

# Chapter Six

## Root Position Part Writing

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### Introduction

We will begin our first efforts at tonal composition by exploring the relatively restricted environment of root position triads. Inverted triads, introduced in Chapters 8 and 9, will allow us to write more melodic bass lines, but for now we will have to accept the somewhat rigid contour of a root position bass. The inner voices, however, should be treated as melodies, even if they are seldom as interesting as the soprano line. It is especially important to observe even in the inner voices the rules concerning leaps that you learned in the previous chapter (see rule 4, p. 74).

Although you learned quite a bit about seventh chords in Chapters 3 and 4, we will not begin using them compositionally until Chapter 13. However, seventh chords will appear frequently in musical examples and Self-Test analysis problems as well as in exercises in the workbook, so you will have the opportunity to become better acquainted with them before we launch into their special voice-leading requirements.

We can reduce to four the number of different intervals that can separate the roots of any two chords. This is because a 2nd and a 7th, for example, are the same in this context because the part writing of the upper voices is the same whether the bass moves by a 2nd or by a 7th. The four combinations, then, are the following:

2nd apart (same as a 7th apart)

3rd apart (same as a 6th apart)

4th apart (same as a 5th apart)

same roots—a repeated chord

As we deal with these four combinations (which will be taken up in reverse order from the preceding list), the conventions followed in writing for three and four parts are presented. These conventions are not rules, but instead are tested recipes for successful part writing of chord progressions in root position, and you do not need to scan the texture for parallels or other problems when you follow them. Situations will occur when the melody or some other factor makes it impossible to follow the conventions, but this is fairly uncommon.

A major issue in part writing in the tonal style concerns which notes of a chord are doubled or even tripled. When we refer to a note being doubled or tripled, we mean that two or three of the parts are given that pitch class, although not necessarily in the same octave. For example, look at the Bach excerpt in Part B of Self-Test 5–3 (p. 86). The root of the first chord, G, is tripled in the alto, tenor, and bass. The root of the second chord, C, is doubled in the soprano and bass.

# Root Position Part Writing with Repeated Roots

## FOUR-PART TEXTURES

1. All members of the triad are usually present. The final I chord is sometimes incomplete, consisting of a 3rd and a tripled root.
2. The root is usually doubled. The leading tone ( $\hat{7}$ ) is almost never doubled because it is such a strong tendency tone (review p. 74).

## THREE-PART TEXTURES

1. The 5th of the triad is often omitted. The final I chord may consist only of a tripled root.
2. An incomplete triad will usually have the root doubled. The leading tone ( $\hat{7}$ ) is almost never doubled.

When a root position triad is repeated, the upper voices may be arpeggiated freely, as long as the spacing conventions are followed (review discussion of voicing a single triad, pp. 77–79). The bass may arpeggiate an octave. Example 6-1 illustrates appropriate part writing for repeated roots.

### Example 6-1

The musical notation for Example 6-1 is presented in two systems. The first system, labeled 'four parts', shows a grand staff with four voices. The right hand has two staves (treble and alto clefs) and the left hand has two staves (bass and tenor clefs). It illustrates a C major triad (C-E-G) with various voicings and arpeggiations. The second system, labeled 'three parts', shows a grand staff with three voices. The right hand has two staves (treble and alto clefs) and the left hand has one staff (bass clef). It illustrates a C major triad with the root doubled in the bass and various voicings in the upper voices.

## Self-Test 6-1 Using repeated roots.

(Answers begin on page 617.)

Test your understanding of the preceding section by filling in the inner voice or voices in the second chord of each pair. The key is C major throughout.

The musical notation for Self-Test 6-1 is presented in two systems, both labeled 'four parts'. The first system shows a grand staff with four voices. The right hand has two staves (treble and alto clefs) and the left hand has two staves (bass and tenor clefs). It illustrates a C major triad with various voicings and arpeggiations. The second system shows a grand staff with four voices. The right hand has two staves (treble and alto clefs) and the left hand has two staves (bass and tenor clefs). It illustrates a C major triad with various voicings and arpeggiations.

three parts

The image shows a musical score for three parts. The top staff is in treble clef and the bottom staff is in bass clef. The music consists of five measures. The first measure has a treble staff with a half note G4 and a bass staff with a half note E3. The second measure has a treble staff with a half note A4 and a bass staff with a half note F3. The third measure has a treble staff with a half note B4 and a bass staff with a half note G3. The fourth measure has a treble staff with a half note C5 and a bass staff with a half note A3. The fifth measure has a treble staff with a half note D5 and a bass staff with a half note B3. Vertical bar lines separate the measures.

