

## Bassoon Lessons with Arnold Schwarzenegger, or What I did on my Summer Vacation

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With the completion of spring semester 1997 I was looking forward to several months of reduced university responsibilities. The months of sitting behind a desk had taken their toll. At last, I thought, I could address two pressing issues: 1) take off a few pounds in the mid-section and see if that skeleton of mine could support at least a few more ounces of muscle, and 2) prepare for an autumn recital at West Virginia University and a few other universities in the region. In a flash the thought came to me, "Why not do both at the same time?" The thought of power bassoon lifting had a certain appeal, but I quickly decided that was impractical. After all, where do you hang the weights? Bassoon reed curls did not produce a practical workout either. In general I do more flexing of those arm muscles eating popcorn than bringing a bassoon reed to my mouth. These set backs, however, did not discourage me, for the feeling persisted that there was something to be gained by applying principles gleaned from weight training to bassoon practice.

I was presented with a dilemma, however. Where should I search for counsel that integrated weight lifting and bassoon practice? I tried to picture entering the door to the local gym and asking, "Do you give lessons in weight lifting and bassoon practicing?" No, clearly that would not work. Besides, I am an academician—the advice must be in a book somewhere. Step-by-step I descended to my basement to look over my library. Scanning through the paper back edition of *Grove's Dictionary of Music and Musicians*, fifth edition yielded no results. (That serpentine Bass Clarinet in Plate 12 is quite impressive, however). I looked further in my collection. Hmm... I had forgotten all about that book titled *Fun with Chinese Characters*. I will have to get back to that later. At last my eyes fell upon a book that would end my quest.

My library contains roughly two hundred books, the bulk of which concern music. Fortunately the collection holds one volume with advice on physical fitness in general and weight training in particular: *Arnold's Bodybuilding for Men*, by Arnold Schwarzenegger with Bill Dobbins.<sup>1</sup> I recall purchasing the book years ago, and similar to many of my purchases I mystically hoped that by simply possessing that magic talisman—the book—all the information in it would be imparted to me without effort. Alas in the fifteen years I have owned that

book, I do not appear as superbly fit as the pictures it contains.

In anticipation of sage wisdom I readied myself for the first lesson. I had ample reason to think that these bassoon lessons were going to be out of the ordinary. The book cover noted, "Arnold Schwarzenegger has won more bodybuilding titles that anyone else in the world, including seven Mr. Olympia titles." Clearly I needed to be on my best behavior. With a fully assembled bassoon in my hands, I carefully placed Arnold's book on the music stand next to Hummel's Bassoon Concerto. Here is what I gleaned from my lessons:

### I. The Law of Diminished Rate of Benefit

*Arnold: The whole point of progressive-resistance training is that you have to keep challenging your body as it becomes used to any level of effort. You have to keep giving it more to do. It's just as Alice found out in her journey in Wonderland—sometimes you have to run faster and faster just to stay in the same place.*<sup>2</sup>

Arnold is addressing here what might best be termed the "law of diminished rate of benefit." This law has two corollaries: 1) diminished rate of benefit over time and 2) diminished rate of benefit for increased effort.

Let's illustrate the law of diminished rate of benefit over time. Someone who departs from a sedentary lifestyle by jogging one mile three times a week will notice a rather dramatic increase in stamina, strength, health, etc. In the first months of the exercise regimen progress will generally be quite rapid. I call this the curve of progress (Figure 1). Later on, however, the rate of increase in stamina, strength, health, etc. will decrease until a plateau is reached.

