

Tonal Music

Music Fundamentals

14-119-T

Although they may not know the correct title, most people regardless of musical background have heard *Beethoven's Symphony #5 in C Minor*. In addition to being very popular at symphonic concerts this composition has been used as background music in everything from the dramatic plays to Warner Bros. cartoons. In music we also see titles like Stravinsky's *Symphony in C*, Mozart's *Piano Concerto in A Minor*. Sometimes, we simply refer to pieces by saying, "Brahms D-Major violin concerto." What all of these pieces have in common is that the titles, or our references to pieces, mention the *key* or *tonic* of the composition. *D major*, *C minor*, and *A minor* are all keys in which these pieces were written (if something is just a note name as in Stravinsky's *Symphony in C*, it implies that work is in C major).

What is Tonality?:

The word *tonic* simply refers to the most important note in a piece or section of a piece. Music that follows this principle is called *tonal music*, whereas music that does not have one note more important than another is called *atonal music*, or literally *without tonic*. However, from approximately 1600 to 1915, all music in western culture was tonal. Again, all music had one note that all other notes gravitated toward. This does not mean that any one key was predominant in all music. On the contrary, there are 30 possible tonics, or keys for compositions, when you consider both major and minor modes, but more on that later.

Scales:

You may be asking how composers made one note more important than another note. The answer can be found in the construction of *scales*. All tonal music is based upon scales, or a collection of pitches that are arranged in a specific intervallic pattern. In traditional music before the 20th century, all scales were based upon the collection of seven pitches from the octave. In addition, only one form of a note will be used. For example, a scale has an A-natural in it, then it will not have an A-flat or A-sharp. Because of this, five pitches are omitted to create a specific intervallic pattern. You probably have heard of or know the major scale. As an example of the major scale, play on a keyboard by starting on C and play all of the white notes up to the next C. Notice that five notes are omitted – C#, D#, F#, G#, and A# (of course you can substitute their enharmonics Db, Eb, Gb, Ab, and Bb). The notes that you do play are C, D, E, F, G, A, B, and C. This is the intervallic construction of all major scales. [see Figure 1]

Therefore, regardless of what the tonic is, in a major scale there will always be a minor 2nd between scale degrees 3 (E in Figure 1) and 4 (F in Figure 1), as well as 7 (B in Figure 1) and 8 (C, or the tonic in Figure 1). The intervals between all of the other adjacent notes will always be a major 2nd. For example, if we decided to begin a major scale on F [see Figure 2], then the notes of our scale would be F,G,A,Bb,C,D,E, and F. Notice that A to Bb (or scale degrees 3 and 4) is a minor 2nd (also known as a half-step), and that from E to F (or scale degrees 7 and 8) we also have a minor 2nd. In addition, the interval for all of the other adjacent notes is a major 2nd (ie, F to G, G to A, Bb to C, C to D, and D to E).

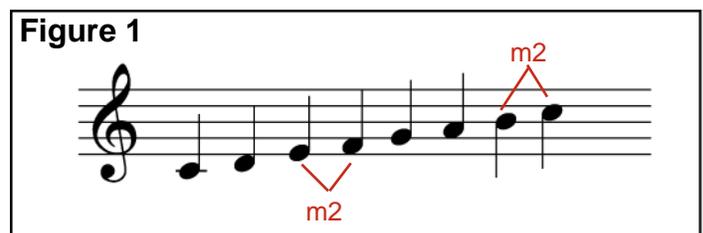
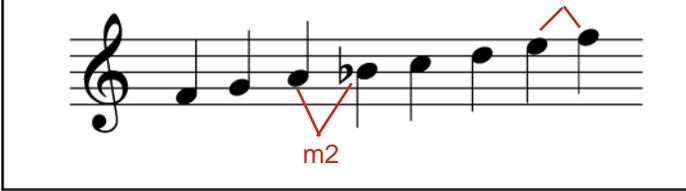


Figure 2



Again, you may still be asking how does this make one note more important than another. By this type of construction, to our ears a series of dissonances and consonances naturally exist. All of the notes tend to gravitate toward the tonic. You can try it out for yourself. Play a C major scale as directed above, but instead of completing the scale, stop on B. You will fight

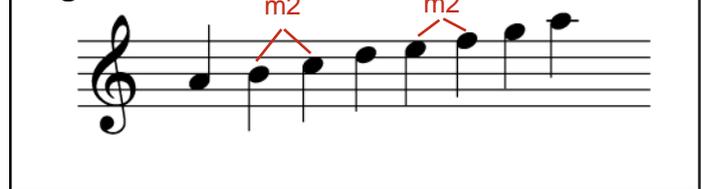
the urge to keep playing, or resolve that dissonance, until you reach C. After you play the complete scale a couple of times, play any note in the scale and listen to how it wants to progress to C.

Major vs. Minor:

Above, we discussed the construction of the major scale. In this case, the term *major* is commonly referred to the mode of a scale, or again, the arrangement of pitches in a linear manner. There are also other modes that are found in music (eg, Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian). Before equal-temperament in the 17th century, the major scale was known as the Ionian scale. That is, a construction of seven linear pitches that have the intervallic construction we discussed above. After equal-temperament, or the retuning of our musical system to the one we have used since, two scales became predominant until the 20th century: our major scale and a minor scale (seen above as Aeolian).

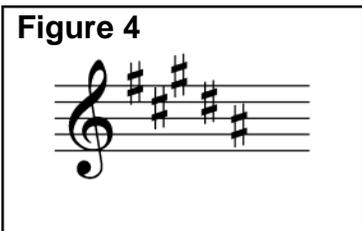
The minor scale, just like the major scale, is a collection of seven pitches; however, the intervallic structure is different [see Figure 3]. In addition, there are three forms of the minor scale: natural minor, harmonic minor, and melodic minor. There are many reasons for the three forms of the minor scale, but a discussion of this is well beyond the scope of this lecture and course; however, regardless of the form of the minor scale, the tonic remains the same. We will only concern ourselves with the natural minor scale for this discussion and class. As before when you played the white notes from C up to C, you can find the intervallic construction of the minor scale by playing the white notes from A up to A [see Figure 3]. Here we find that the minor 2nd exists between scale degrees 2 and 3 (B and C) and 5 and 6 (E and F).

Figure 3



Conclusion and Review:

Figure 4



All music written from approximately 1600 to 1915 are either in a major or minor key, and there are 30 different keys. To alleviate the labor of writing accidentals, *key signatures* were created. Key signatures are placed immediately after a clef, and they indicate what accidentals are needed throughout a composition, thus those accidentals would not have to be written next to a note in the music [see Figure 4]. Any note that does not have an accidental is considered natural. Performers would simply know that they should play a F# if there was a # for F in

Figure 5



the key signature. Imagine how difficult it would be to write a piece in B major without a key signature.

Figure 5 illustrates the difference between a melody

that uses a key signature and one that doesn't. The two melodies in figure 5 sound exactly the same. You can also find the scale for any key by looking at the key signature. Both figure 4 and 5 show the key of B major. There are five sharps in B Major: F#, C#, G#, D#, and A#. Since only one form of a note name will be used, (ie, There is an A#, hence there will not be an Ab or A-natural) a B major scale is spelled: B, C#, D#, E, F#, G#, A#, B. By reviewing the structure of the major scale [Figure 1], you can see that our spelling of the B major scale is correct.

In the next lesson, we will discuss the *Circle of 5ths* and how to recognize key signatures for major keys. To make this easier, you should continue to review intervals – especially the perfect 5th.