a beat.

Practice Avoidance: Ignoring What Needs to be Worked On

All people employ a variety of psychological defenses in order to buffer anxiety, maintain self-esteem, regulate their mood, and maintain psychological balance.⁴⁹ In doing so, we regularly reinforce what we are already familiar with doing or feeling and push away or ignore aspects of ourselves that are unpleasant and which, paradoxically, may benefit most from development. In terms of developing musical skill, this often manifests as practicing things already within one's skill level, without addressing those facets of musical technique that need to be worked on. Mindfulness meditation offers a different kind of learning opportunity to "sit with" (e.g., tolerate) something as it is, rather than how we imagine it to be, wish it to be, or hope it to be in the future, and in so doing, ignoring what is actually present and manifest. [For example, before he had a mindfulness practice, one of the authors (JAB) spent quite a bit of time avoiding recording himself practicing for a performance, despite knowing that this objective feedback would be important and helpful for him.]

To the extent possible within the bounds of human perception, the practice of mindfulness involves an honest observation and engagement with all of one's self. As with reactive emotions, so too with musical or technical difficulties: a nonjudgmental awareness of one's practice patterns, where strengths as well as weaknesses lay, will suit the developing musician in good stead. It is important that students learn to approach their deficiencies and limitations when aware of them—not to ignore them and wish them away, but rather to cultivate the courage to not be afraid of themselves. Said differently: "... practicing ... means you're willing to subject yourself to self-scrutiny of the highest order."^{50(p82)} Staying present with the reality of one's situation, with a nonjudgmental gaze—even when that means admitting where one is musically underdeveloped—helps to channel one's energy toward growth rather than expending it on procrastination, avoidance (e.g., the example above), and a compromised stasis.

It is important to emphasize how mindfulness can help to separate out helpful components of "judgment"—objectively assessing one's ability and proficiency from those that hinder progress, the "judgmental components of judgment." The critical distinction being that the latter is cen-

tered around self-referential evaluation rather than the task at hand. In other words, it is not important how good or bad I think I am (more subjective), but rather whether a piece can be performed as the composer intended it (more objective).

Mindful Development and Musical Growth

A common experience young musicians have is one day finding that they are able to play high, or loud, or fast, and thinking, "I've got it!" At these critical moments, it is important to emphasize to developing musicians that one rarely "has" what one "has" as musicians. The lessons of mindfulness meditation are instructive here. Thinking that one now and forever will possess a skill without ongoing practice is as ephemeral a pursuit as clinging to thoughts. In the moment, thoughts feel solid and real; seconds later, they are gone. Musical success in the present is as much attributable to past practice as any action happening in the present. It is deliberate past practice⁵¹ which creates the conditions such that current technique and state of mind can express itself in the present. What one has as a musician only exists to the degree that the practice that allowed for its expression is cultivated and perpetuated.

Musical Flow

When a musician's mind and body are synchronized in the service of music-making, it is not uncommon for them to experience flow states.^{5,52} Elements of flow include: 1) concentration focused and grounded in the present moment; 2) the merging of action and awareness; 3) a loss of reflective self-consciousness (e.g., self evaluation); 4) a sense that one can, in principle, deal with whatever arises in a given situation because one's "practice" has become a form of implicit embodied knowledge; 5) one's subjective experience of time is altered such that the "present" is continuously unfolding; and 6) an experience of the activity as intrinsically rewarding.⁵² With the use of mindfulness meditation as a lens to better understand the practice of music-making (as described in the sections above), a musician not only learns to practice honestly and efficiently, but importantly, progressively improves their capacity for sustained attention by letting go of self-consciousness and judgment. From a neurobiological standpoint, similar to meditation, this increased capacity of letting go may involve relative deactivation default mode brain regions such as the posterior cingulate cortex. Importantly, these regions appear to be overly active when "getting caught up" in experience, which includes not only self-criticism but anticipation ("here comes that hard part") and even excitement ("wow, I'm nailing it!"), which may help to explain how we can pull ourselves out of performances that are otherwise going well.⁵³

Over time as a piece of music is practiced in such a manner, to the point where one knows it "in their bones," a performer's mind is freed from having to monitor the

cognitive and physical aspects of music-making. Critical self-monitoring is experienced as temporarily suspended, literally and figuratively freeing the performer to revel in the expressive and improvisatory aspects of performance—to flow with the musical experience.⁶

CONCLUSION

Any human action can be performed as mindfulness meditation; it just depends on how one applies their mind to that given task.⁷ It has been proposed that mindfulness meditation is a formalized de-specialization of the infinite number of other activities that people can achieve mindfulness in, which has particular relevance to the phenomenology of music-making.

Psychologically speaking, teaching and practicing from this perspective quickly reveals the degree to which a musician has engaged with him or herself as an embodied person. Have they engaged with their fear so as to be able to see the areas in their practice that need improvement? Are they able to emote? Are they able to experience joy? Are they comfortable in their body?

In reconceptualizing music-making not only as a musical practice, but also a meditative one, the ability to attune to the full range of one's experience—one's emotions, successes and failures, limitations and strengths—can lead to a greater understanding of not only oneself but, paradoxically, an experience beyond the constructed confines of habitual self consciousness.⁵⁴ Musicians who are able to cultivate an evolving relationship with themselves that is not dependent upon external causes or conditions—praises or criticisms—offer a vision of musical practice that can progressively lead to performances that not only transform themselves but their listeners as well.

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