

Introduction to Diatonic Harmony

WITH THIS CHAPTER we begin our study of harmony and voice leading in the common-practice period. The general concepts introduced in this chapter will provide the necessary foundation for the more detailed study of individual chords and their tonal function in succeeding chapters. These concepts include the different types of chords employed in tonal harmony; the use of Roman numerals for analysis; the principle of harmonic tendency, or the inclination of certain chords to move to certain other chords; and the influence of linear sequences on harmonic function.

Part Two will concentrate on diatonic procedures; Parts Three and Four will introduce chromatic techniques. Some chapters in Part Two will examine the use of specific diatonic chords, others will focus on linear issues, and others will discuss related topics such as phrase groupings, metric issues, modulation, and sequences.

ASPECTS OF HARMONY

Our examination of diatonic chord progressions grows out of the material introduced in Part One and embraces a number of different aspects of harmony. The most important of these are listed below.

1. The various *chord types* used in tonal harmony: the four forms of triads—major, minor, diminished, and augmented—and the five forms of seventh chords presented in Chapter 4.
2. The use of *Roman numerals* to designate the scale degrees on which chords are constructed.
3. *Harmonic function*, or the way in which chords interact and relate to each other.
4. *Harmonic tendency*, or the tendency of certain chords to progress to certain other chords.
5. *Root movement*, or the intervallic distance between the roots of consecutive chords.
6. *Melodic figuration*, or the use of different kinds of consonant and dissonant embellishing tones.
7. *Partwriting* in harmonic progressions, or the connection between the various voice parts of successive chords.
8. *Voice leading*, or the way in which melodic lines and vertical chords interact within the larger harmonic context.

We will introduce only the first five topics in this chapter; the others will be discussed in later chapters. You will find that your knowledge of these aspects of harmony will help you better understand the music you are playing or singing.

ROMAN NUMERALS

We have previously used commercial chord symbols to identify chord roots, types, and inversions in harmonic progressions. Although these symbols provide useful information, they do not relate the chords in a particular key to the central tonic or to each other, nor do they give us any indication of the possible function of the various harmonies. Since the nineteenth century, musicians have found that **Roman numerals** are better suited for this purpose. The following two rules explain how Roman numerals are applied to specific harmonies.

1. First, the Roman numeral denotes the *scale degree* that serves as the root on which the triad is constructed. Thus, a Roman numeral I designates a triad built on the first scale degree ($\hat{1}$), IV designates the triad built on the fourth scale degree, and so forth.
2. Uppercase and lowercase Roman numerals as well as other symbols, are used to indicate the *chord type* of a triad.

GUIDELINES FOR USING ROMAN NUMERALS

Uppercase Roman numerals stand for major triads—I, IV, and V in the major scale.

Lowercase Roman numerals stand for minor triads—ii, iii, and vi in the major scale.

Lowercase Roman numerals with superscripts stand for other classes of triads, such as the diminished triad on the seventh scale degree in the major scale—vii^o.

Uppercase Roman numerals with superscripts stand for other classes of triads, such as the diminished triad on the seventh scale degree in the major scale—VII^o.

Example 8.1 shows the triads built on the notes of the diatonic scale, along with their Roman numeral designations, for both C major and C minor. Note that in the minor mode, because the sixth and seventh scale degrees appear in both lowered and raised form, there are two distinct forms, major and minor, of the subdominant and dominant triads, as well as two triads built on the seventh degree: the vii^o built on the leading tone, and the VII built on the subtonic or flat $\hat{7}$.

Example 8.1

A.

C: I ii iii IV V vi vii^o I

B.

c: i ii^o III iv IV v V VI VII vii^o i

3. *Inversions* of chords are designated by the figured-bass symbols for inversions: $\overset{6}{}$ for a first-inversion triad, $\overset{6}{4}$ for a second-inversion triad, and the symbols for inversions of 7th chords— $\overset{6}{5}$ for first inversion, $\overset{4}{3}$ for second inversion, and $\overset{4}{2}$ for third inversion. Thus, in C major ii $\overset{6}{}$ designates a first-inversion minor triad built on D, and V $\overset{4}{2}$ designates a third-inversion G seventh chord (see Example 8.2).

Example 8.2

Figured-bass symbols and Roman numerals for Example 8.2:

System 1 (C major): V^6 I $vii^{\circ 6}$ I^6 vi ii^6 V I f: i VI i^6 iv

System 2 (C minor): V^6 i $vii^{\circ 6}$ V I

Although figured-bass symbols and the Roman numeral system share these designations of inversions, the two systems should not be confused. Figured-bass numbers are concerned with what notes to play above the bass note; the Roman numeral system is concerned primarily with the scale degree of the triad and indirectly with the harmonic function of the chord.

