

# Chapter Nine

## Triads in Second Inversion

### Introduction

It would be logical to assume that second inversion triads are used in tonal music in the same ways as first inversion triads: as bass arpeggiations and as substitutes for the root position. However, this is only partly true. Although both first and second inversion triads are created through bass arpeggiations, second inversion triads are *not* used as substitutes for the root position. The reason is that the second inversion of a triad is considered to be a much less stable sonority than either of the other two bass positions. For centuries before the development of tonal harmony, the interval of a P4 had been considered a dissonance if the **lowest voice** in the texture was sounding the bottom pitch of the P4. Although each of the sonorities in Example 9-1 contains a P4 (or a P4 plus a P8), the first two are considered to be consonant because the interval of a P4 does not involve the lowest voice (review the discussion of the diminished triad in first inversion on p. 119–120). The other two sonorities are dissonant in the tonal style, although our twentieth-century ears might not easily hear the dissonance.

#### Example 9-1

The musical notation shows four triads in second inversion in G major, each with its figured bass notation below it. The first two are labeled 'consonant' and the last two are labeled 'dissonant'.

Label	Figured Bass
consonant	5/3
consonant	6/3
dissonant	6/4
dissonant	6/4

Notice that diminished and augmented  $\frac{6}{4}$  chords would also contain dissonant intervals above the bass—an +4 and a  $^{\circ}4$ , respectively.

Because the composers of the tonal era recognized the instability of the  $\frac{6}{4}$  (six-four) chord (the only position in which there is a 4th above the bass), the chord is not used as a substitute for the more stable root position or first inversion sonorities. It is used in bass arpeggiations as well as in several other contexts to be described below. In fact, if you use a six-four chord that is *not* representative of one of the four categories discussed below, it would probably be considered an incorrect usage in this style.

## Bass Arpeggiation and the Melodic Bass

As with triads in first inversion, six-four chords may come about through a bass arpeggiation involving a root position triad, a first inversion triad, or both (Ex. 9-2).



### Example 9-2

Mendelssohn, *Symphony No. 4, Op. 90, I*

E: I (6/4) (6) (6/3)

Your analysis of the “real” bass note will depend on the context, taking into account such factors as metric placement, duration, and register. The figures in parentheses in Example 9-2 are often omitted when analyzing a passage employing an arpeggiated bass.

Another somewhat incidental way in which six-four chords can be formed is through a melodic bass. If the bass part has an important melodic line instead of fulfilling its usual supporting role, any number of inverted chords may result. Because a melodic bass is no longer the harmonic foundation of the texture, inversions should not be indicated in such a passage. For example, the bass melody in Example 9-3 is accompanied only by repeated A’s and C’s, implying the tonic harmony in F major. It would not be correct to analyze the excerpt as beginning with a  $I_4^6$ .



### Example 9-3

Beethoven, *String Quartet Op. 59, No. 1, I*

Allegro

Violino I

Violino II *p*

Viola *p*

Violoncello *mf e dolce*

F: I

## The Cadential Six-Four

Besides its appearance in a bass arpeggiation or a melodic bass, the six-four chord tends to be used in three stereotyped contexts. If you compare the two halves of Example 9-4 below, you can see that they have much in common. Both begin with a tonic triad and end with a V-I progression. In Example 9-4b, however, the movement from  $ii^6$  to V is momentarily delayed by a  $I_4^6$  in a *metrically stronger position*. This is a very typical illustration of the cadential six-four, the most familiar of all six-four uses. Notice that the  $I_4^6$  resolves to a *root position* V chord. Other resolutions of the cadential six-four will be introduced in Chapters 13 and 17.

### Example 9-4

E: I  $ii^6$  V I      I  $ii^6$   $I_4^6$  V I

Theorists have long debated whether it is better to analyze the cadential six-four as  $I_4^6-V$  or simply as V, treating  $\hat{1}$  and  $\hat{3}$  as non-chord tones. On the one hand, all the notes of the tonic triad *are* present, but on the other hand, the *function* of the cadential  $I_4^6$  is clearly decorative: It does not substitute for the root position tonic but instead delays the arrival of the V chord. The analytical symbols used in Example 9-4 and throughout this text are a compromise and reflect the validity of both schools of thought.