Exercise 6-1 See Workbook.

## Root Position Part Writing with Roots a 4th (5th) Apart

As you will learn in the next chapter, one of the most fundamental root movements in tonal music is that of the descending P5 (or ascending P4). The part-writing principles involved in this root movement are identical to those concerned with the ascending P5 (or descending P4). Other principles that must always be kept in mind are those concerning spacing, parallelism, and the resolution of  $\hat{7}$  to  $\hat{1}$  when  $\hat{7}$  occurs in the melody.

### FOUR-PART TEXTURES

1. **Common tone and stepwise.** One method for writing this root relationship in four parts is to keep in the same voice the tone that is common to both chords, whereas the remaining two upper parts move by step in the same direction. The stepwise motion will be ascending for root movement of a P5 down (Ex. 6-2a) and descending for root movement of a P5 up (Ex. 6-2b). The purpose of the ties here and in subsequent examples is only to point out the common tones and not to imply that they must be tied.

#### Example 6-2

The image shows two examples of root movement in four-part texture. Example (a) shows a descending P5 root movement from C major (V) to C minor (I). The treble staff has a half note G4 tied to the next measure, and a half note E4 moving up to F4. The bass staff has a half note C3 moving up to D3. Example (b) shows an ascending P5 root movement from C major (IV) to C minor (I). The treble staff has a half note G4 tied to the next measure, and a half note E4 moving down to D4. The bass staff has a half note C3 moving down to B2. Vertical bar lines separate the two examples.

C: V I IV I

2. **Similar motion by 2nd or 3rd.** A second method moves all three upper parts in the same direction, with no leap larger than a 3rd. The motion will be descending for a root movement of a P5 down (or a P4 up) and ascending for a root movement of a P5 up (or P4 down). Notice that the leading tone in Example 6-3c does not resolve to  $\hat{1}$  but instead leaps down to  $\hat{5}$ . This is perfectly acceptable if it occurs in an inner voice, as it does here.

### Example 6-3

Example 6-3 illustrates three methods of voice leading between chords in C major. The notation shows three measures, each with two staves (treble and bass clef). Measure a shows a progression from I to IV. Measure b shows a progression from I to V. Measure c shows a progression from V to I. The leading tone in measure c is highlighted with a blue box and an arrow pointing to the fifth of the final chord, indicating a leap down.

C: I IV I V V I

3. **Tertian leap, common tone, stepwise.** A third method, although not as smooth as the first two, is useful for changing between close and open structures. As in the first method, we keep in the same voice the tone that is common to both chords, but the voice that has the 3rd in the first chord leaps to provide the 3rd in the second chord. The remaining voice moves by step. Notice that the leading tone in Example 6-4c does not resolve to  $\hat{1}$  but instead leaps up to  $\hat{3}$ . As with Example 6-3c, this is perfectly acceptable if it occurs in an inner voice.

### Example 6-4

Example 6-4 illustrates three methods of voice leading between chords in C major, focusing on the relationship between close and open structures. The notation shows three measures, each with two staves (treble and bass clef). Measure a shows a progression from I to IV, labeled 'close' and 'open'. Measure b shows a progression from I to V, labeled 'open' and 'close'. Measure c shows a progression from V to I, labeled 'open' and 'close'. The leading tone in measure c is highlighted with a blue box and an arrow pointing to the third of the final chord, indicating a leap up.

C: I IV I V V I

## THREE-PART TEXTURES

The more flexible nature of three-part writing makes it impossible to distill a few conventional methods, as was done for four-part textures. Remember that each chord must con-

tain at least a root and 3rd, and observe conventions concerning spacing and parallelism (Ex. 6-5). Aim for smooth voice leading instead of complete chords.