Although they are more descriptive than commercial chord symbols, Roman numerals tell us very little about harmonic function. To determine how a chord functions, we must understand how it operates in a particular harmonic context. In the chapters that follow, we will learn to distinguish between essential and embellishing chords in harmonic progressions, just as we distinguished in Chapter 7 between essential chord members and those tones which embellish them.

HARMONIC TENDENCY

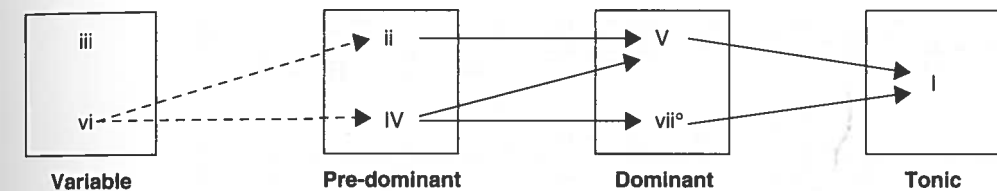
In tonal music, certain chords have an inclination to progress to certain other chords. We call this propensity **harmonic tendency**. The various diatonic chords fall into four basic categories of harmonic tendency.

1. The **tonic**, abbreviated as T or the I chord. The tonic is the chord to which all other harmonies tend to progress or gravitate.

2. The **dominant**, abbreviated as D, which includes V, vii° , and their seventh chords. These chords tend to progress or gravitate directly to the tonic.
3. The **pre-dominant**, abbreviated as PD, which includes IV, ii, and their seventh chords. These chords tend to progress or gravitate directly to some dominant harmony.
4. Since the tendencies of the remaining iii and vi chords are less focused and more variable in their sense of harmonic motion, we will not assign them a specific category. They often precede pre-dominant chords, substitute for the tonic or dominant, or serve as connector chords, linking harmonies of different functions.

These harmonic tendencies are summarized in Figure 8.1. Although the Roman numerals refer to triads in the major mode, the diagram applies equally to the minor mode.

Figure 8.1



THE UNDERLYING BASIS FOR HARMONIC TENDENCY

The continual recurrence of certain chord progressions in tonal music has conditioned our sense of harmonic tendency, so that we tend to take such normative progressions for granted. However, there is an underlying basis for harmonic tendency. We will focus on two of its aspects: (1) the tendency of an active scale degree ($\hat{2}$, $\hat{4}$, $\hat{6}$, or $\hat{7}$) in a chord to move to a more stable scale degree ($\hat{1}$, $\hat{3}$, or $\hat{5}$) in the following chord; and (2) the frequent occurrence of chordal roots which progress by descending 5ths.

The chords in the dominant family (V, vii° , and their seventh chords) contain two tendency tones—the leading tone, which wants to move to the tonic by half-step motion ($\hat{7}-\hat{8}$), and the supertonic, which likewise tends to move to the tonic ($\hat{2}-\hat{1}$). In addition, both the V and V^7 resolve to I by a **root movement** that descends a perfect 5th. In Example 8.3, play the first two chords (up to the brackets) of each progression and try to imagine how the second chord will resolve to I. Then play the third chord to confirm this resolution. All of the progressions are in C major.

Example 8.3

C: I V I I⁶ vii⁶ I I V⁷ I
 T D T T D T T D T

The most active scale degree in the pre-dominant family (IV, ii, and their seventh chords) is the submediant ($\hat{6}$), which tends to move stepwise downward to the dominant ($\hat{6}$ - $\hat{5}$). Why do you think this motion is especially strong in the minor mode?¹ The other scale step common to IV and ii is the subdominant, which likewise tends to move stepwise upward to the dominant ($\hat{4}$ - $\hat{5}$) in progressions. In harmonic situations involving the V⁷, the $\hat{4}$ may tend to move downward stepwise to $\hat{3}$. Play through Example 8.4 as you did in Example 8.3.

Example 8.4

C: I IV V I I ii⁶ V I I⁶ ii⁷ V I
 T PD D T T PD D T T PD D T

Probably the most common root movement found in tonal progressions outlines a succession of descending 5ths whose eventual goal is the tonic. This 5th cycle, shown in Example 8.5, may originate from a vi or a iii chord, which then works its way through ii to V to I; in the minor mode the Roman numerals would be VI-ii^o-V-i. We will encounter many versions of this basic root motion between chords in the chapters that follow.