The voice leading in the upper parts into and away from the cadential  $I_4^6$  is usually smooth, as in Example 9-4, and the resolution of the  $I_4^6$  to V (or  $V^7$ ) usually sees scale degrees  $\hat{1}$  and  $\hat{3}$  moving down by step to  $\hat{7}$  and  $\hat{2}$ , respectively. The cadential  $I_4^6$  occurs either on a stronger beat than the V, as in Example 9-4, or on a stronger *portion* of the beat, as in Example 9-5. The textural reduction shows that Scarlatti's three-voice texture is actually derived from four voices.


**Example 9-5**
*Scarlatti, Sonata, L. 489*

g: i ii°6  $I_4^6$   $V^7$  etc.

**Textural reduction**

However, in triple meter, if the V chord occurs on the third beat of a measure, the  $I_4^6$  will frequently appear on the normally weak second beat, as in Example 9-6. (This is also a four-voice texture. The arpeggiations disguise parallel octaves from the  $I_4^6$  to the  $ii^6$ .)


**Example 9-6**
*Scarlatti, Sonata, L. 363*

D: I ( $v_6^6$ )  $I_6^6$   $ii^6$   $I_4^6$   $V^7$  I

The most dramatic demonstration of the delaying character of the cadential  $I_4^6$  is found at the cadenza of many solo concertos. In such cases, the orchestra stops on a  $I_4^6$ , after which the soloist performs the cadenza. No matter what the length of the cadenza, it eventually reaches V and, simultaneously with the return of the orchestra, resolves to I. In a cadenza played by a single-line instrument, the V chord at the end of the cadenza will often be represented by a single tone or a trill, as in Example 9-7.



## Example 9-7

Mozart, Violin Concerto K. 271a, III

496

Ob.

Hn. in D

Solo VI.

Vn.

Vla.

Vc. D.B.

D: IV I<sup>6</sup> IV<sup>6</sup> I<sup>4</sup> V I

cadenza

Solo

*p*

*p*

*p*

*tr*

*tr*

## The Passing Six-Four

Second inversion triads are frequently encountered harmonizing the middle note of a three-note scalar figure in the bass, a usage that is called a *passing six-four* chord. The figure may be ascending or descending. Although any triad may be used as a passing six-four chord, those in Example 9-8 are the most common and are found in both major and minor modes. The passing six-four usually falls on a *weak* beat and typically features smooth voice leading, as in Example 9-8. As with the cadential six-four, some theorists prefer not to assign a roman numeral to passing six-fours because of their weak harmonic function. In this text we will indicate this weak function by putting such roman numerals in parentheses.

**Example 9-8**

A: I (v<sub>4</sub><sup>6</sup>) I<sup>6</sup> IV<sup>6</sup> (I<sub>4</sub><sup>6</sup>) ii<sup>6</sup>

Example 9-9 contains both a passing I<sub>4</sub><sup>6</sup> (m. 25) and a cadential I<sub>4</sub><sup>6</sup> (m. 27) in a three-part texture. The first inversion chords in mm. 24–26 are all substituted first inversions. Notice that the melody in mm. 24–27 is an embellished stepwise descent from A5 to B4.



**Example 9-9** Mozart, Sonata K. 309, III

C: I<sup>(6)</sup> IV I<sup>6</sup> IV<sup>6</sup> (I<sub>4</sub><sup>6</sup>) ii<sup>6</sup> I<sub>4</sub><sup>6</sup> V

Textural reduction

Longer stepwise motions in the bass often use passing six-four chords, as in Example 9-10. The textural reduction shows that the melody is also essentially stepwise and moves for several measures in parallel 6ths with the bass.



**Example 9-10**

Mozart, *Symphony No. 40, K. 550, IV* (piano score)

Textural reduction

## The Pedal Six-Four

One way of elaborating a static root position triad is to move the 3rd and 5th of the triad up by step then back down by step to their original positions. The sonority that results is a six-four chord (Ex. 9-11).

**Example 9-11**

Because this elaboration is similar to a pedal point (discussed in Chapter 12), it is called a *pedal six-four* (some theorists call it an embellishing or stationary six-four). The roman numeral beneath a pedal six-four is put in parentheses to indicate its weak harmonic function.