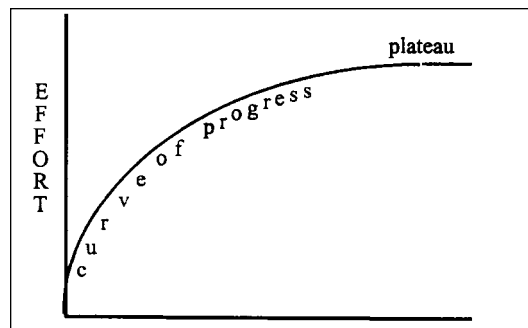


Figure 1. Benefit vs. Effort

Many have also noted that there are diminished rates of benefit for increased effort, which is our second corollary. Someone who doubles the distance per week they jog will notice an increase in stamina etc., but the benefit will not be doubled. Likewise triple the amount of effort will not yield triple the amount of stamina. Despite the increased effort, eventually a plateau will be reached (Figure 1). Such is the human condition: we cannot make infinite progress in any venture.

The two corollaries are well illustrated by the speed of my single tonguing. As a young student I remember difficulty single tonguing long segments of four sixteenth-notes at a metronome marking of 120 to the quarter-note. Through my student days, with consistent practice, my speed gradually increased until it settled at around mm. 132 (which, by the way, is the average speed bassoon performers reported in Apfelstadt and Klimko's survey).<sup>3</sup> No doubt my greatest percentage of increase in tonguing speed occurred in my earliest days as a student. In later years the percentage of increase in my tonguing speed slowed: I reached the plateau for the rate of benefit over time. My single tonguing speed also illustrates the corollary of diminished rate of benefit for increased effort. Now, routinely I can single tongue four sixteenth notes for eight counts at mm. 132 per quarter note. With persistent and concerted effort I can reach mm. 138 per quarter note for the eight counts. But even with double or triple the effort, I am unable to single tongue much faster than mm. 138. This is my plateau for the rate of benefit with increased effort. It is true that I can tongue shorter segments at a faster speed, but for eight counts of sixteenth-notes I have apparently reached my physical limits.

The challenge for athletes and musicians alike is to avoid the plateau and sustain a curve of progress for as long as possible. Arnold has several principles that can directly be applied to bassoon practicing. The ideas below can help prolong the curve of progress.

## II. Sustaining the Curve of Progress

### A. The Basics

*Arnold: As your body changes, you will want to be able to keep careful track of differences of fat, muscle and strength. Keeping track provides a very useful form of positive feedback, as well as letting you know if any problems are developing. There are several ways of going about this:*

- *The Scale*
- *The Tape Measure*
- *The Mirror*
- *Before-and-After Photos*<sup>4</sup>

Arnold's list of basic equipment for exercise set me to thinking about the basic equipment I should have on hand for practice sessions. Naturally one

should have a well-maintained bassoon. The scale and tape measure for weight training are roughly analogous to the metronome for musical practice: they are all tools that can measure improvement. We will need to add a tuner or Korg to the basic practice list as well. I prefer the older type of tuner that you can set to a note and then play arpeggios to the fundamental. But working with any type of tuner is likely to aid your intonation. The mirror from Arnold's list is not a bad idea, especially a full-length mirror. This allows one to scrutinize any unnecessary and excessive movements (fingers, jaw, shoulders, etc.) One indispensable piece of equipment for practice sessions is a tape recorder. It is important to be brutally honest when accessing one's playing. Just as body builders need to objectively scrutinize themselves in the mirror, bassoonists need to listen to their recorded practice with critical ears. In order to make the practice sessions most productive, all of the basic equipment should be in easy reach.

Whether one is lifting 5-pound weights or 150-pound weights, concentration on the basics is very important for weight lifters to gain the most from each exercise and avoid injury. Similarly, whether a bassoonist is new to the instrument or a seasoned professional, the basics of good rhythm, good intonation, and solid practice skills are never outgrown.