Example 8.5

C: I iii vi ii V I
 T PD D T

1. Because the distance between $\flat\hat{6}$ and $\hat{5}$ in the minor mode is only a minor 2nd.

THE INFLUENCE OF MELODIC SEQUENCES ON HARMONIC TENDENCY

Other forces may influence the harmonic tendency of chords. Play Example 8.6, noting the Roman numeral analysis.

Example 8.6

G: I V⁶ vi iii⁶ IV I⁶ V I

In this passage all the pre-dominant chords do not progress directly to the dominant—in measure 3, IV moves to I⁶. Nor do all the dominant chords progress directly to the tonic—in mm. 1 and 2, V⁶ moves to vi. Here the melodic motion of the outer voices (soprano and bass) plays an important role in determining the function of the chords. The progression in Example 8.6 employs a **sequence**—that is, a short melodic and harmonic pattern, shown here in brackets, that is successively restated on different scale degrees. In such sequences the strong linear direction of the melodic patterns tends to dictate the chordal succession and therefore overrides the chords' normal tendencies.

This passage provides a valuable lesson, for although Roman numerals provide us with a useful means for expressing harmonic tendency, assuming we know their tonic, dominant, and pre-dominant character, we should not be misled into thinking that all I chords operate as tonic harmony or all IV chords operate as pre-dominant harmony. Rather it is the musical context that ultimately determines the **harmonic function** of chords. We will explore this topic in much greater detail in the succeeding chapters.

HARMONIC MODELS

In order to establish the standard ways in which harmonies operate in the common-practice period, we will concentrate throughout the text on the more common or frequent harmonic idioms of tonal music. These idioms will be presented as four-voice harmonic and melodic **models** that can be applied to a wide range of compositions. They will use the familiar keys of C major and C minor so that we may easily compare different chords in later chapters, relating them to a single key center.

Succeeding chapters will discuss the function of scale degrees and chords in melodic lines and harmonic progressions, as well as provide analytical methods to express these functions. While the harmonic and voice-leading analyses introduced in the following chapters could be viewed as an end in themselves, they actually represent the means to an even more important goal—the proper *performance* of the music. The understanding of how a musical passage operates provides valuable clues for playing or singing it with understanding and sensitivity.

Each chapter will open with a presentation of the common, normative use of the particular chords and techniques under consideration, such as spelling, notation, customary inversions, doublings, and partwriting procedures. As the chapter proceeds, less common procedures will be introduced gradually; this material may be included or omitted at the discretion of the instructor. Each chapter closes with a discussion of melody harmonization, review terms and concepts, and a brief self-quiz.

Terms and Concepts for Review

root movement	dominant chords
partwriting	pre-dominant chords
voice leading	variable chords
Roman numerals	sequence
harmonic tendency	harmonic function
tonic chords	

A BRIEF REVIEW SELF-QUIZ

1. Match the number to the letter:

- | | |
|--|---|
| A. dominant | 1. 5th cycle |
| B. sequence | 2. diminished triad |
| C. scale degree on which chordal root is built | 3. restatement on different scale degrees |
| D. vii ^o | 4. intervals between chordal roots |
| E. vi-ii-V-I | 5. tends to progress to tonic |
| F. pre-dominant triads | 6. Roman numeral |
| G. root movement | 7. IV and ii |

2. For the two passages given in Example 8.7, provide (1) Roman numerals below the chords with figured-bass symbols to denote inversions, and (2) the tendency classification of each chord—tonic (T), dominant (D), pre-

dominant (PD), or variable function for vi and iii (Var). The first chord is completed for you.

Example 8.7

A.

D: I
T

B.

b: i
T

The Primary Triads:

TONIC, DOMINANT, AND SUBDOMINANT CHORDS

IN THIS CHAPTER we will begin our study of diatonic harmony by considering the tonic, dominant, and subdominant triads in both major and minor modes. For the present, we will restrict ourselves to studying these triads in the root position. This preliminary examination will allow us to observe how the harmonic tendencies of these chords operate, both at cadences and throughout phrases. We will discuss the standard partwriting procedures that connect these chords, and we will use simple voice-leading diagrams to demonstrate the melodic and contrapuntal relationships that occur between the soprano and bass parts. Finally, we will discuss introductory strategies for harmonizing melodies and filling out harmonic models.

TONALITY AS THE EXTENSION OF TONIC HARMONY

Works or movements composed during the common-practice or tonal period usually exhibit what we call **tonal closure**—that is, they begin and end in the same key with a triad built on $\hat{1}$, the tonic scale degree. We can view **tonality** as the melodic and harmonic extension of this tonic triad throughout the overall span of the composition. Each composition exhibits an individual, unique way of extending this tonic in musical space and time. Since this process involves both melody—that is, horizontal or contrapuntal lines—and harmony—vertical combinations or chords—we cannot focus on one element to the exclusion of the other, but must consider both dimensions working together.

