

Introduction to Music Composition

(Piano Version)

1. Interval Progressions

by Michael L. Carroll

Prerequisites: Ability to read music, including bass clef, some basic knowledge of intervals, concepts of major, minor, consonance and dissonance. Examples are in the accompanying audio file. Guitar and tablature versions available in separate files.

Much of Western music relies on the alternation between weak and strong beats. This can be seen on multiple levels. E.g., the first beat of a 4/4 time measure is often (by default) the strong downbeat for that measure. Measures themselves are also often classified as weak or strong, the first measure often weak like a pickup measure with the second measure strong (stressed). Often whole 8-bar (or longer) musical phrases are built up out of such two-measure schemata. We will adopt this convention here and focus on two-measure phrases consisting of whole notes in each measure with the first measure being the weak one, the second being strong.

It is true that much of Western music is conceived with either explicit or implicit harmony. Mozart's music is often so pregnant with harmony that even a single voice suffices to clearly imply the harmony. We will consider **two-measure, two-part interval progressions that explain the underlying harmony**.

In moving from a weak measure to a strong one, the root of the harmony often moves down a fifth or, equivalently, up a fourth. E.g., with the root in the bass, moving from G down a fifth to C we consider the following interval progression:

Ex. 1-1

Piano

The musical notation shows a two-measure phrase in 4/4 time. The first measure contains a G4 in the treble clef and a G2 in the bass clef. The second measure contains a C5 in the treble clef and a C2 in the bass clef. Both notes have fermatas above them, indicating a pause. The piece is labeled 'Piano'.

You'll notice that there is a sense of relief or resolution, even though there is nothing but consonant intervals involved here. Notice also that the upper and lower voices move in the opposite direction. This is an important first principle of voice leading that can't be stressed enough. To emphasize the sense that the voices are independent, have them move (whenever possible) in opposite direction. This is especially true when the second interval is a perfect one such as an octave or a fifth. There is an exception, however, when moving to the last measure of the phrase. Since the voices at the end of a phrase are now finished, the parallel (i.e., in the same direction) motion used to get there is of no consequence. The resulting perfect unions, octaves or fifths are strongly discouraged before the last phrase, however, because they strongly undermine the sense of independence of the two voices.

I tend to avoid the use of octaves and fifths within a phrase (at the beginning and end are fine) whenever possible unless I am writing three- or four-part phrases that have other intervals in the middle voices. And, by the way, in three- and four-part writing parallel and hidden octaves between inner voices (or between an inner voice and an outer voice) are perfectly acceptable, but that will be dealt with later when we get into three- and four-part writing. For now, in two-part writing, we will avoid them unless they are at the end of a phrase such as in Ex. 1-1 above.

Note: The fermatas in the second measure provide a pause in the audio files. All of these examples are available in a single audio file, [music_composition_intervals_1.wav](http://www.musicarroll.com/tutorials/canon) (also midi) found at <http://www.musicarroll.com/tutorials/canon>. Feel free to download these!

So where does that leave us in terms of intervals to choose from?

The most frequently used intervals in traditional two-part writing are the thirds and sixths. You'll see that in the last example the first interval was a third. (OK, technically a tenth which is just a third plus an octave.) The additional spacing of an octave doesn't change the mode, harmonic quality or function of the interval.)

Also, the first interval may include dissonant intervals provided they are resolved appropriately (unless the resolution is going to be postponed to add more tension and drama to the final resolution -- see Ex. 1-10). So, consider the following example in which the first interval is a 7th:

Ex. 1-2

3 Minor 7th (dissonant) Major 3rd (consonant)

Piano (Pno.) notation for Example 1-2. The first measure shows a minor 7th interval (3) between two notes in the treble clef. The second measure shows a major 3rd interval (3) between two notes in the treble clef. The bass clef has a whole rest in both measures.

Here's another one:

Ex. 1-3

5 Major 2nd (dissonant) Minor 3rd (consonant)

Piano (Pno.) notation for Example 1-3. The first measure shows a major 2nd interval (5) between two notes in the treble clef. The second measure shows a minor 3rd interval (3) between two notes in the treble clef. The bass clef has a whole rest in both measures.

And this one is particularly dramatic, since the first interval is an inverted tritone and both voices move **in opposite direction** to resolve into the comfort of a minor 6th:

Ex. 1-4

7 Augmented 4th (dissonant) Minor 6th (consonant)

Piano (Pno.) notation for Example 1-4. The first measure shows an augmented 4th interval (7) between two notes in the treble clef. The second measure shows a minor 6th interval (6) between two notes in the treble clef. The bass clef has a whole rest in both measures.

