CHAPTER 3

The Six Myths of Instrumental Music Practice: Evaluation and Update

ost of us have been taught a few general ideas to guide our practice. I call them the Six Myths of Practicing. They are myths in that they tell a simple story about a complex activity.

Myth 1 Practice every day, even when you don't feel like it.

Myth 2 Continue to practice even when you are frustrated; eventually it will pay off.

Myth 3 Practice slowly.

Myth 4 Repeat a lot.

Myth 5 Use the metronome to improve your rhythm.

Myth 6 Isolate parts to improve them.

While these myths contain some truth, taking them literally or applying them inappropriately can be counterproductive. The advice they offer is too sketchy to deal with the complex decision-making process involved in effective music practice. Informed by this advice, most musicians waste an enormous amount of their practice time and often hurt themselves psychologically and physically in the process, because they fail more often than they succeed.

It is not obvious why these myths have served as the primary practice guide for all instrumentalists for many centuries, as they are less than adequate. Though I cannot explain why these myths have endured, I can say with great certainty that when musicians get together to scrutinize their practice habits and experiment with new ways of practicing, they are capable of extraordinary change and transformation.* Practicing can become a continuously rewarding and meaningful

activity instead of a frustrating chore, thereby enabling musicians to conquer technical goliaths and achieve great artistry.

We will begin by looking at and answering some of the questions prompted by these myths.

Myth I: Practice every day, even when you don't feel like it.

Though there is some truth to this direction, it is equally true that extreme regularity is numbing. It is also true that all of us are susceptible to the vagaries of living: illness, dental problems, feeling tired, and so on. Sometimes when we don't feel like practicing, there may be good reason not to. Therefore, if you hold to such an uncompromising idea, you might not be able to achieve your goal and you will develop a sense of inadequacy and poor self-esteem as a result.

Question: Can I ever take a day off? How do I decide? Should I wait until I'm totally disgusted before I take a day off?

Answer: All training regimens to develop skills, whether athletic or mental, include rest as an important feature of a consistent schedule. Recent experiments show that less than 8 hours of sleep each day interferes profoundly with skill development.† "Rest to refresh," then, is an important training guide. You need to rest between intervals of work during a day. And you need to rest after a number of consecutive days of work.

It is important, therefore, to plan a day off from practice each week. Do not determine your day of rest by the degree of despair or frustration you are feeling. If you wait until you are discouraged, you

^{*}For the past 19 years, I have conducted Practice Marathon Retreats for musicians at Magic Mountain Music Farm in upper New York State. In daily workshops and in private lessons, we have examined music practice and experimented with improving practice strategies and attitudes. This guide is a systematization of the information accumulated in those workshops. It enables any musician who is ready to change to take a giant step forward in practice effectiveness.

†Walker, Brakefield, Seidman, et al., "Sleep and the Time Course of Motor Skill Learning," 2003.

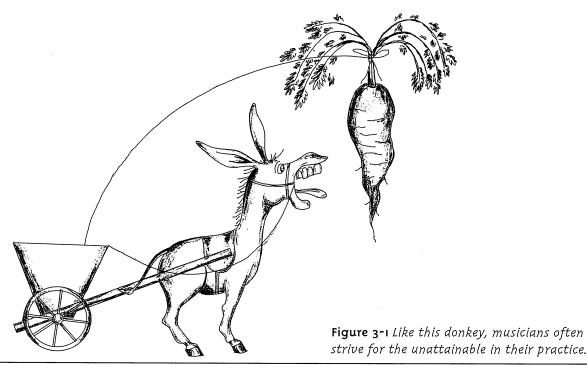
may have waited too long and you will probably need more than a day to recover. If you have been conditioned to believe that it is wrong to take a day off, you may feel guilty when you actually try it. Give it a try, however, and evaluate the results from the reality of your experience—and don't just try it one time. Take one day off per week for a month or two before you decide if it is of value to you.

Myth 2: Continue to practice even when you are frustrated; eventually it will pay off.

Should Sisyphus continue pushing the stone up the hill in the hope of making it to the summit, even though each of the last 10,000 times he neared the top, the stone rolled back down? It is obvious that the idea of "eventually" can reach the point of absurdity. Too many musicians have learned to tolerate that world of absurdity when they practice. Is it any wonder that despair creeps into our psyches when we face practice challenges?

