

Lynn Maxfield, Associate Editor

Slow Practice: How to Do More Than Just Practice Slowly

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[Associate Editor's Note: I am very happy and more than a little bit humbled to be assuming the role of Associate Editor of this column. I was working on my dissertation at the University of Iowa when Lynn Holding's first articles in this column were published. I was in the process of designing a study that explored how motor learning theory could be applied in the singing studio and her work was the first that I had found that attempted, in any significant way, to translate the flood of new information in cognitive science into meaningful direction for the voice pedagogue. I haunted the circulation desk at the Rita Benton Music Library in anticipation of the next issue being released to the periodicals shelves. I still turn to this column first when every new issue arrives. It is a dream come true to now be entrusted with the opportunity to contribute to the success of "Mindful Voice" as it enters its sophomore phase.]

RECENTLY, I CAME ACROSS A BLOG POST by Dr. Noa Kageyama lauding the benefits of "slow practice" for musicians of all levels of ability.¹ As one might expect, many musicians and teachers who responded to the post praised it, lifting it up as one more piece of "evidence" that they could use when arguing with their students over a metronome setting. Kageyama's post was not, however, without its critics, including a blog response from cellist Miranda Wilson, who claimed that, aside from avoiding the "ingrained wrong note," she failed to see the benefit of slow practice.² This respectful disagreement between two accomplished pedagogues opens a door for a discussion of how practicing slowly, as a pedagogic technique in its own right, fits into the much larger picture of motor skill acquisition in general.

In the context of this discussion, the term "slow practice" is really as straightforward as it sounds: practicing a piece of music, or section of music, at a dramatically slower tempo than that at which it eventually will be performed. Musicians who studied an instrument in addition to singing will undoubtedly be familiar with the technique, while those who have studied only voice may be less familiar. Slow practice just doesn't seem to have been as popular in voice-only studios as it has in instrumental studios. A search of the Music Periodicals Database using the term "slow practice" yielded 201 relevant papers/articles. When the term "voice" was added, results dropped to 37, many of which were actually referring to instrumentalists singing as another pedagogic technique to be used in addition to slow practice. Even more

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dramatic, searching the index of the *Journal of Singing* for the term “slow practice” yielded exactly two results. The first was a 1960 Chapter Note from the Nashville chapter reporting minutes of their latest meeting, in which the guest speaker advocated slowly practicing scales to achieve a “desirable quality of tone in the upper voice.”³ The second was more relevant to this discussion, wherein the author advocated slow practice as a conditioning exercise for sopranos performing demanding roles in Spanish *zarzuela*, though it still stopped short of a ringing endorsement of the practice technique.⁴

If slow practice has, as it appears from the literature, neared ubiquity in instrumental pedagogy, why has it not enjoyed similar popularity in voice studios? One obvious answer is that it is not employed by singers for the same reason it is not as widespread among brass and woodwind players—breath. Musicians relying on breath to power their instruments cannot arbitrarily slow down their music without taking extra breaths, thus altering musical phrasing and, for singers, textual context. Still, armed with a better understanding of how slow practice may influence motor learning, can singers find meaningful use of this tool so cherished by their instrumentalist counterparts?

SLOW PRACTICE AMONG INSTRUMENTALISTS

As mentioned earlier, players of stringed and percussion instruments (particularly pianists) have traditionally been the strongest proponents of slow practice—or at least they are the ones who have published their opinions. Percussionist Tim Heckman opined that “the purpose of slow practice is to put ‘thinking space’ between the notes” and to “allow for awareness of what is being done.”⁵ Strings teacher Tom Heimberg took it a step further.

Slow practice lets you see the notes coming and also aids in playing them free of uncertainty or tension. As the player, you become aware of what you’re doing while you’re doing it. You hear sounds clearly, monitor your actions precisely, and give the moving centers in your brain time to sort out complex patterns of posture, balance, and coordination.⁶

Pianist and organist Maurice Hinson similarly lauded slow practice, adding a very important caveat.