Last of all I would include in the list of basic equipment the best edition of the music available. For the Hummel Bassoon Concerto the best edition currently available is edited by Ronald Tyree, published by Musica Rara.<sup>5</sup> Much of Dr. Tyree's dissertation was devoted to producing a critical edition of the work that was drawn from an examination of the autograph.<sup>6</sup>

### B. Progressive Resistance

*Arnold: To keep getting stronger, you have to keep increasing the resistance so that the muscles must continue to adapt. This is called progressive resistance training. This is the principle that is used in weight training and bodybuilding.<sup>7</sup>*

Practicing with a metronome is roughly analogous to training with weights. The key to building muscle mass in weight training lies in progressively adding weights in small increments. Similarly progress can be made on difficult musical passages by varying the speed of the metronome incrementally. One way to master passages with fast notes is to start each day at a very slow speed on a difficult passage, and gradually increase the speed. Aim for perfection each time. Keep increasing the metronome speed until you reach the failure point, when mistakes consistently occur. The failure point is similar to what weight lifters might call the point of muscle fatigue, when muscles are too tired to lift progressively heavier

weights. Once the failure point is reached, it is a good idea to incorporate a warm-down regimen so that you are not rehearsing a mistake. Slow the metronome down several settings and play through the difficult passage many times. The purpose of the warm down is to leave the practice session with perfect execution of the passage. For difficult slow passages, such as those requiring great breath control or particular musical nuance, employ the opposite technique. Start with an easier faster metronomic tempo and then slow the metronome successively with each attempt. Since the percentage change between metronome markings is proportionally greater at the slower speeds, you may wish to change the metronome in 1/2 or 1/3 increments. When the failure point is reached increase the speed so that you can end with a “perfect set.”

I have often encountered beginning bassoon students who were discouraged with their slow progress. A student may start out the week at a tempo of 42 to a quarter note and come back the next week at a tempo of 46 to the quarter note. This student would then be disappointed that the music could not be played faster. In response I would assure the student that their progress was actually quite rapid. An increase in speed from 42 to 46 is almost 10%. There are very few weeks in which I am able to increase my performance speed on a passage of music by that amount. The student is in fact in the most productive part of the curve of progress—the beginning section. Although higher metronomic speeds will come, the actual rate of progress will slow quite dramatically.

There is an added benefit for musicians working on difficult passages at a variety of metronome settings. This gives your technique a great agility. There is a danger in practicing a difficult passage at just one tempo: rarely will the performance be at that tempo. Learning the passage at a variety of tempos will give you the flexibility to cope at concert time with increased adrenaline and the tempo variations of colleagues and conductors.

### C. Seeking out Counsel

*Arnold: For the first year or several years that you train for competition body building you will be relying, for the most part, on techniques and strategies that have been developed by and for other people. This is normal... In any sport, the first step is to learn fundamentals... Don't try to “reinvent the wheel” right off—learn from what we who have gone before you have discovered. But keep in mind that these are not firm rules, but suggested guidelines.<sup>8</sup>*

Seeking out the counsel of experienced performers first is the best way to minimize lost time on “dead end” routes of practice. If you do not yet

have a great teacher to work with—get one. This will save you hours if not years of agony, and help you to avoid dead-end avenues in your practice sessions.

While not a substitute for an excellent instruction, *The Double Reed* and other journals contain performance suggestions for some of the most challenging bassoon literature. It is worthwhile to check out the advice of other bassoonists before you journey down a dead-end route. These fingerings and performance suggestions are indexed on the World Wide Web site of the International Double Reed Society. You may access them at: <http://idrs.colorado.edu/finghome.htm>.

### III. Avoiding the Plateau

*In weight training, you can't just keep doing the same thing. Somewhere along the line, you have to train with more intensity. Either you need to lift more weight, to go through your routine at a faster pace, to add more exercises to your program—or all of the above.<sup>9</sup>*

#### A. Varied Practice Techniques

Naturally it is to our advantage to do whatever we can to avoid reaching the plateau.

We want our practice efforts to pay off with improved technical mastery of the instrument, not simply maintenance of the status quo. Arnold emphasizes the necessity of varying the routine in order to achieve maximum benefit. Just as a body builder will need different routines and different equipment to develop a single muscle to its maximum, so too we will need a variety of practice methods to reach our full potential. A varied practice regimen is not just an option, it is a requirement for substantial and prolonged progress. I have made it a personal goal to find at least three ways to practice problem passages and performance inadequacies.