Question: Is there a threshold of frustration beyond which I should not continue? Sometimes I feel like throwing my instrument out the window; is it useful to continue to practice even under those circumstances? Answer: Frustration is caused by unfulfilled expectations. We have all been taught that we must learn to tolerate some degree of frustration in order to progress. That may well be a necessary condition of life. In the practice room, however, you can learn to respond to frustration by adjusting your expectations to what is possible. Until you have achieved an improvement, you have not improved. There is no way to accurately predict how long the effort to improve will take. Frustration, then, is a signal to which you should respond long before you reach your boiling point. In fact, as frustration increases, concentration diminishes. For an indepth discussion of controlling concentration, see "The Technique of Success at Any Cost: Setting an Achievable Goal and Finding a Strategy to Reach It" (Chapter 5, p. 35).

I have found that the most common cause of frustration in the practice room is the tendency of musicians to try today to improve each phrase to perfection. The donkey in Figure 3-1 is striving toward a carrot that is always out of reach. Also notice that the carrot is too big to get his mouth around (he wants to bite off more than he can chew). This picture illustrates the musician who tries to reach perfection each day in spite of the daily evidence that improvement is a gradual process and perfection is unattainable.



Myth 3: Practice slowly.

Question: How do I know how slowly to play to improve?

Answer: You do not need a teacher to tell you how slowly to play to improve. There are internal signs you can easily identify to help you determine that tempo. The tempo you choose must fulfill all three of the following criteria: first, you should experience physical ease; second, you should feel calm; and third, you should be able to experience the notes as a musical pattern in slow motion.

Question: Is it possible to practice too slowly?

Answer: Yes! If you find that you are paying attention to each note separately instead of connecting them into a larger, musically meaningful pattern, you are playing too slowly. However, if for some reason you are compelled to play so slowly that it is either very difficult or impossible to experience a larger musical pattern, try the Note-Repetition Strategy (Chapter 12, p. 81). It will enable you to experience the pattern in spite of the slowness of the tempo.

Question: If I have practiced slowly, how do I know when to play at a tempo closer to the final tempo?

Answer: If you have practiced slowly for 2 or 3 days, and if you can maintain a steady pulse as you play without stopping or hesitating, then you are ready to play a little faster. The important judgment you must make is how much faster is "a little" faster?

Musicians often jump abruptly from their slow practice tempo to the final tempo. This is usually a mistake. In the excitement of experiencing the piece up to tempo, musicians gloss over errors while body tension and mental agitation increase.

To build your tempo from slow motion to performance tempo, first identify on the metronome the *current* tempo at which you have control. Write the tempo down. Be uncompromisingly honest in holding to a high standard of control at this slow tempo; you should feel calm and in command and meet all your expectations as to accuracy, beauty, and refinement. Then decide the metronome marking that corresponds to your final perform-

ance tempo and write that tempo down. As a general rule, divide the time between your "in control" tempo and your final performance tempo into four equal parts. Practice at each of those tempos as if they are steps on a ladder to approach the final performance tempo. Most musicians find it difficult to remember their practice tempos precisely from day to day. Always write down the tempos you practiced today, so you will be able to objectively evaluate your progress tomorrow.

Question: How important is it to practice musically when I practice slowly?

Answer: You can save yourself a lot of time and heartache if you practice musically when you practice slowly, with or without the metronome. The coordinative timing of your body to express notes timed perfectly to the metronome beat is not the same as the timing that occurs when you play to inflect musically meaningful gestures. There is a subtle but significant difference. When you express a musical idea, you create a rhythmic effect that has the power to move your audience. When you measure all your notes precisely with a metronome, you create a mechanical effect that lacks the power to communicate musical feeling. Mechanical timing and rhythmic timing are not the same (for an illustration, see under "Myth 5" later in the chapter). If you train your body movements to be mechanically in time without playing expressively, you will likely notice that your wellpracticed coordination becomes unstable when you add musicality to the mix. If you train your body movements to express musical gestures from the start, you will not have to learn a different coordination later.

But beware: Playing expressively also has its pitfalls! When your primary purpose is to improve coordination, it is best to play with only 25% or 50% of your available emotional intensity. If you play with 100% emotional intensity before the improved coordination is stabilized, the excitement will cause your muscles to overwork. By modulating your emotional intensity without completely turning it off, your coordination will stabilize in the context of the rhythm of the final musical product and your muscular effort will not become distorted.

Myth 4: Repeat a lot.

Everyone seems to know that you must repeat a lot when you practice a musical instrument. In fact, in the nineteenth century, a word was used to refer to repetition during music practicing: "palinoia." It meant "to repeat over and over to perfect, as in practicing a musical instrument." This is not to be confused with paranoia, although excessive repetition could stem from fear or some pathological condition. When repetition is used as a tool rather than a panacea, it is meaningful and, at times, even pleasurable. The basic guidelines for useful and meaningful repetition follow.*

When Is Repetition Appropriate?