**Example 6-5**

Bb: I IV I IV I IV I IV

**Self-Test 6-2 Using roots a 4th (5th) apart.**

(Answers begin on page 618.)

A. Add alto and tenor parts to each of the following exercises. Each progression involves roots a P5 (P4) apart. Use one of the three methods outlined on pages 91–93 in each case, and state which you have used (1, 2, or 3).

1 d: i iv  
2 A: vi ii V I  
3 Bb: ii V I IV

4 e: V i iv i  
5 F: I IV I V  
6 G: I V I IV I

B. Add an alto part to each example. Be careful to observe conventions concerning spacing, parallels, and doubling. Each triad should include at least a root and a 3rd.

1  
G: I V I IV I

2  
Eb: vi ii V I

3  
d: i iv i

Exercise 6-2 See Workbook.

## Root Position Part Writing with Roots a 3rd (6th) Apart

The voice leading that involves root position triads a 3rd or 6th apart is usually quite smooth because the two triads will always have two pitch classes in common.

### FOUR-PART TEXTURES

**Two common tones and stepwise.** Assuming that the first of the two root position triads has a doubled root, only one of the upper voices will need to move. The two upper voices that have tones in common with the second chord remain stationary, whereas the remaining voice moves by step. The stepwise motion will be upward for roots a descending 3rd apart (Ex. 6-6a) and downward for roots an ascending 3rd apart (Ex. 6-6b).

Example 6-6

a  
G: I vi

b  
G: I iii

### THREE-PART TEXTURES

Commonly encountered part-writing situations are more diverse in three-part textures. Some possibilities are illustrated in Example 6-7. Especially tricky is the ascending root movement. In that case, you should not omit the 5th of the second chord because the listener might assume that the music has progressed only from a root position triad to an inverted form of the same triad (compare Ex. 6-7c and d with Ex. 6-7e and f).

**Example 6-7**

F: I vi I vi I iii I iii I iii? |6? I iii? |6?

**Self-Test 6-3 Using roots a P4th (P5th) and 3rd (6th) apart.**

(Answers begin on page 619.)

A. Add alto and tenor parts to each exercise. Use the smoothest voice leading in each case. For roots a 4th (5th) apart, state which method you have used.

Bb: vi IV ii V F#: i VI iv i G: I iii vi ii V - I

B. Add an alto part to each exercise. Be careful to observe the conventions concerning parallels, spacing, and doubling.

A: I iii vi IV d: i III VI iv i Bb: I vi IV I V I

## Root Position Part Writing with Roots a 2nd (7th) Apart

Two triads with roots a 2nd (or 7th) apart have *no* pitch classes in common, so every part must move from the first chord to the second. In this discussion we will assume that the bass moves by 2nd rather than by 7th.

### FOUR-PART TEXTURES

**Contrary to the bass.** If the root is doubled in the first chord, as is usually the case, the voice leading is usually quite simple: If the bass moves up by step, the upper voices move down to the nearest chord tone (Ex. 6-8a), whereas if the bass moves down by step, the upper voices move up to the nearest chord tone (Ex. 6-8b).

#### Example 6-8

The progression V–vi (or V–VI) is known as the **deceptive progression**, for reasons that will become clear in the next chapter. In terms of voice leading, deceptive progressions present some special problems. In most cases the leading tone ( $\hat{7}$ ) moves parallel with the bass, resolving up to tonic ( $\hat{1}$ ), whereas the other two voices move down, contrary to the bass, to the next available chord tones. This results in a doubled 3rd in the vi (or VI) chord, as in Example 6-9a and b. In the major mode, if the leading tone is in an inner voice, it may move down by step to  $\hat{6}$ , as in Example 6-9c, because the lack of resolution is not so apparent to the ear. This is not acceptable in the minor mode, however, because of the awkward interval of a +2 that results, as in Example 6-9d.

#### Example 6-9

a                      good                      b                      good                      c                      good                      d                      poor  
 G:    V            vi                      g:    V            VI                      G:    V            vi                      g:    V            VI



The voice leading away from a triad with a doubled 3rd must be handled carefully because the conventions discussed in this chapter all assume doubled roots.