Stephan Weidauer's article “Suggestions For Practicing Technically Difficult Passages For Bassoon” contains a wealth of insights on how to vary your practice routine.<sup>10</sup> Among the varied routines he suggests are metronomic changes, varied articulations and rhythms, segmentation, expansion drills, and the development of etudes. The reader is encouraged to carefully study this work. In particular Weidauer's expansion drills and development of etudes represent the type of creative approach to practicing that Arnold is advocating. You must avoid the repetitive rut of the same routines every day to progress beyond the plateau.

Richard Ramey's article “Ravel's *Bolero*: Practice Techniques for the Bassoon Solo” contains some useful advice for practicing good intonation.<sup>11</sup> In the article he suggests setting the tuner to emit a G and play the *Bolero* solo over the droning pitch. I find that a drone with more overtones—such as a rich organ stop—makes hearing the intonation even easier. You

can also try recording yourself playing the droning pitch (preferably in a lower octave) and then practice the passage with the tape of the drone sounding. Most often it is best to have the drone set to the dominant scale degree instead of the tonic scale degree. Thus, you can adjust both tonic and dominant chord members to the reference pitch.

The practice methods of beat displacement and beat expansion or contractions are particularly effective tools to master certain difficult passages.<sup>12</sup> Beat displacement shifts the pulse in a difficult passage by an eighth note, or a sixteenth note, etc. Thus, the beat will fall on different notes in the passage and cause you to practice anchoring the passage on different pitches (compare Figures 2 and 3). This subtle change can yield surprising results as

Figure 2. Hummel *Concerto*, III. mm. 169-170.



Figure 3. Beat Displacement of Figure 2.

a practice method. Beat contraction or beat expansion is a practice method I have developed to gain further security on particularly difficult passages (Figures 4 and 5). In Figure 4 the time signature is changed from the 6/8 of Figure 2 to 2/4, thus contracting the beat. In Figure 5 the number of 16th notes per beat is enlarged from the six in Figure 2 to

Figure 4. Beat Contraction of Figure 2.



Figure 5. Beat Expansion of Figure 2.

seven—expanding the beat. By mixing the varied routines advocated by Weidauer with beat displacement, contraction, and expansion and you have nearly infinite possibilities for practicing difficult passages.

Selecting the appropriate method of practice to address the problem is a very important key to success. Just as a weight trainer seeks to find exercises that isolate weaker muscles, we must also seek practice methods that target not our strengths,

but our deficiencies. Purposely make your practice sessions as difficult as possible. If you have trouble playing slow, force yourself to play slower. If intonation is a problem, make use of a tuner and a tape recorder. In addition work out passages over a single sounding pitch. If your difficulty is with the speed of the passage practice with varied rhythms (à la Weidauer), tempos, and make use of beat displacement, contraction, and expansion drills.

## B. Innovation

When Dick Fosberry won the gold medal at the Mexico City Olympics in 1968 with the “Fosberry Flop” he started a revolutionized approach to the high jump event. His new technique of hurdling over the bar backwards has now been universally adopted, and as a result high jumpers are now achieving new records. Sometimes you will need to adopt an innovative technique to break through a plateau and establish a new curve of progress as illustrated in Figure 6. Earlier I mentioned my single-tonguing limitations. If I simply accepted the limits of my single tongue, portions of the bassoon literature would be out of my reach. By adopting new tonguing techniques—double tonguing, triple tonguing, and combination tonguing—I have moved beyond my single tonguing plateaus, and established new speeds for articulated passages.

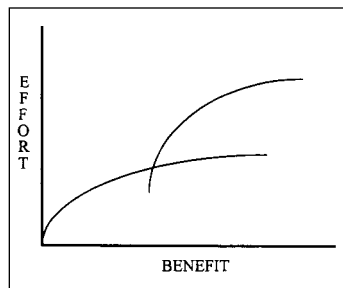


Figure 6. Breakthrough Due to Innovation.