Question: How do I know when I should begin repeating?

Answer: There are five reasons to repeat when you practice:

- 1. Repeat to observe what is incorrect. If you were a painter, you might observe your painting for 5 or 10 minutes to determine what it needs to make it more correct or complete. As a musician, you have only an instant of time in which to determine the excellence of what you are hearing. Therefore, you must repeat the passage to further observe your work until you are certain of your perception and you can clearly articulate your observation. After one play-through, you may recognize that there was a flaw in what you heard, but you may not be able to pinpoint or determine what was the matter. So you play it again and yet again, until you are clear about what must be improved. For example, if you notice that a note is out of tune, you can only set a meaningful goal if (a) you know which note is out of tune; (b) you know whether the note is too sharp or too flat; and preferably, (c) you know the degree of sharpness or flatness.
- 2. Repeat to get progressively closer to your final goal. Once you have clarified what needs improvement, you need strategies to enable you to improve until you have formed the desired

- result. This involves a three-step repetition: (1) imagine an improvement in a passage; (2) repeat the passage trying to achieve the improvement; (3) observe the result to determine if the improvement occurred. In item 1 (Repeat to observe what is incorrect), you would aim higher if the note was too flat and lower if the note was too sharp until you consistently decreased the range of error or until you achieved at least one success. This process of making successive approximations toward a goal is colloquially described as trial-and-error learning.
- 3. Repeat to lock in your recent success. In other words, repeat to develop a confident memory of an improvement. Your aim is to change the quality of control from requiring significant concentration to feeling automatic, as if your body is doing it for you. Therefore, when you repeat for this purpose, it is important that you only repeat a section that you would categorize as successful or improved. If, instead, you repeat a section that does not reflect the quality you want, you will create what I call "a perfect mistake." Whatever you play repeatedly during a period of 4 or 5 days will become an automatic, habituated part of your long-term memory, whether or not it is what you desire.
- 4. Repeat an entire work to determine its readiness for a performance. Test your ability to play through at a performance level on one try. See the "Technique of the First Try: Testing Performance Control" (Chapter 5, p. 43).
- 5. Repeat to maintain control of a work that is performance-ready. In order to maintain control of a work in which you have made a significant investment, repeat it at least once each day to maintain your current level of preparedness. When you return to it tomorrow or several days later, you will still have control.

Unfortunately, not all musicians make these five distinctions. Instead, they repeat spots, phrases, and sections in a palinoic manner, ad nauseam. This becomes a self-defeating experience, and does

^{*}Dr. K. Anders Ericsson, University of Florida, has written extensively on repetition in music practice. One article of interest is K.A. Ericsson and N. Charness, "Expert Performance: Its Structure and Acquisition," American Psychologist, 1994, 49(8):725–747.

not lead to reliable control. Should control accidentally occur—and that does occasionally happen—the practicer has no way of knowing exactly which of the things he did created the desirable result. The next time a similar problem crops up, he must go through the same vague process with no guarantee of finding the solution.

When Is Repetition Inappropriate?

Question: Is it possible to repeat too much? What if, after 20 repetitions, I still play with little consistency or success?

Answer: Yes! It is possible to repeat too much. In general, you should know that if you have a very low percentage of success, such as 1 success in 15 tries, it means that your goal is too difficult (i.e., you are biting off more than you can chew). Revise your goal until you succeed with fewer repetitions.

In order to understand the useful limits of repetition in greater detail, turn now to "The Technique of Success at Any Cost: Setting an Achievable Goal and Finding a Strategy to Reach It" (Chapter 5, p. 35), "The Technique of Intimacy: Stabilizing the New Success" (Chapter 5, p. 39), and "The Rule of Impatience" (Chapter 6, p. 49).

Question: Should I repeat small groups of notes as many times as I repeat large sections?

Answer: Keep in mind that the phrase is the smallest meaningful unit of work. That does not mean that you should not isolate small musical gestures within a phrase to polish them, but you should isolate the small groups in order to increase the effectiveness of the expression of an entire phrase. If you increase your control of the small group without concern for how it integrates into the entire phrase, it is likely that the small group will create "lumps" or hesitations or simply break down when you play through the whole phrase in context.

When you isolate a small group of notes from a phrase to improve them, set a goal to repeat the improved version three times in a row. That is, if you have succeeded twice and you fail on the third try, you start again from zero. As soon as you have achieved three successes in a row, *immediately* try to integrate the improved small group back into the larger phrase.

Myth 5: Use the metronome to improve your rhythm.