Example 6-10 provides two examples of the deceptive progression, one in B $\flat$  and one in g. In the first one, the V–vi progression in B $\flat$ , the leading tone is in an inner voice (the alto), and Bach avoids resolving it to tonic (as in Ex. 6-9c). Remember that this is *only* practicable when in major mode with the leading tone in an inner voice. In the V–VI progression, where the key has shifted to g, Bach resolves the leading tone to tonic, resulting in a doubled 3rd in the VI chord (as in Ex. 6-9b).

**Example 6-10** Bach, *Herr Christ, der ein'ge Gott's-Sohn*

B $\flat$ : I IV I V vi ii $\circ$  $\frac{6}{5}$  V VI

**THREE-PART TEXTURES**

The smoothest voice leading will find a complete triad followed by a triad with two roots and a 3rd (Ex. 6-11a and b) or a triad consisting of two roots and a 3rd followed by a complete triad (Ex. 6-11c and d). In other words, with roots a 2nd apart, the sequence will usually be complete to incomplete or incomplete to complete. Remember to resolve  $\hat{7}$  to  $\hat{1}$  in the V–vi progression—with the possible exception of cases in which  $\hat{7}$  is in the inner voice in a major key.

**Example 6-11**

C: IV V vi V IV V vi V

# CHECKPOINT

1. How many pitch classes are shared between triads with roots a 2nd apart? A 3rd apart? A 4th or 5th apart?
2. Describe the three methods of connecting triads with roots a 4th or 5th apart.
3. What is usually doubled in the second chord of a V–vi (or V–VI) progression? What is the possible exception to this?

## Self-Test 6-4 Using all root relationships.

(Answers begin on page 619.)

- A. Complete each progression. Make two versions of each: one for three parts (adding an alto) and one for four parts (adding alto and tenor). In the four-part versions, state which method you have used for any progression by 4th or 5th.

G: I vi IV d: i iv V A: I vi ii e: i V VI Bb: iii vi V

- B. Fill in alto and tenor parts in these two exercises. For roots a 4th (5th) apart, state which method you have used.

1

Eb: I vi V I IV I IV V - I

2

b: V i VI iv V VI iv V - i

\*

\* The given soprano here and elsewhere might make it impossible to follow the conventions. Watch out for parallels and spacing, and double the root in most cases.

- C. Name the keys and analyze the chords specified by these figured basses. Then compose a good melody line for each. Finally, fill in alto and tenor parts to make a four-part texture.

1

2

Exercise 6-4 See Workbook.

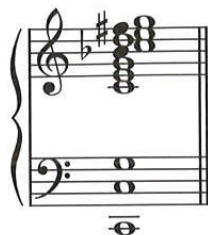
## Instrumental Ranges and Transpositions

Many of the exercises suggest that you compose examples for combinations of instruments in your class, and your instructor may make additional assignments that also call for instrumental combinations. To carry out these assignments successfully, you will need to understand the ranges and transpositions of the various instruments.

Appendix A provides suggested ranges for many of the instruments for which you may want to write. A “written range” is given next to the “sounding range” for each instrument in Appendix A. This is necessary because, strange as it might seem at first, players of certain instruments of the band and orchestra do not read music at concert pitch. This means that the notes that they read in their parts produce pitches that are higher or lower than the notes that have the same names on the piano.

The reasons that we have transposing instruments are somewhat complicated, but we will try to explain two of them here as examples. The French horn was originally a valveless instrument that could play only the notes of the harmonic series. A harmonic series with C2 as a fundamental is illustrated in Example 6-12. The filled-in noteheads represent pitches that are quite out of tune in comparison to the modern equal-tempered system.

### Example 6-12

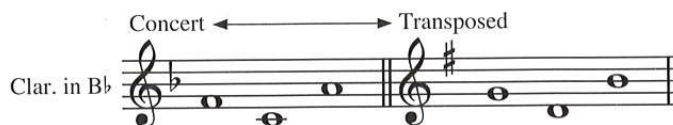


To play in different keys, the horn player had to insert the proper **crook**, a piece of tubing of a precisely calculated length. A longer crook lowered the instrument's **fundamental** and, correspondingly, its harmonic series, whereas a shorter crook did the reverse. No matter what crook was used, it was the custom to write for the horn as if it were in the key of C so that the C fundamental and its familiar harmonic series would remain unchanged. This practice was retained even after valves were introduced and the horn settled into its modern F fundamental.

