Learning to Rock

*It’s never too late to live out your rock ‘n’ roll fantasy.* By David Berreby

For many of us, the guitars in our dreams of rocking out were made only of air, and always will be. For some others, the six-stringed instruments are real enough, but dusty from years of neglect. Their time was long ago — in adolescence or early adulthood, that “unformed posturing phase of life,” as the novelist Jonathan Lethem said of his own youthful adventures in a band.

But for a few, musical hope never dies. When they inherit an old instrument from someone’s attic or luck into some free time, these people try, against all expectations, to become true players. Often, they start out indirectly and apologetically. (“Guitar lessons for a middle-aged fool?” was the title of a recent post seeking help on a listserv for Massachusetts gun fanciers.) Even those who acquire some skills remain apologetic; the writer Dave Barry, a member of the writer-only band Rock Bottom Remainders, used to say their genre was “hard-listening music.” Most drop away, convinced that you need to start as a kid to master guitar, bass or drums.

They’re wrong. Despite what you’re bound to hear, there’s nothing about being in your fourth, fifth, sixth or seventh decade of life that prevents you from mastering an instrument.

Consider the tale of Gary Marcus, a developmental psychologist at New York University. Marcus had childhood memories that many non-musical high achievers might recognize: lessons that didn’t get far, traumatic experiences on stage with other children, and before long a habit of avoiding karaoke and even lip-syncing “Happy Birthday” at parties. By his 30’s, Marcus had made a name for himself as a researcher on how children acquire language and other profound questions about the human mind. He was the author of three respected books and scores of important papers. So what if, when he wanted to satisfy his passion for music, his chosen instrument was the CD player? Life was fine. Sometimes he noodled around with the video game Guitar Hero.

But a funny thing happened on the plastic game controller. The experience of mastering a few challenges in Guitar Hero left Marcus wondering if he might be able to play an actual guitar.

Of course, he shared the widespread notion that he might be entirely too old. A look at research by his fellow scientists, though, revealed that the
evidence for this popular belief wasn’t strong at all. In fact, much of what we believe about the skills that must be learned young is extrapolated from work on animals. For example, a study of barn owls found that young birds were better at learning a crucial skill — linking their very wide visual fields with information coming through their ears. The researcher, Eric Knudsen, distorted young owls’ vision with prisms and discovered that they had little trouble learning to compensate. But older owls could not. Scientific research on learning music in adulthood, though, was scarce — not that many adults have the determination to commit time and effort.

Marcus, who had a sabbatical leave coming up, realized that his revived musical dreams and professional interest in the mind could be combined. He could be his own guinea pig. He decided “to see what would happen if I personally devoted myself to music, full-time 24/7 for a month or two — or as long as I could stand.”

The “month or two” turned into many months, and then into a commitment that changed Marcus’s life — as he recounts in his most recent book. It, like his others, is about the mind and its capacities, but this one is about his personal journey in music. The book, “Guitar Zero,” describes how, in a couple of years, Marcus went from staying silent during “Happy Birthday” to playing a respectable jazz guitar.

How did he do it? By defining the emotional, physical and cognitive challenges clearly, and applying what is known about music and human nature to them. That, combined with another important form of knowledge — self-awareness — did the trick.

Crowd Funding for Artists

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Here are the essential components of mastering the guitar — or any other instrument — long past the age when many friends and colleagues would have thought you were too old:

**ONE**

**Understand the mission.**

Any complex activity — tennis, a new language, blues guitar — looks incomprehensibly elaborate at first. This is because, seen “from the outside,” all the component parts of the activity appear as isolated bits of information. We don’t see how they relate to one another or how they combine to make larger units of meaning. To my 2-year-old son, who is only beginning to learn about reading, all letters look alike. When they swarm in front of him on the page, he simply sees shapes, some of which look familiar. He doesn’t know the rules that tell him how to see a chain of letters as a word. With training and practice, though, he will teach himself to see words, and sentences, and paragraphs, where once he saw only shapes and white spaces. Someday, when he comes across the word “wildcat,” he’ll instantly think of it as a combination of “wild” and “cat” and have an idea of what it means. Now, seeing it only as a “w,” followed by an “i,” followed by (um, is that a “d?”) followed by a “c,” and so on, he would have a much harder time perceiving and remembering the meaning.

So too a music learner goes from thinking of isolated units (A-sharp, the F string, the C chord) to thinking of bigger structures (the F scale, the blues progression). This is why it’s important to work hard on less-than-exciting subjects like scales and chords. “As the guitarist acquires a vocabulary of riffs and scales,” Marcus writes in his book, “everything new becomes easier to remember in relation to the old.” Perceiving the higher-level units, and knowing where to look for them, is a major part of learning a skill.

Becoming a musician, Marcus writes, means calibrating at least four distinct sets of representations. These are the notes the musician hears, the notes the musician wants to play, the location of those notes on the instrument and the physical actions that the fingers must perform to produce those notes. (If the player can read music, integrating those symbols on the page becomes a fifth layer of representations to coordinate.)