Though music is an expression of emotion in sound, the emotion must be regulated by measuring it within a precisely timed beat. It seems paradoxical to time our emotional outpouring objectively. In life, when you express yourself, the timing or rhythm of your emotional expression varies with how you feel at the moment. The actual length of time you take to express yourself varies according to your circumstance and need, and it is not usually preplanned. In music, on the other hand, we must be prepared in advance to express specific feelings at particular moments in time and for particular amounts of time, as indicated in the score.

When emotion and time are exquisitely joined together in music, they cause a compelling rhythmic feeling in both the player and the listener. Many people think—incorrectly—that the musician who can play exactly in time to a metronomic pulse creates musical rhythm. But metronomic timing and rhythmic timing are not the same. When emotion expressed in sound is constrained within the "jail" of the metronomic beat, a subtle yet significant variation in timing occurs. It is like a war between the regulation of the metronomic beat and the abandon and expansiveness of the emotion. The result is what we refer to as rhythmic timing, in contrast to mechanical timing. Rhythm compels an audience to listen and want more; mechanical timing causes an audience to feel bored.

This idea of the seeming regularity of rhythm as contrasted with the absolute precision of the metronomic beat is not yet widely acknowledged in music pedagogy. I have tried to clarify it because I believe it helps the musician to understand when to use the metronome, and how to use it effectively. Figures 3–2 and 3–3 illustrate this point.

Question: How do I know when to use the metronome?

Answer: You need to use a metronome to guide your practice until you can play the part in time without it The downside of using a metronome is that musicians often sound more metronomic than musical when using one. This reveals a significant problem. The metronome measures objective time.



Figure 3-2 Mozart wrote this music. Source: Mozart, Sonata for Piano in C Major, K545, Movement 1.



Figure 3-3 When an expert planist played the music in Figure 3-2, it sounded like this.

On the other hand, successful communication of musical expression requires that the musician interweave his emotional sensibility with his mathematically precise sense of time. When you stop using the metronome, your emotionality is more easily available to you, but it may make you lose control of the objective regularity of the beat. The aim of playing effectively with the metronome is to find a way to coordinate these two aspects, the objective and the subjective.

When you have one of the experiences listed below, you need to use a metronome as a tool to increase your control of objective musical timing:

- When you are playing at a slower tempo than the final tempo and you find or are told that you are dragging or rushing, use the metronome as a guide.
- When you have a tendency to rush any part of a work, use the metronome as a guide.

 When you want to figure out how to include the passion you feel in a certain part without altering the regularity of the beat, use the metronome as a guide.

There is a simple strategy you can use to determine whether or not you need to use the metronome. Record yourself playing without using the metronome: When you listen to the replay, turn on the metronome to find out how closely the recorded beat and the metronome beat coincide. In most instances, if you observe that you lose a beat or more within a phrase, then you should use the metronome until the same test shows that you are playing within the boundary of the metronomic beat.

Question: Is it a good strategy to start very slowly and increase the tempo one notch at a time?

Answer: This timeworn strategy is quite inefficient. When you proceed one notch at a time,

the difference in difficulty is usually trivial. In order to experience a meaningful challenge and use your time efficiently, follow the guidelines shown in "The Basic Metronome Strategy" (Chapter 9, p. 66).

Myth 6: Isolate parts to improve them.

Musicians are easily overwhelmed by the number of details contained in just one phrase of music. Therefore, it is natural to reduce the number of details in order to pay greater attention to a few. However, as was the case with Myths 1 through 5, several questions present themselves to the musician who is trying to pursue this strategy of isolation.

Question: How do I decide what aspect of the music to work on?

Answer: At any given time during your practice, you will perceive many details to fix. There will likely be several aspects of the music or your playing that you could address. It is important that you do not make arbitrary choices as to what you work on. Instead, look for the patterns of error in what you hear. First, decide which of the following "categories" is weakest in your product: intonation, tone, rhythm, or expression. Always start by improving the weakest category first. (For a detailed description of this strategy, see "The Technique of Observation," Chapter 5, p. 29). Incidentally, when you work in this way, some of the other problems you perceive will resolve themselves without your directly addressing them.

Question: What criteria should I use to decide how small a section of the music to isolate?

Answer: The number of notes or size of the musical gesture you isolate should be related to the difficulty of improving them, as follows: Taking 30 minutes to stabilize the pitch of two notes is too inefficient to be useful. Therefore, one criterion is that it should not take more than 5 minutes to improve a small section or group of notes. If it does, make the goal less demanding.

