

Scales for Improvisation 2 – Modes

When we practice playing scales, we usually start on the first note, play up and back down, and end on the same starting note. For example, if we play a C major scale, we start on C and end on C. But why not start on a different note? Things become more confusing when you do this, because we aren't used to physically doing that, and because it will sound different.

Major scales are made up of intervals. Using "W" for a whole step and "H" for a half step, a major scale looks like this: WWHWWWH. C-D(W), D-E(W), E-F(H), F-G(W), F-A(W), A-B(W), B-C(H). Without realizing it, we become used to hearing these intervals in this order. If we change our starting note, the order of intervals gets messed up, and we hear something we aren't used to. What also happens when we reorganize these intervals is that we capture a different harmonic sound with the new scale. C-C is a major scale and corresponds to a major chord, but D-D's intervals are such that it describes a minor chord, more specifically the minor chord that is illustrated by Dm7 from the previous supplement.

Each note of a major scale can represent its own 7-note scale, and therefore will capture it's own sound that is illustrated by one specific chord symbol. Changing the starting pitch of your scales creates what is known as a "mode." The scale each mode is derived from is called the "parent scale." So using a C major scale starting on D described above, C major is the parent scale, and D is a mode of C major.

We can start to look at this by understanding that a scale can be thought of in two ways: horizontally and vertically:

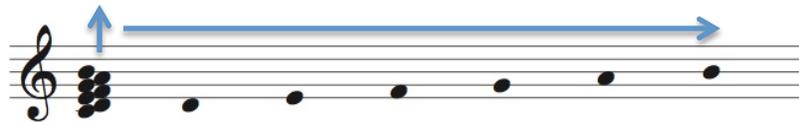


Figure 1 - Horizontal and vertical C major scale

Each starting note of C major can be played up and down as its own scale, while always using the same notes that are in C major. Each mode has it's own name:

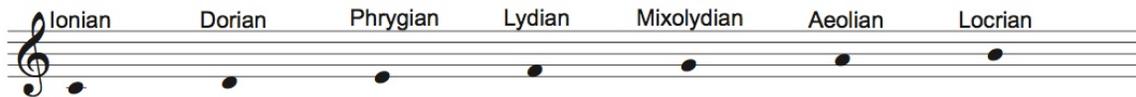


Figure 2 – Modes of C major

Going one step further, we can attach chord names to each mode, therefore showing us each of the seven chords that we can use a major scale for.



Figure 3 – Modes of C major with matching chord symbols

Each major scale can be used for seven different chords. This is because the intervals can be arranged in seven different ways before the order repeats itself. Remember, for each arrangement of intervals in a scale, your ear hears it differently and therefore captures a completely different harmonic picture.

To create arpeggios (chords) for each mode, all we have to do is build them from the 1st, 3rd, 5th, and 7th note of each starting pitch, always using the notes from the parent scale only, in this case C major. Refer back to the important notes of each chord from supplement 6. They are included here.

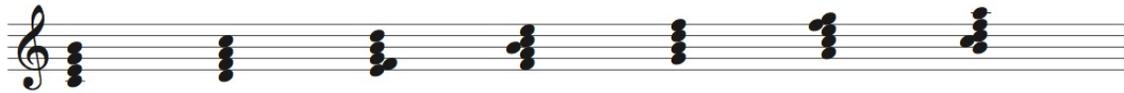


Figure 4 – Arpeggios built on each starting pitch of C major

One might ask why this is necessary. If you combine your knowledge of parent scales along with the knowledge of supplement 6, you can make clear sense out of what each chord symbol tells you, and where it comes from. For example, if you memorize the order of the modes and the corresponding chord symbols, you will always know what notes are in the scale as long as you know all of your major scales. Keep in mind that modes will transpose evenly into 12 keys. If Dm7 uses the second mode of C major, then Gm7 will use the second mode of F major, because G is the second note of F major.

Each chord “extension” (meaning anything after the letter of the chord) will always use the same mode. If you know “7” always uses the 5th mode of a major scale, and you see Eb7, A7, Db7, E7, F7 in a piece, you know each chord will use a different parent scale because all of the extensions are identical but all of the roots are different. Likewise, if you see Dm7, G7, Cma7, Am7b6, Fma7#11 in a piece, all of these chords correspond to a C major parent scale, so you can use the exact same notes for all of those chords! It is much easier than using the information in supplement 6 to dissect each chord individually. With time and practice you will see these similarities and life will become much easier.

There will be times when more advanced chords will not fall into the major scale modes. Chords like G7#11, B7alt, A7b13 are commonly used in jazz as well. These scales come from the melodic minor parent scale. A melodic minor scale is a major scale with a lowered 3rd note.



Figure 5 – The C melodic minor scale

Without going too much into it, chords can be derived from each mode of the melodic minor scale as well. Each mode has a chord symbol associated with it, and each scale accurately depicts that chord.



Figure 6 – The chords of C melodic minor

Often times people will see G7 and use many different scales. Several variations of G7 can be G7#11, G7b13, G7alt, G7#5, G7b9, and the list goes on. Each extension has its own parent scale and therefore its own notes that accurately capture it's sound. Way back in supplement 6 when I say each chord symbol has only one scale, this is where that comes from. One could argue that you can use six different scales for G7 as listed in the above example, but it is important to note that every time you change the scale you change the accurate chord designation. Here are many versions of a G7 chord with the proper scales used to improvise over them:

G7 – 5th mode C major, G7#11 – 4th mode D melodic minor, G7b13 – 5th mode C melodic minor, G7alt – 7th mode Ab melodic minor (also called diminished whole tone), G7#5 – wholetone scale, G7b9 – 5th mode C harmonic major, G7b9b13 – 5th mode C harmonic minor, G13b9#11 – G ½ whole diminished scale.

The list goes on, but this is enough to illustrate the importance of learning modes if you want to improvise. Don't get discouraged, because 90% of all scales needed can be found within the major scale modes, and you probably only need 5 of those. If you want to learn, then start with one parent scale and one mode at a time.