Of course, the first interval doesn't have to be a dissonance. The following are perfectly acceptable harmonic movements:

Ex. 1-5 Parallel Upward

⁹ Major 6th (consonant) Minor 6th (consonant)

Pno.

Ex. 1-6 Parallel Downward

¹¹ Major 6th (consonant) Minor 6th (consonant)

Pno.

Ex. 1-7 Parallel Downward

¹³ Minor 3rd (consonant) Major 3rd (consonant)

Pno.

Ex. 1-8 Opposite Motion

¹⁵ Major 3rd Minor 6th

Pno.

The last one is particularly pleasing because it involves opposite motion (reinforcing independence) and goes from one kind of interval (a third) to another (a sixth). Notice also that all of these last four examples involve movements from one mode (major/minor) to a different one. This also reinforces the sense of independence. The movement from a major to a major, while not forbidden per se, is less than optimal in this regard.

Another important principle is illustrated by all of these examples. The movement in the same direction is generally always stepwise for both voices. When moving in opposite directions the movement may involve melodic skips in both voices. It is also perfectly acceptable in parallel motion to have one of the voices move by skip while the other moves by step. But it is generally frowned upon to have both voices move by skip **in the same direction**, when moving from a weak beat to a strong one.

Ex. 1-9

17 Major 3rd Minor 3rd

Piano accompaniment (Pno.) showing two measures. Measure 17 (labeled '17') contains a Major 3rd interval (C4 and E4). Measure 18 (labeled 'Minor 3rd') contains a Minor 3rd interval (C4 and E♭4). The interval labels are placed above the treble clef staff.

This last one has the feel of staying within the same harmony (in this case, Am), thus prolonging any resolution. If we add a third measure with Dm as the functional harmony, we can hear some resolution:

Ex. 1-10

19 Major 3rd Minor 3rd Minor 3rd

Piano accompaniment (Pno.) showing three measures. Measure 19 (labeled '19') contains a Major 3rd interval (C4 and E4). Measure 20 (labeled 'Minor 3rd') contains a Minor 3rd interval (C4 and E♭4). Measure 21 (labeled 'Minor 3rd') contains a Minor 3rd interval (C4 and E♭4). The interval labels are placed above the treble clef staff.

Perhaps even more resolute with D major as the final harmony:

Ex. 1-11

22 Major 3rd

Piano accompaniment (Pno.) showing three measures. Measure 22 (labeled '22') contains a Major 3rd interval (C4 and E4). The interval label 'Major 3rd' is placed above the treble clef staff.

This is an example of the downbeat or stress being postponed. But let's not get carried away and get ahead of ourselves! We'll cover that more in later chapters when we deal with longer musical phrases. Back to two-measure movements.

One way to ensure that movement in the same direction preserves independence is to enforce mode changes by using accidentals. Of course, this will depend on the larger context of the piece wherein this progression might be found. Thus, to avoid the major 3rd to major 3rd movement as shown here:

Ex. 1-12

25

Piano score for Ex. 1-12. The first measure shows a major 3rd interval between the treble and bass clefs. The second measure shows a parallel motion, maintaining the same interval, but both voices move up by a step. This results in a major 3rd interval again, which is the progression to be avoided.

you could try this:

Ex. 1-13

27

Piano score for Ex. 1-13. The first measure shows a major 3rd interval. The second measure shows a parallel motion where both voices move up by a step, but the bass clef has a sharp sign, changing the interval to a minor 3rd.

or this:

Ex. 1-14

29

Piano score for Ex. 1-14. The first measure shows a major 3rd interval. The second measure shows a parallel motion where both voices move up by a step, but the treble clef has a flat sign, changing the mode and the interval.

Ok, let's summarize what we've learned thus far. There are four things to keep in mind when moving from one harmonic interval to another (and thus creating fragments of melody):

1. The direction of movement (parallel or opposite)
2. The modes (major, minor, consonant, dissonant and the implicit harmony -- i.e., the chord the interval represents)
3. The amount of movement (step or skip)
4. The stress (weak beats and strong beats, or weak measures and strong measures).

You can vary all of these things in order to achieve independence of voices. When moving parallel stepwise, try to vary the mode. When moving in opposite direction and putting stress on the second measure, try to move to a new harmony. When moving in parallel, try having one voice move stepwise and the other by skip.

These are **not** ironclad rules that must be followed, but they have been followed quite a bit by some of the best composers in Western music such as Bach, Haydn, Mozart, Beethoven, etc. It is always a good idea to learn from the masters!

In the next lesson you'll learn how to subdivide the whole notes to provide more melodic interest / personality to each of the voices and start venturing out beyond two-measure phrases.