Readers are probably familiar with the concept of double tonguing (T K T K) or triple tonguing (T K T or T T K), but “combination tonguing” is a term no doubt unfamiliar. Several years ago Bernard Garfield published an article in the *Woodwind Magazine* on his performances of the fourth movement of Beethoven’s *Fourth Symphony*.<sup>13</sup> In the article he describe a combination of a double-tongued pair with a single-tongued pair (T K T T), which I have termed “combination tonguing” for lack of a better term. I am indebted to Garfield’s innovation, and the subsequent teaching of Arthur Grossman who first introduced me to the concept. This type of tonguing gives added speed without the percussive, “machine-gun” articulation of the double tongue. It is perfect for metronomic speeds of 126-144 where one must tongue four sixteenth-notes to a beat.

### C. Sprint Testing

Sometimes it is not possible to know what will work and what will not when one starts to practice a passage. Perhaps you are unaware of any suggestions, or the recommendations are not appropriate for you, your bassoon, or your style of performance. In this case it is best to pursue several methods at the same time until one alternative emerges as clearly superior. Try practicing the alternatives slowly for a few days. Then select short segments for test “sprints” of four or five rapid notes played as rapidly as possible. Record your tests with a tape recorder and listen to each alternative carefully. Usually one method will have the greatest potential for rapid speed and clarity.

An illustration of the importance of sprint testing was made clear to me in several portions of the Hummel Bassoon Concerto. Faced with difficult hocket sections (such as Figure 7) of the Hummel Bassoon Concerto’s first movement, I needed to make several decisions: 1) whether to single or

**Figure 7. Hummel Concerto, I. mm. 142-143.**



double tongue non-slurred notes and 2) whether to employ the flick keys. If I chose the method that was the most facile at the first moment I read the piece, no doubt I would have settled upon single tonguing and no flick keys. My final choice, however, while not easy at first, has clearly proven its superiority. Let me explain my choices, and how the sprints determined the final solution.

I decided long ago that I would use the flick keys whenever I could. I find that the clarity of sound and security of attack make their use indispensable.<sup>14</sup> However, I am not able to move my left thumb swiftly enough in the rapid hocketed passages such as in Figure 7 to approach performance tempo. I arrived at the solution of engaging the whisper key lock for the entire passage and employing the flick keys to enunciate A3-C4 and D4 (A up to C above open F, and D above open F, ). However, when I used each “appropriate” flick key, such as the A flick key for A3, C key for B3 and C3 etc., my technique was still not clean. Experimentation with the sprints resulted in my decision to use only the D flick key for all the notes A3-C4 and D4. I engaged in further testing of the hocketed section to see if single tonguing, double tonguing, or slurring the entire passage in pairs would work best. Once again the sprints helped me determine that the double tongue (with the “k” sound on the upper note) gave me the best clarity and facility. There is a peculiar characteristic to the “k”

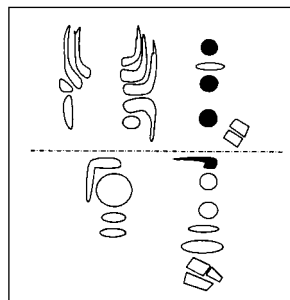
articulation that naturally inflects a pitch upward. In the sprint testing I discovered that this characteristic makes the double tongue uniquely suitable for the passage.

I also tested with sprints another passage in the first movement of the Hummel Bassoon Concerto I. The octave C#s in Figure 8 were such a hindrance

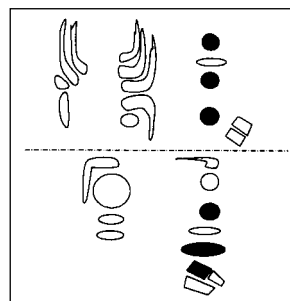
**Figure 8. Hummel Concerto, I. mm. 302-303.**



that it was quickly apparent to me that I would never be secure at concert speed on the passage with the standard fingerings. The rest of the hocketed octaves were not a problem particularly when I employed double tonguing, set the whisper key lock for the entire passage, and employed the D key to flick A4, Bb4, B4, C4, and D4. The key to mastering this passage came with the choice of alternate fingerings for C#3 and C#4, which are supplied in Figure 9. A critical listening to the taped alternatives of short segments—sprints—led me to the best choices for my performance of the work.



