Understanding Minor Scales

In this brief tutorial we are going to try to demystify minor scales. When we are dealing strictly with major scales we really only have one scale to draw our notes and melodies from. However, we have 3 different types of minor scales when working in minor keys. That gives us a lot more options but can also lead to some confusion. But never fear, you will understand it perfectly well after this quick tutorial.

Why are there 3 minor scales?

Well this tonal harmony system has come done to us from composers of the past 500 years or so. The first minor scale we had was called natural minor. It is called that because it is basically just a mode of the major scale. Let's look at it this way, every major key has a relative minor key. You can quickly determine what that key is by finding the 6th note in any major scale. I am assuming that you have already studied the "Understanding Keys" lesson available at www.GuitarLessons365.com, if you haven't you will need to have that lesson nailed before going on to this one because we are just going to build upon what we learned in that tutorial. So go and grab that tutorial in the music theory archives section on the site and you will be good to go.

So continuing on, every major key has a relative minor. What we mean by relative is that they share the EXACT same notes. Let's take a look at an example. In the key of G major the seven notes are G A B C D E F#. Now if you find the 6th tone in the scale you will see that it is an E. So we can now say that E Minor is the relative minor key of G Major. The seven notes would be the same except now we will start on E instead of G. That would give us E F# G A B C D. There you have it, a complete E natural minor scale. Oops, there's that "natural" minor thing again. Well just remember that we call a minor scale natural minor when it shares the EXACT same 7 notes as it's relative major without altering any of them. Easy enough??

Altering The Natural Minor Scale

A long long time ago, back in the Gregorian Chant days when music was usually monophonic or sung one note at a time, the major scale and its modes which included the natural minor scale was fine. They all had their own moods to them, and were perfectly suited to create just about any atmosphere the monks wanted. However, as counterpoint started to develop and composers started to want to use multiple notes intertwined together, sometimes giving the impression that many notes were being heard at the exact same time, harmony as we know it came to be.

Natural Minor And Harmony Are Not Good Bedfellows

A centuries passed and composers began to really push the envelope with harmony, mainly the great J.S. Bach, they began to notice certain traits in harmonic progressions that run through almost all of music. The most essential trait was the chord progression of IV V to I. That single progression is all that was needed to establish a key, and for someone like Bach, who would change keys often very rapidly and frequently within a piece of music, he need that IV V to I progression to make his music and key modulations work. The main problem with all of this was that when writing in minor keys the chords that are used for the harmony are derived from the minor scales (Check out the lessons on writing minor key chord progressions in the music theory archive to learn more about that).

Thats all well and good until we see that we can't have that chord progression in a progression built from the natural minor scale. The chord progression that natural minor would give us would be iv v to I. Now the minor iv chord is fine as well as the minor i, but the minor v doesn't propel us back to the I chord like we need it to. When studying ear training this becomes VERY apparent very quickly. But for now just take my word for it, we will be studying plenty of ear training at www.GuitarLessons365.com so I will make sure that you understand that as well.

So what composers did in order to be able to write effective chord progressions in minor keys was create a harmonic minor scale. The only difference between the harmonic minor scale and the natural minor scale is that with the harmonic minor scale we raise the seventh scale degree a half step. So going back to E Minor again the natural minor would be E F# G A B C D and the E harmonic minor would be E F# G A B C D#. It that easy, those two scales only have one different note between them. But the important thing here is that by changing just that one note the V chord in the key changes from the notes B D F# to B D# F#. So essentially we have changed the v chord to a V chord or from minor to major. Now our chord progression we base off of the harmonic minor scale would be iv V i. That is what we need to establish a key, a major V chord. So that is also why composers began calling the altered minor scale with the raised 7th scale degree harmonic minor, since it allowed a much better series of notes to build chord progressions within a minor key.

So If Harmonic Minor Was Created For Harmony Is Melodic Minor For Melody?

Yes and no. The way modern musicians use melodic minor is quite different from the composers before the 20th century. The natural minor scale works quite well for melody except for one "minor" problem. Pardon the pun. The problem has to do with voice leading. You see, when composers used the natural minor scale for melody they found that it worked great when the melody in the last half of the octave was descending, however when ascending all the way through the natural minor scale, the last two notes seemed to never want to go all the way up to the 8 or octave. Therefore making it difficult to establish the tonal center with the melody. So to solve this problem composers began raising the 6th and 7th scale degrees of the natural minor scale when ascending and using the regular natural minor scale when descending. They would raise the 6th and 7th scale degrees each a half step and that would in turn propel the scale all the way to the octave. Obviously if those notes propelled the scale upward they probably wouldn't work very good on the way back down, so we use the natural minor while descending.

That is the reason that all scale studies that come down to us from the past no matter what instrument you play always have you practice minor scales as the melodic minor going up and the natural minor going down. It was much more pleasing to the ear back then. Nowadays, our ears have become so accustomed to dissonance that when we hear melodic minor played up and down it just sounds normal to us. But back in the 1700's it was like nails against a chalkboard.

So getting back to E minor again, if we want to figure out a melodic minor scale all we have to do is raise the 6th and 7th scale degrees up a half-step each. So E natural minor is E F# G A B C D and E melodic minor is E F# G A B C# D#.

So I hope all of this historical background helps you understand why we have 3 minor scale types now. In common practice musicians create melodies and improvise using all 3 interchangeably. And they never worry about one ascending or descending, if they like the sound they just use it. Period. So let's break down a few sets of minor scales so you will know you fully understand all that we have covered.

C Major/A Minor is it's relative minor key.
A Natural Minor
A B C D E F G
A Harmonic Minor
A B C D E F G#
A Melodic Minor
A B C D E F# G#

D Major/B Minor is it's relative minor key.
B Natural Minor
B C# D E F# G A
B Harmonic Minor
B C# D E F# G A#
B Melodic Minor
B C# D E F# G# A#

Hopefully you are beginning to see the formula is always the same. The first thing you need to do after you know what minor key you want is to figure out it's relative major key. So if we want B minor like above, we will have to be able to locate in which major scale B is the 6th note. That shouldn't be too hard if you know your major scales well, which you can find out how to do in the "Understanding Keys" tutorial we talked about earlier.

After locating the relative major scale, you now know the 7 notes in you natural minor scale. Make sure when you spell the natural minor scale you start on the B note. Then after you have your natural minor scale, all you have to do to get the B harmonic minor is raise the 7th scale degree one half-step. To get the melodic minor scale you would raise both the 6th AND 7th scales degrees up one half-step.

It is important to remember that the harmonic and melodic minor scales are only altered minor scales. If you think of them that way things become far less confusing.

You may be saying to yourself, "Hey that is WAY to much thinking, how am I every gonna be able to improvise on stage when trying to think about all of this stuff". It's simple, this is just a method to get these notes into your brain. You need to spend enough time with these minor keys AND major keys for that matter, so that eventually you just KNOW the notes without thinking. But that can never happen if you don't know how to figure out the notes in the first place. Plus, you will see that on the guitar we usually only use a few different minor keys and you will become very familiar with them VERY quickly.

The following lessons will be video lessons concentrating on how to see both of the altered minor scales on the fretboard. I will be arranging them in 3-notes per string format just like we did the major scales. The added bonus from learning these 2 altered minor scales well is that they both have their own series of 7 modes each. So combined with the seven major scale modes we will have 21 scales sounds to choose from!! So stay tuned, this ride is just getting started. :)

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