Four-Part Harmony

Lesson One: Getting Started and the I-V-I progression

In order to compose most music (or understand how existing music was composed) you need to know how to create chord progressions. In classical music, this typically means creating harmonies with four parts that obey the rules of counterpoint. While other genres (such as pop and jazz) would be free to break these rules on occasion, learning this skill will help you create smooth and elegant progressions in any context.

The basic setup - “Keyboard Style”

We are going to begin by writing in keyboard style. We’ll have triads in the treble clef (to be played with the right hand) and a bass line in the other clef (for the left hand.)

These two parts of the texture behave very differently. The upper voices tend to move from chord to chord in the smoothest way possible. They are also carefully stacked so that they create a homogenous, blended sound. The bass line, on the other hand, will leap around a bit more, and it does not need to “blend” with the top parts.

The bass line is very easy to write, since it is spelled out for you in the requested chord progression. For now, we will write with all chords in root position - this means that the bass line will always cover the root of each harmony.

Three possible bass lines for the same progression

The Upper Triad

The upper voices will cover all three tones of the triad. In the beginning we’ll write our triads in “close position”, meaning that the notes are stacked as closely together as possible. This triad shape can be “flipped around” any way you want - we’ll have to vary our triad shapes in order to make smooth connections.

Contrary to what you might have learned, these upper triads are not in different “inversions.” The inversion is determined by the bass note, and as long as the bass is on C all three of these would be in “root position.”

Doubling

The upper voices will cover all three tones of the triad and the bass covers the root. Thus one of the tones (the root) ends up being “doubled,” since it appears in both the upper voices and the bass line. There are other possibilities, but we’ll worry about them later.

1) Always cover all three tones in the upper voices.

2) Always double the root.
Voice-Leading and the Rules of Counterpoint

Here’s the weirdest thing you need to understand about keyboard style. Even though we are planning each chord vertically by thinking about the triads and “flipping them around”, we also have to think of our progression in terms of horizontal lines. The upper three notes represent three different lines, and you have to pay attention to what each one does. We often call each part a “voice” and the art of connecting your chords in a smooth and legal manner is called “voice-leading.”

I    V

Here, the top line goes down a step, E - D, the middle of the chord also steps down, C - B, and the lowest part of the upper voices stays the same, on G. The bass line goes up a perfect fifth.

The #1 Rule of Counterpoint: No Parallel Octaves or Fifths

Counterpoint is the art of combining lines in an elegant and interesting way. In general, we want our lines to sound good together and create a full and lively texture.

Let’s imagine that we have two parts and both of them go from C to D.

Because the two lines both move up by a whole step, they are said to be in \textit{parallel motion}. And obviously these two particular parts are making octaves on each beat - this is the dreaded “parallel octaves” that are banned in counterpoint.

Parallel fifths are also banned.
A related rule is that you can’t make two fifths or octaves by contrary motion, either.

These two parts fly out in opposite directions, which is called *contrary motion*. Because they make a perfect fifth (F-C) and then another one (C-G), this is also banned. The same would be true if they made octaves by contrary motion.

**OK, WHY?**

We want our lines to maintain a certain amount of independence, so that we hear a nice, full texture. Most of the time as parts “do their own thing” this is not a problem. However, when parts sync up in parallel 5ths or 8ves the ear tends to fuse them together, so that they sound like one moving thing rather than two. Compare these two pairs of lines:

This pair is written with good counterpoint. I could diagram the effect of two independent lines like so:

Here I’ve replaced the ending with a bunch of parallel fifths. The idea is that this pair of lines “collapses” into a thin and somewhat crude-sounding texture.
Because of their acoustic properties (in particular, their close relationship to the overtone series) fifths and octaves are the only intervals that have this fusing effect. Other intervals such as parallel thirds and sixths tend to sound much fuller. Compare this passage which is written in parallel tenths (or thirds plus an octave.)

Parallels in the progressions

Believe it or not, you are responsible for making sure that no two pairs of voices make parallel octaves or fifths within your entire progression. There are six different pairs to look at!

However, for now you don’t need to worry. I’ll show you some basic procedures you can follow to make perfect connections every time. Later, we’ll learn how to systematically scan for these parallels and all sorts of other technical details.
I - V - I Progressions

We are going to carefully build up a vocabulary of chord progressions. Each stop on the way will introduce both a new harmonic function and new voice-leading requirements (i.e. new things you need to remember when you connect the chords).

The first unit focuses on the V chord, though it turns out the voice-leading procedures apply to any chords related by a fourth or fifth.

The V chord is the most important harmony in the tonal universe besides I. In the near future we will look at how the V-I progression punctuates most phrases in Classical music.

To get started writing V-I progressions in 4 voices, there are 2 “procedures” you need to learn.

The Common-Tone Procedure

The absolute smoothest and simplest way to connect chords related by fourth or fifth is to take a common tone. It’s easy. Let’s start by making a I-V-I progression in C major.

a) Build your first chord with a complete triad on top (flipped any way you like) and a note in the bass.

\[
\begin{align*}
\text{I} & \quad \text{V} \\
C & \quad \text{G} \\
E & \quad \text{B} \\
\end{align*}
\]

b) Figure out which note belongs to both the I and the V chord. This is the common tone. If you are not yet confident with your diatonic triads you should spell out both triads above the staff.

\[
\begin{align*}
\text{C} & \quad \text{E} \\
\text{G} & \quad \text{B} \\
\text{D} & \\
\end{align*}
\]

I \quad V

c) Hold the common tone over in whatever voice it happens to be in.

\[
\begin{align*}
\text{I} & \quad \text{V} \\
C & \quad \text{G} \\
E & \quad \text{B} \\
\end{align*}
\]

d) Connect the other 2 upper voices to tones in the V chord. Both will slide either up or down by step. Make the bass cover the root and you are done.

\[
\begin{align*}
\text{I} & \quad \text{V} \\
C & \quad \text{G} \\
E & \quad \text{B} \\
\end{align*}
\]
The “Next-Closest” V-Chord

The Common-Tone Procedure makes the “closest” or “smoothest” possible connection between I and V. However, you may not want this particular connection - perhaps you want your top line to go up instead of down.

You can also safely make the “next-closest” connection, in which \textit{all upper parts move a third or less.}

Ultimately I think this “procedure” involves putting down a V voicing and inspecting it carefully to see that it meets this requirement.

\textit{The next-next closest = wrong.}

If you choose a connection in which one of the voices moves \textit{more than a third} (namely a fourth or fifth), it’s going to make a bad parallels with the bass (parallel 5ths or 8ves) or “badness by contrary motion” (5ths by contrary, 8ves by contrary.) We’ll talk more about these rules later, but in the meantime you should just avoid letting the upper voices move by 4th or 5th.
Other Progressions by 4th or 5th

You can also apply these procedures to I-IV-I progressions, and “circle-of-fifths” progressions. These are also very common in music. All of these progression belong in the same category because the chords are a fourth or fifth away.