**TWO**

**Take small steps.**

One crucial move at the root of successful music-learning is to break the seemingly impossible task (learn to play this instrument fluently) into smaller, achievable steps (get this chord change right). Even as your mind expands to see bigger musical structures, your fingers still need to take the task of producing music one step at a time. It’s great to be able to read whole words instead of just sounding out letters, after all, but to write those words you still have to learn to dot the i’s and cross the t’s, producing one letter after another.

This is good advice for students of any age learning any skill, of course, but it may be especially important later in life. Remember those owls that couldn’t learn to cope with a big distortion in their visual field? Knudsen discovered that older owls could learn to deal with the challenge. They just needed to do it in smaller leaps. As Marcus recounts in his book, an infant barn owl would adjust to a visual field that was 23 degrees out of whack, which adults could not do. But if the challenge was broken down into a series of smaller tasks (6 degrees now, 11 degrees more in a few weeks), the adults could eventually master the same change. So adults need to “take things bit by bit, adult-owl style,” Marcus suggests.

**THREE**

**Find the right teacher.**

Not the most prestigious. Not the most expensive. Certainly not the most intimidating. Find, instead, the teacher who works for you — who makes you happy to get ready for a lesson and is encouraging enough to keep you coming back but critical enough to keep you moving forward. Such teachers are crucial in many musicians’ life stories. The right teacher, as the classical pianist Jeremy Denk writes, will make the connection between learning to form each letter and learning to perceive the words and sentences of music. It’s the teacher’s job, he writes, to “bridge the gap between boring technical detail and the mysteries of the universe.”

Forget memories of scary instructors from childhood demanding to know if you’ve practiced scales over and over. Whatever you may think about such methods, what intimidates a child will just annoy an adult and put you off your goal. And, anyway, if you’re a 46-year-old CIO you probably don’t have parents hovering over you on Tuesday nights, telling you you’d better practice or else no dessert. Adults need a different approach.

Since you don’t have parents, you might consider the site stickK.com, where you can publicly commit to your goal of mastering your instrument. If you fail to meet your goal, you commit to
do something concrete and disagreeable — for instance, give money to a political party or a cause that you detest. The combination of unpleasant consequences and the prospect of friends knowing you’ve failed has proven to be a powerful motivator for people to quit smoking, lose weight — and learn to play music. As did user “hotgrue4u” in 2011, when he or she committed to “play saxophone or bass or possibly another instrument for at least 30 minutes a day, 4 days a week.” Hotgrue4u pledged $600 to the struggle and lost $40 for one week when the commitment wasn’t met. (The money went to the “anti-charity” of hotgrue4u’s choice, a conservative think tank.)

**FOUR**

Build the skills.

The next key point is as obvious as the ancient joke about how to get to Carnegie Hall: “Practice, practice, practice.” To many, of course, practice conjures images or memories of dreary forced marches across keyboards and fretboards. But there’s no hope of progress without practice, “the daily rite of discovery that is how learning really happens,” as Denk has put it. Marcus says a fundamental key to his success was to practice every day, even if only for 20 minutes and even if only on a small, packable travel guitar, in a hotel room before a talk or meeting.

It’s important, then, to learn to think of practice as rewarding, if not fun. David Mead, author the well-regarded do-it-yourself book “Crash Course: Acoustic Guitar,” suggests that learners think of practice as a building project. You are, he writes, building your musicianship, like a hobbyist building a boat out of matchsticks. You don’t glue the bits of wood, over and over, for the sake of gluing — you do it to get a model that you’ve created. Similarly, Mead writes, you don’t practice to practice. You practice to build skills, step by step, that you’ll be proud of. Your product is musicianship, and practice is the workbench where you build it.

All teachers admit, of course, that the goal can be lost to view in the drudgery of doing an exercise over and over. To prevent that, try comparing your musical project to other things you’ve mastered and enjoy doing. Many of these activities involve a lot of the same motion or action (golf swings or paint strokes or power-ups at the same point in Level 6). But they don’t often involve repeating something exactly over and over for hours on end. Vary the practice routine. Marcus, for example, needed to spend many hours working on rhythm. Rather than doing the same thing at every practice, he might work one day with a metronome, another with a drum machine and another with a rhythm track. “The variation,” he writes, “got my brain’s dopamine flowing, eliciting the sorts of psychological rewards that kept me motivated.”

Thinking about all this work ahead might seem discouraging, but it’s important to develop a healthy respect for the difficulty of the task. For one thing, that will remind you to, as the playwright Frank McGuinness once put it, have mercy on yourself. Don’t be distressed that you’re going slowly. “Slow” is the only speed available. Accepting that fact helped Marcus start on his long march toward musicianship. As he wrote: “I might not have talent, and I might be old, but I was willing to take it slow.” Anything else isn’t realistic, and what is unrealistic is never accomplished.