Slow practice has been insisted upon by many famous pedagogues, and its value is well-known. But one cardinal rule must be observed in slow practice: the muscular processes must be the same in slow practice as those used when the piece is played up to tempo.⁷

These examples appear to be a representative sample of the popular (published) opinions regarding slow practice in the instrumental music studio and practice room. The general consensus is that slow practice allows time for the student to be “aware” of the process (attentive is likely a more accurate term than awareness, a distinction that will be further discussed in the following section).

It should be noted, however, that slow practice has long had critics who identified shortfalls of slow practice, primarily that it can hinder musical expression. In 1940, Jacob Kwalwasser, Professor of Music Education at Syracuse University, wrote a scathing critique of slow practice, fuming that “Slow practice is musical distortion, wrenching and twisting musical values into weird forms. It is destructive from the expressive side.”⁸ More recently, music educators from various disciplines have questioned the value of slow practice, likening it to a “syndrome” that wasted time “imprinting false information” and cautioning that slow practitioners risk “losing touch with the music itself.”⁹ And of course Miranda Wilson, who responded to Dr. Kageyama’s blog post, again cautioned that slow practice “doesn’t use the same types of physical movement as fast playing.”¹⁰

SLOW PRACTICE IN RELATION TO MOTOR LEARNING

If the above mention of “awareness” in regard to learning caused a momentary pause for you, then perhaps you are a frequent reader of the “Mindful Voice” column and have recalled that a number of its articles have addressed how singers acquire the motor skills necessary for vocal performance.¹¹ Briefly stated, as with all motor learning, learning to sing is a process that increases the likelihood that, given a set of initial parameters, the desired output will be produced as a result of practice.¹² Put another way, learning occurs when practice or exposure to a task results in relatively long-term, stable shifts in the learner’s ability to perform that task successfully. For trainers and teachers, then, the goal is to aid this process so that those shifts are stabilized as efficiently as possible.

To that end, research indicates that conscious awareness of the learning process may actually hinder the retention of the new skills.¹³ Attention to the process, on the other hand, has been shown to be absolutely essential, though where to direct that attention (internally toward the steps of the process or externally toward the outcome of the process) is still a topic of debate.¹⁴ So, when the instrumental teachers cited above refer to slow practice as allowing time for “awareness,” it appears that what they are really looking for is time for the learner to be “attentive” to the process of learning a new skill.

Recall that, in addition to attention, learning must also be produced as a result of practice (i.e., not a momentary boost in performance ability). The conditions under which practice is conducted have considerable impact on the resultant learning outcomes. In the motor learning domain practice conditions include: the distribution of practice (e.g., massed versus distributed practice); variability of practice (how much variability is there in the input parameters for the task, and how is that variability scheduled); mental practice, part versus whole practice (isolating certain elements of a task or working on the complete task); and the amount of guidance provided during practice. The reader is encouraged to review all of these conditions (see Schmidt and Lee’s text for a comprehensive overview), but for the purpose of discussing slow practice, the last two (part/whole, and guidance) are the most immediately applicable.¹⁵

PART VERSUS WHOLE PRACTICE

It is common in every learning environment to break complex tasks or concepts into smaller, seemingly more manageable elements, then practice those elements in relative isolation. This exercise allows the learner to avoid repeating easier elements as she/he concentrates on more difficult elements. Additionally, focusing on a portion of a task reduces the cognitive load required when the whole task is too complex or difficult to be performed in whole by the learner. The danger, however, is that individual elements of a task can be so far removed from the whole that they essentially become individual tasks and the motor programs being trained are, practically speaking, no longer the same as they would be when the whole task is rebuilt.