Another criterion to consider is the limitations of your current knowledge and ability to achieve a particular level of quality. In your effort to make an improvement, you have a choice between two kinds of practice: (1) Practice to increase your sen-

sitivity so that you can achieve a new level of precision, or (2) use your already available sensitivity to create better musical gestures. To elaborate further:

1. If you do not yet have the pitch sensitivity or the rhythmic sensitivity needed to improve a musical gesture, there is no point in working on the entire musical gesture. In the instance of pitch sensitivity, a string or wind player might first try to increase his sensitivity to the specific notes involved before putting them together to form an entire musical gesture. Now consider, how sensitive is sensitive enough? In a musical context, notes often go by so quickly that if you cannot perceive them accurately within a fiftieth of a second, you cannot expect to be able to control them. Musicians often mistakenly assume that, when they have played the notes in tune a few times slowly, they will be able to play them in tune at any speed, in any context. Such unrealistic expectations often lead to inordinate frustration, poor concentration, and lack of confidence. When you first isolate a note and listen to it long and carefully to determine its accuracy, do not expect that this work alone will be enough to fix your problem when you play the entire phrase at tempo. All instrumentalists must develop an equivalent hypersensitivity in their perception of rhythm and tone, as well as expression.

You must practice until you have developed what is at first a barely perceptible awareness into an extreme sensitivity. When you believe that you have developed such hypersensitivity, put it to the test by playing a whole phrase that demands this awareness. Then stop and ask yourself if you actually heard the improvement. If you cannot tell, then you are not yet sensitive enough. If you are certain of what you have heard, you are ready to integrate the detail into the larger context.

2. When you are using your already available sensitivity to form the phrase, again, it is best to isolate patterns of notes that form musical gestures rather than individual notes or arbitrary groups of notes. To clarify what this means, look at Figure 3-4. Example "a" shows the phrase as written. In example "b," the brackets indicate

the smallest meaningful musical gestures. In example "c," the brackets show sub-units that are not "musical gestures" but are rhythmic sub-groups that must be linked together (as in example "b") in order to be meaningful. Most of the time, if you try to express rhythmic sub-groups rather than musical gestures, your coordination will suffer.

Question: How large a group of notes is too large to isolate?

Answer: Musicians have a tendency to bite off more than they can chew when they practice. The issue is less how large a group is too large than how long it will take to fix what is wrong. There are always time constraints in practicing, and musicians characteristically allow themselves to be guided by unconscious expectations instead of consciously managing their work according to the known time constraints.

It is of great importance to protect yourself from the trap of unreasonable expectations when you practice. A strategy that will help you is to set your goals to *improve* rather than to *perfect*. Aim to *decrease the range of error* rather than to create perfection. If each day you decrease the range of error in any part of your playing, after 10 or 20 days you will most likely have achieved perfection without trying to control it directly. This strategy will lead you to feel pride and confidence in your work. It will protect you from becoming unduly frustrated. For a detailed understanding of decreasing the range of error to solve a problem and a technique to stabilize control of gradual improvements, see "The Technique of Success at Any Cost" and "The Technique of Intimacy" (Chapter 5, pp. 35 and 39).

Question: Why is it that, after I've isolated and perfected several sections out of context, I can't always control them as well in context?

Answer: This is the ultimate dilemma musicians face when they practice. Many have learned to live with this fact of practice life—grin and bear it, so



to speak—because a certain amount of contextual integration eventually occurs. I am happy to report that there is a specific strategy to help you control the integration of work on details into the continuous flow of the music (see "The Isolation-Integration Strategy," Chapter 9, p. 62).

Reviewing the Six Myths of Practicing

The evaluation and update of the six myths of practicing have revealed a lot of information that can help a musician practice more efficiently. So far, the answers to the questions stimulated by the simplistic practice myths that are our heritage lead to saving time, muscular effort, and psychological torment. The references to later parts of the text attest to how much more knowledge is to come. You can look forward to much more improvement in efficiency and pleasure as you apply the strategies illustrated in the rest of this book.

Moving Beyond the Myths

Effective practice is a skill of informed management. Each time you stop because you have just failed (or succeeded!) in achieving a goal, you need to "manage" what to do next. To make appropriate managerial decisions, you need to understand how the human system acquires skill behaviorally, neurologically, and physiologically—how we learn. As you apply the principles for making effective decisions, you will also gain the power to create new ways to reach your goals and experience enhanced motivation to practice. Armed with these answers to the questions raised by the Six Myths of Practicing, you are already better equipped to practice more effectively. These answers, however, are only a beginning; read on! Be assured that, although the process is complex, what you have yet to learn as you deepen your understanding is fascinating and will ultimately lead you to much greater fulfillment as a musician.