

## Why Improvisation Should Be Part of Every Young Musician's Training

### Description

Much is often made of the Suzuki method as being a system of learning that fails to nurture creativity.

I don't know if this was part of Dr. Suzuki's original philosophy, or if I had liberal Suzuki teachers, or just a forward-thinking mom, but I actually remember being asked to do a lot of free improvisation as a Suzuki kid.

Almost on a daily basis, I'd have to pick up the violin and create something from scratch. It was as much a part of my practice routine as scales.

It actually came in handy on at least a few occasions, when I experienced a memory slip and desperately improvised my butt off until I could find my way back to something familiar.

But aside from handling memory slips more gracefully in performance, what is the practical use of improvisation skills and training in classical music? After all, it's not like we are going to start extemporaneously composing our own spinoff version of a Beethoven sonata in the middle of a performance.

Is it really worth our time and effort?

### Your brain on improv

Researchers Charles Limb (an otolaryngologist at Johns Hopkins and faculty member at Peabody) and Allen Braun were curious to learn more about what is happening in the brain when engaged in a highly creative activity like improvisation.

So they took six jazz pianists, stuck them in an fMRI scanner (which measures changes in blood flow to different parts of the brain), and had them alternately play passages from memory and improvise to see if there was a difference in neural activity.

In one scenario, they had the pianists play a one-octave C major scale up and down in quarter notes (control condition). Then they asked the pianists to improvise on the scale – though restricted them to only those notes in the one-octave C major scale, and quarter note values here as well (improv condition).

Control condition audio sample (scale):

[https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio\\_S1.mp3](https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio_S1.mp3)

Improv condition audio sample (scale):

[https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio\\_S2.mp3](https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio_S2.mp3)

Of course, improvising on a one-octave scale in quarter notes is not the most sophisticated improvisatory activity, so they also tested the pianists in a more musically complex scenario.

In the more advanced scenario, they asked the pianists to play a melody from memory to the accompaniment of a jazz quartet in the background (control condition). Then the pianists were asked to freely improvise their own melody with the same jazz quartet recording playing in the background (improv condition).

Control condition audio sample (jazz):

[https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio\\_S3.mp3](https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio_S3.mp3)

Improv condition audio sample (jazz):

[https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio\\_S4.mp3](https://bulletproofmusician.com/wp-content/uploads/2014/09/Audio_S4.mp3)

## What does creativity look like?

So what did they find?

For one, there was a distinctive pattern of both activations and *de*activations in certain parts of the brain that occurred during improvisation and playing from memory. What's cool, is that these patterns were essentially the reciprocal of each other. Meaning, the areas of the brain that were activated during improvisation were deactivated during the play-from-memory condition, and vice versa.

Specifically, a region of the top front part of the brain which is thought to be involved in problem-solving and conscious monitoring of our performance (dorsolateral prefrontal cortex) quiets down during improvisation. Meanwhile, a central region in the very front-most part of the brain (medial prefrontal cortex) which seems to play a key role in self-expression and making up a story or describing a memory becomes more active.

What does this all mean?

Taken together, it seems that deactivating the self-monitoring, evaluating part of our brain frees us up to be more creative and allows us to spontaneously produce unplanned, novel musical ideas and gestures which might otherwise be inhibited.

Indeed, there are some [recent studies](#) which take this a step further and suggest that musicians who are trained in improvisation might be more capable of unleashing their creativity in general, as compared to

musicians who have less experience with improvisation or non-musicians (at least on measures of divergent thinking).

## The consequences of an active self-monitor

In addition, [we know from research on athletes](#), that self-monitoring a well-learned motor skill that usually operates on “muscle memory” often results in choking under pressure.

I might be stretching things a bit, but given this and the jazz study findings, it may be that having the ability to “switch off” our brain’s self-monitor could be helpful in performing more freely and accurately in music performance contexts as well.

## Simple improv is still improv

Another interesting takeaway, is that this pattern of activation/deactivation was true across both the simple improvisation task (scales), and the complex task (jazz).

So perhaps we don’t have to freak out and be intimidated by the word “improvisation.” It sounds like even practicing improvisation on a very simple, basic level has value, and that the key thing is to simply get started.

## Take action

Just try it. Take a moment after warming up to do some free improv. Pick a theme, and make up some variations. Riff off a scale. Play around with ornamentations.

At some point of course, you’ll want to practice improvisation in a more structured, systematic way, because improvising well is a skill that takes practice.

To that end, what exercises, books, or online resources have you found most helpful in developing your improvisation skills?

## Additional reading (and watching)

Pianist [Robert Levin has been championing the practice of improvisation](#) in classical music for many years.

He argues that the recording industry has had an influence on performance practice that makes for high-quality, reliable, “standardized” versions of our repertoire – but at a great cost: [Robert Levin excerpt from “On the Edge” \(video\)](#)

This is a longer and more academic-y lecture, but it's a cool glimpse inside Mozart's head, where you see what he was thinking and expecting from performers of his music: [Robert Levin on Improvising Mozart \(video\)](#)

Dr. Charles Limb @TED – [Your Brain on Improv \(video\)](#)

## The one-sentence summary

Don't try to create and analyze at the same time. They're different processes. ~Sister Corita Kent

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