

“Technique Tips: #2 Power Scales”

by Jeffrey Agrell (Series Editor)

In the preceding column, "Quick Study," Tip No. 4 suggested that looking for familiar patterns within strings of notes is one way to solve certain technical problems very quickly. You may have caught the important qualifying phrase concluding this tip: "*Assuming these scales have been previously practiced, you can sail through the complex licks....*"

There's the rub, *previously practiced*. We all know our scales, or we did at one time; very likely we still review them occasionally if not practice them exactly as we did in days of yore. Um, what scales, exactly? Probably most of us, when we practice scales at all, practice major scales and possibly a chromatic scale now and then. Up an octave (or perhaps two or even three), and down again.

This is certainly something we should know how to do, but doing only major scales and only in this way builds limits into our technique. What we know then is just octave scales, always starting on the same note, the tonic. How often do we encounter scales of one and two octaves?

Mostly--as in the Shostakovich examples presented in the last issue--we encounter parts of scales. We will, of course, have some familiarity with these parts from our octave scale practice, but we could acquire much stronger scale technique by breaking the long scales into shorter sections and then working for technical levels much higher than those we are accustomed to with one- or two-octave scales. By practicing smaller sections, we can repeat sections of the scale many more times than we normally do when we practice "long" scales, thus elevating technique by building "automatic" patterns into the fingers. When the shorter patterns are thus learned, they are much more useful in building the "long" scales than vice-versa.

We also tend to practice only major scales (does anyone except jazz players really practice harmonic and melodic minor scales once they've passed their scale proficiency exam?). The Shostakovich example last issue demanded parts of major, minor, chromatic, and modal (especially Locrian) scales in various keys and registers in quick succession. By practicing "power scales"--parts of scales honed to a high technical level-

-the difficulty of such passages is greatly reduced, and, for lagniappe, sightreading abilities are delightfully and noticeably thereby enhanced.

The most basic power scale is a major pattern, scale steps 1-5.

Here is an example of power scale practice: begin using staccato articulation as indicated, quarter = 60. Deliberately start very slowly to give the fingers lots of drill in perfectly coordinated and clean repetitions. Gradually crank up the metronome marking, repeating many times in each key until half note = 120 (for example). Then, go back to about half note = 100 and use the second articulation pattern. When a maximum tempo has been reached (i.e., the fastest tempo that can be played perfectly), repeat the process using the final articulation (all slurred) up to your maximum (e.g., half note = 144 or 152). Never let yourself get away with the slightest sloppiness in articulation. As soon as you start to make mistakes, stop or slow down. Practice does not make perfect; perfect practice makes perfect. Speed is a natural and effortless product of slowly-acquired fluency, quality + quantity. It is important to use a variety of dynamics as well, from *pp* to *ff*, as well as with crescendo-decrescendo "hairpins".

To aid practice in all keys, construct one or more orders of keys, e.g., the circle of fifths, chromatically, go backward, or improvise a random succession of keys. All power scales can be practiced in several registers as well. Start on a different key each new session. Repeat, lowering the third scale step (i.e., making the scale minor). Spend at least 50% of your time working on a new scale and the rest of the time reviewing the power scales you have already worked up.

Great additional tonguing benefits may be had by repeating (or perhaps beginning) the entire series using double-and/or triple-tonguing, e.g., playing two or four per note. Advanced players may double-tongue one syllable per note.

The choice of playing from scale steps 1-5 is somewhat arbitrary. Using the range of a fourth (i.e., scale steps 1-4 and back) is also advisable.

At this point, when your major and minor power scales 1-5 are fluent, you will find that you can manage octave scales much more easily by conjoining two of the shorter power scales that you have learned with a high degree of facility. As a matter of fact, nearly all scalar passages you will encounter are analyzable into power scales that you already know.

Since some scales have awkward fingerings within 1-4 or 1-5 scales, smaller patterns should also be isolated. Working up speed and fluency of all combinations of half steps, whole steps, and thirds (1-2-3; 1-2-b3; 1-b2-b3; 1-b2-3) will even out the continuity between the difficult and the easy intervals, and prepare the way for the 1-4 and 1-5 power scales in the same way that the latter build the basis of automatic fluency in the longer scales.

It goes without saying that maximum benefit is obtained when the exercises are done in all keys and registers with varying dynamics, tempos, tonguing patterns, and articulations.

As long as we're at it, let's be thorough and write out a few more variations on the power scales that come to mind:

- Modes. Starting a major scale on a different scale degree will give you the scale patterns known as the modes, namely: starting on C (Ionian), D (Dorian), E (Phrygian), F (Lydian), G (Mixolydian), A (Aeolian), B (Locrian). Ionian and Mixolydian use the major power scale 5 (i.e., up to the fifth degree); Dorian and Aeolian use the minor power scale 5. Learning the rest of each scale is then not a big stretch. Three scales have variations on major and minor in their lower parts: Phrygian (1-b2-b3-4-5), Lydian (1-2-3-#4-5), and Locrian (1-b2-b3-4-b5).

When you have mastered your major and minor power scales in all keys, articulations, registers, and tempos, the modes will provide you with additional material so that, unlike Alexander the Great, you will not have to weep that there are no more worlds to conquer.

- When the shorter power scales up to step 5 are fast, clean, and automatic, add the sixth scale degree for all combinations. Repeat using b6. Extend them one more time using b7 and natural 7.
- Yet another scale: the diminished scale. Like the diminished arpeggio, there are only three (being symmetrical, they repeat; e.g., the C diminished scale has the same notes in it that the Eb, F[sharp], or A diminished scale does), spelled 1 2 b3 4 b5 b6 bb7 7 (e.g., C D Eb F Gb Ab Bbb[A] B). It is less tricky than it seems at first--since you know your minor third power scales, it is no problem, just make a string of them.
- And one more: the whole tone--just like the Lydian 1-#4, but continue up using #5 and #6 (b7).

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