Pedal six-four chords usually work exactly like those in Example 9-11. That is, they involve either a  $I-(IV_4^6)-I$  progression or a  $V-(I_4^6)-V$  progression, with the six-four chord falling on a weak beat and with stepwise voice leading into and away from the six-four chord. Exceptionally, the bass may move after the six-four chord and before the return of the root position triad, as in Example 9-12.



### Example 9-12 Mozart, Quartet K. 465, I

As with other types of six-four chords, pedal six-fours are occasionally seen in lead-sheet notation. Example 9-13 contains a clear instance of a pedal six-four in a  $I-(IV_4^6)-I$  progression.



### Example 9-13 Webber, "Don't Cry for Me, Argentina"

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## CHECKPOINT

1. Two ways in which six-four chords are produced is through bass arpeggiation and by a melodic bass. Name the three other kinds of six-four chords discussed in this chapter.
2. The cadential six-four chord precedes what root position triad?
3. What two triads are most often used as passing six-four chords?
4. The pedal six-four usually involves one of two progressions. What are they?



## Part Writing for Second Inversion Triads

In a four-part texture, the bass (5th of the chord) should be doubled. Exceptions to this are rarely encountered in tonal music. The other voices generally move as smoothly as possible—often by step—both into and out of the six-four chord. In a three-part texture, it is generally best to have all members of the triad present (Ex. 9-14a), but sometimes the root or 3rd is omitted, in which case the 5th is doubled (Exx. 9-14b and 9-14c).

### Example 9-14

e: V (i<sup>6</sup><sub>4</sub>) V  $\frac{4}{2}$  i<sup>6</sup> ii<sup>o6</sup>  $\frac{i^6_4}{V}$  V<sup>7</sup> i ii<sup>o6</sup>  $\frac{i^6_4}{V}$  V i

### Self-Test 9-1

(Answers begin on page 589.)

A: Analysis. In addition to the specific instructions for each example, label each six-four chord by type.

1. Label the chords with roman numerals. Be sure to include the F#5 at the beginning of m. 69 and m. 70 as a chord member.



Mozart, Piano Sonata K. 333, III

(f)

(f)

2. Label the chords with roman numerals. Remember to label the type of any six-four chords you find.



Handel: Suite No. 5 in E Major, "Air"

E:

1 2 3 4 5 6 7 8 9

10 11 12 13 14 15 16 17 18 19 20

3. Label the chords with roman numerals.



Bach, "Wenn mein Stündlein vorhanden ist"

B. Fill in one or two inner parts, as specified. Identify any six-four chords by type.

F: I<sup>6</sup> ii<sup>6</sup>  $i_4^6$  V I b: i iv<sup>6</sup> ( $i_4^6$ ) iv V G: I ( $IV_4^6$ ) I V<sup>6</sup> IV<sup>6</sup> V<sup>6</sup> I

C. Realize these figured basses for three or four voices, as specified. Notice the frequent use of  $\frac{5}{3}$  (or the equivalent, such as  $\frac{5}{7}$ ) to indicate a root position triad following an inverted chord. Analyze with roman numerals and label six-four types.

6/4 6 6 6/4 5/3 6 6/4 5/3

6 b 6/4 5/b 6/4 6 6/4 5/b

Exercise 9-1 See Workbook.

## Summary

Six-four chords may come about incidentally through bass arpeggiation, or they may occur if the melody is in the bass. However, in other contexts, triads in second inversion are treated in special ways in tonal music because the six-four chord is considered dissonant in this style.

The **cadential six-four chord** is a tonic six-four that delays the arrival of the V chord that follows it. It depends totally on the V chord for its meaning, and it should not be

thought of as a substitute for a tonic triad in root position or first inversion. The accidental six-four occurs in a metrically stronger position than the V chord that it delays.

A **passing six-four chord** harmonizes the middle note of a three-note scalar figure in the bass. The most common passing six-four chords are the  $V_4^6$  and the  $I_4^6$  chords, and they tend to fall on a weak beat.

A **pedal six-four chord** elaborates the root position chord that precedes it and usually follows it as well. Most pedal six-four chords are  $I_4^6$  or  $IV_4^6$  chords.

The voice leading into and out of a six-four chord is usually as smooth as possible, with stepwise motion prevailing. In a four-voice texture, the bass (5th of the chord) is almost always doubled.