**Figure 9.  
Fingerings for C#3  
and C#4 in m. 302.**



### V. Conclusion

*Arnold: ... once you achieve an advanced level, there is no longer any clear-cut path to follow. You have to break your own trail... At some point, if you want to go beyond the mediocre, you are going to have to discover what the needs of your own body are, and how*

to individualize your diet and training to develop your full potential.<sup>15</sup>

Arnold's advice on progressing beyond the mediocre and breaking your own trail needs to be taken to heart. Indeed, each of us must be our own teacher. We should employ great creativity to arrive at practice methods and performance solutions which will encourage our best individual progress. Superior performances are not accidents, they are the result of outstanding practice. Discipline is the key to success. Innovations in practice methods will lead to excellence in the concert hall.

The practice methods described in this article and the performance decisions I made in the Hummel Bassoon Concerto were all individualized according to my taste and needs. Do not be surprised if the paths I have chosen do not work to your greatest benefit. I am encouraged that in recent years bassoonists such as Weidauer and Ramey have shared their successful practice methods. Just as Olympic athletes continue to push the human body to new levels, we as bassoon performers have yet to see the full capacity we are capable of. Our exchange of ideas will greatly improve our performances.

Although my lessons with Arnold drew to a close that summer, his insights continue to guide me to this day. Perhaps it was fitting then that his parting words were, "I'll be back!" ❖

#### Endnotes

<sup>1</sup> New York: Simon & Schuster, Inc., 1981.

<sup>2</sup> p. 124.

<sup>3</sup> Marc Apfelstadt and Ronald Klimko, *Bassoon Performance Practice, Teaching Materials, Techniques and Methods* (Moscow, Idaho: The University of Idaho, 1993), p. 34.

<sup>4</sup> pp. 25, 28-29.

<sup>5</sup> Unfortunately the printed quality of the edition does not measure up to Dr. Tyree's editorship. The beams of 16th and 32nd notes blur to a single black line in the edition. There is one error contained in the solo part. The first two sixteenths of measure 216 of the third movement should be C4 and A3.

<sup>6</sup> Ronald Tyree, *An Edition for Study and Performance of the Grand Concerto for Bassoon and Orchestra by J. N. Hummel and Four Sonatas for Bassoon and Keyboard, Opus 26 by J. B. Boismortier* (Ph.D. Dissertation, University of Iowa, 1957). For further information on the Hummel concert consult Wade Inrvin, *Johann Neopomuk Hummel's Grand Concerto in F, The Journal of the International Double Reed Society*, 20 (1992): 64-66.

<sup>7</sup> p. 13

<sup>8</sup> pp. 225 and 226.

<sup>9</sup> p. 124

<sup>10</sup> Contained in *The Journal of the International Double Reed Society* 20 (1992): 85-96.

<sup>11</sup> Contained in *The Double Reed* 17/3 (Winter 1994): 67-70.

<sup>12</sup> I am indebted to Christopher Leuba for the beat displacement practice method.

<sup>13</sup> "The Bassoonist's Nightmare," *Woodwind World* 2 (March 1958): 11.

<sup>14</sup> Readers may wish to consult the following articles for more information about the flicking technique: William Dietz, "The Flicking Technique of the Bassoon," *The NACWPI Journal* 37/3 (Spring 1989): 21-26. Robert S. Williams, "Bassoon Basics for the Flicking Bassoonist!" *The Double Reed* 18/2 (Fall 1995): 41-47; Norman Herzberg, "Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon," 18/3 (Winter 1995): 53-62.

<sup>15</sup> pp. 225 and 226.