Research in kinesiology indicates that one important

consideration that governs whether practicing isolated elements will be beneficial to the whole is whether the isolated elements are eventually to be performed serially or concurrently.¹⁶ Taking a piece of vocal music as an example, one could segment the whole song into serial musical phrases, practicing each independently. Conversely, the song could be segmented into concurrent tasks such as pitch, rhythm, and text. Evidence suggests that breaking up complex tasks into their serial elements can be beneficial to the performance of the whole task. Dividing the task into concurrent elements, however, does not provide the same benefit, apparently preventing the learner from acquiring the ability to coordinate these elements simultaneously.

In this sense, slow practice, appears to be beneficial in that it lends itself most readily to part-practice of serial elements. Furthermore, if the goal of part-practice is to reduce the cognitive load when practicing a complex task, slowing down the task would arguably increase that effect. If however, slow practice for singers requires adding additional breaks in phrasing and/or is practiced without all concurrent elements, any benefit will likely be negated.

GUIDANCE DURING PRACTICE

In the context of a singing studio, it is not a stretch to envision the role of the teacher as a guide, providing instruction, direction, and/or modeling that guides the student singer to the desired outcome. This guidance comes in various forms, but all fall into the motor learning category of augmented feedback.¹⁷ When the learner is a relative novice, that feedback/guidance is quite useful in redirecting the learner away from incorrect strategies to complete the task. However, unless the learner is eventually weaned off the guidance, she/he will develop a reliance on that feedback that will prevent the retention and/or transfer of the new skill.¹⁸ Perhaps, then, another benefit of slow practice is to effectively lower the difficulty of the task in relation to the proficiency of the learner to such a level that he/she does not need guidance or feedback in order to succeed. The learner would then be able to monitor performance and increase the level of difficulty, by systematically increasing the tempo, at her/his own pace, in the model of student-controlled learning.¹⁹

ERRORFUL VERSUS ERRORLESS PRACTICE

As Dr. Bergen summarized in her earlier “Mindful Voice” contribution, errorless practice refers to a technique or environment designed to minimize the number and types of mistakes that learners are allowed to make during their practice.²⁰ Conversely, errorful practice would allow learners to make mistakes as they attempt to complete their task. The rationale for both is quite simple: preventing error eliminates the chance of ingraining incorrect performance, but allowing error encourages the learner to refine her/his performance and facilitates retention of the skill. Which is most advantageous, then? Just as feedback and guidance should be varied according to the ability of the student to perform the task, the freedom to produce errors should be gradually increased as the ratio of task complexity to performer ability decreases.²¹

In this sense, the critics of slow practice have some vindication, as slow practice essentially produces an errorless practice technique. As such, the evidence is that remaining in the slow practice tempo without gradually increasing will inhibit learning of the task. Learners must be encouraged, following the initial slow practice runs, to immediately begin increasing the tempo to a point where they start making a few mistakes.

INTEGRATING SLOW PRACTICE INTO THE SINGING STUDIO

In light of the motor learning underpinnings, there does appear to be evidence in support of a purposeful and thoughtful inclusion of slow practice principles in the modern singing studio. When considering just how to implement this technique into your studio, consider the following.

1. Minimize the impact of breathing on the slow practice run-throughs. In essence, choose musical phrases very carefully, opting for phrases of short enough length that the singer can perform the entire phrase at the slow tempo without additional breathing. If additional breathing must be added, care should be taken to move as quickly as possible to a tempo at which the breaths are no longer needed.

2. Ensure that slow practice includes all concurrent elements of the whole task. Recall that when a whole task is divided into fundamental elements for practice, the benefit lies only in dividing into tasks that are to be performed serially, not concurrently. For example, practicing a patter sequence on text only, then pitches, then text and pitches together, appears to be less beneficial than slowing the sequence down to a tempo at which the learner can perform both together.

3. Encourage attention to learning more than rote repetition. Every teacher has seen life drain from the eyes of the student as the student’s thoughts drift to any number of other personal interests. This tendency must be discouraged as much as possible, for it is this attention that will inform the learner when to increase the tempo, thus altering the ratio of complexity to their ability. By actively monitoring their performance and mindfully altering their practice, singers can keep themselves in the sweet spot between too easy and too difficult.


NOTES

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