Perhaps an easier example to understand is the saxophone family, which consists of eight different instruments, each of which has a different sounding range (only two of the saxophones are included in Appendix A). To make it easier for players to “double”—to switch from one saxophone to the other—saxophone music is written as if all saxophones had the same range, with the result that a written G4, for example, is fingered the same way on every saxophone.

Naturally, a musician has to understand transpositions thoroughly to compose, arrange, conduct, or read instrumental music. To write music that you have composed or arranged from concert pitch for a transposing instrument, follow the instructions under “written range” in Appendix A. To write music from a transposing instrument into concert pitch, you have to reverse the process. Example 6-13 illustrates this. Notice that key signatures are transposed as well.

### Example 6-13



If you don't have Appendix A or a similar guide handy, remember that a transposing instrument “sees a C but sounds its key.” This means that a horn player who sees a C will sound an F because the French horn is pitched in F. To go from concert pitch to the transposed part, remember that “to hear its key, you must write a C.”

One procedure to use when writing for an ensemble is this:

1. Notate the sounding ranges of the performers at the top of your page of manuscript paper.
2. Compose the exercise in the form of a reduced score on as few staves as practicable. Keep an eye on the ranges.
3. Provide enough copies for the ensemble so that players will not have to huddle around a single stand. Instrumental parts should be copied onto separate sheets using correct transpositions.

# Self-Test 6-5

(Answers begin on page 621.)

A. Notate the chords below for the specified instruments. Each chord is written at concert pitch, so transpose as needed for the performers. Note that the instruments are listed in **score order**, the order used in Appendix A, which is not always the same as order by pitch. Use the correct clef for each instrument.

Fl.      Ob.      Tpt. in B $\flat$       Tpt. in B $\flat$       Hn. in F  
 Clar. in B $\flat$       A. Sax.      A. Sax.      Hn. in F      Vc.  
 Bsn.      T. Sax.      Trb.      Tuba      D.B.

Fl.	Ob.	A. Sax.	Hn. in F	Hn. in F
Clar. in B $\flat$	A. Sax.	Tpt. in B $\flat$	Tpt. in B $\flat$	Vc.
Bsn.	T. Sax.	Trb.	Tuba	D.B.

B. Here is a short chord progression to use in these exercises:

F: I vi ii V I

1. Make an arrangement for two alto saxophones and one tenor saxophone. Copy out the parts, using correct transpositions.
  2. Make a four-part arrangement for SATB chorus.
- C. Write a version of the following excerpt on a grand staff by transposing the parts to concert pitch. Play your version on the piano and analyze the harmonies if you can (there are some nonchord tones, so be sure to listen carefully).

E $\flat$  Alto Sax  
 B $\flat$  Tenor Sax  
 B $\flat$  Trumpet  
 Trombone

Exercise 6-5 See Workbook.



## Summary

The possible relationships between the roots of any two triads can be reduced to four. Part-writing conventions involving all four relationships are discussed in terms of both three- and four-part textures on the pages indicated next.

Repeated roots, p. 90.

Roots a 4th (or 5th) apart, pp. 91–93.

Roots a 3rd (or 6th) apart, pp. 94–95.

Roots a 2nd (or 7th) apart, pp. 96–97.

Whereas the 5th of the triad is frequently omitted in three-part textures, this is seldom found in four-part textures, with the exception of the final I chord. In most cases, when a member of the chord is *doubled*, the doubled tone is the root. However, in the V–vi (or V–VI) progression, the 3rd of the vi chord is usually doubled.

You will need to understand instrumental transpositions if you want to write instrumental music or read instrumental scores. For various reasons, many musical instruments do not sound where written; instead, the music must be transposed, either *from* concert pitch so that you can notate the part or *to* concert pitch so that you can understand the score. Appendix A provides ranges and transpositions for a number of different instruments.