THE PROLONGATION OF TONIC HARMONY

The most obvious way to extend the harmony from the opening tonic chord to the closing tonic chord is to maintain that single chord throughout the piece or section. In the music of the common-practice period, pieces based on a single tonic triad are rare. For one thing, our ears are accustomed to harmonic changes, and we enjoy the sometimes convoluted journey from the opening to the closing tonic. More important, there are ways to prolong tonic harmony that involve movement through additional chords.

Orchestral introductions to two famous operas are based on a single triad. The Toccata played before Monteverdi's *Orfeo* is a ceremonial fanfare based on a C major triad. A more famous example is the Prelude to Wagner's music drama *Das Rheingold*, which consists of a root-position $E\flat$ tonic chord prolonged over 250 measures. One passage from the Prelude, the leitmotive that represents the Rhine, appears in Example 9.1a. Note that the harmony is prolonged by several means, including **arpeggiation** of the chord (Arp.), **passing tones** (P), and **neighboring tones** (N). The arpeggiated chord tones are of course consonant, but both the passing and the neighboring tones are dissonant embellishing tones (Example 9.1b).

Example 9.1

A. WAGNER: PRELUDE TO *DAS RHEINGOLD*

Embellishing motion may involve chords as well as individual notes—a tonic chord may be prolonged by chords that result from simultaneous passing notes or neighboring notes, as well as movement from one spacing of the tonic chord to another, a chordal version of a melodic arpeggiation. Example 9.2a and its reduction in 9.2b show a prolongation of a C major triad that includes a passing chord, a neighboring chord, and an arpeggiated chord. The interaction between essential and embellishing chords will play an important part in our later study of harmony.

Example 9.2

THE TONIC, DOMINANT, AND SUBDOMINANT TRIADS

Other harmonies usually span the movement from opening to closing tonic. The most important of those chords are the dominant triad, built on $\hat{5}$, and the subdominant triad, built on $\hat{4}$. Together with the tonic triad ($\hat{1}$), these chords are called the **primary chords**, an expression that suggests an analogy to the three primary colors in the spectrum—red, blue, and yellow—from which all other colors are derived. These chords are the most important in the tonal system; there are entire repertoires of popular and folk music whose harmonies never stray beyond these three chords.

Since in any major key all these chords are major triads, they are designated by uppercase Roman numerals: I, IV, and V (Example 9.3a). In the minor mode, the tonic and subdominant triads, normally minor triads, are designated by lowercase Roman numerals—i and iv—but the dominant chord generally remains a major triad (V), since it retains the leading tone, or scale degree $\hat{7}$. As we have seen, however, in the minor mode both the sixth and seventh scale degrees may be either raised or lowered; therefore, it is possible in minor mode to have a major subdominant chord (IV) as well as a minor dominant (v). In some styles of music from the common-practice period, it is customary in minor keys to substitute a major triad for the final minor tonic triad (I for i); this substitute chord is called a *Picardy third*. The minor mode tonic, subdominant, and dominant triads are shown in Example

9.3b. Note that when we speak of chords and their tendencies in a general sense, applicable to both major and minor modes, we use the uppercase Roman numerals of the major mode to apply to both modes.

Example 9.3

RELATIONSHIPS BETWEEN THE PRIMARY CHORDS

The relationships between these three chords in both major and minor modes are strong and fundamental to the tonal system. There are two reasons for the strong connections between primary chords. First, the distances between the three roots are all perfect 4ths or 5ths—the subdominant is a 4th up or a 5th down from the tonic, and the dominant is a 5th up or a 4th down from the tonic. We call such pairs of chords *fifth-related*. Cadences involving roots a fifth apart are among the strongest in the tonal system. In addition, as we noted in our discussion of harmonic tendencies (see Figure 8.1), the sixth scale degree, the third of the subdominant or pre-dominant chord ($\hat{6}$), tends to move downward by step to $\hat{5}$, the root of the dominant chord; the third of the dominant chord ($\hat{7}$) tends to resolve upward by half step to $\hat{8}$ of the tonic chord. Therefore, the succession I-IV-V-I (tonic-pre-dominant-dominant-tonic) is a fundamental and very common progression, in both major and minor.

PARTWRITING CONNECTIONS BETWEEN THE PRIMARY TRIADS

Before examining how these chords are used in cadences and within musical phrases, we need to establish some principles of partwriting, or how to connect these chords. Our first issue is connecting fifth-related chords. The fifth-related pairs among the primary triads are I-IV, IV-I, I-V, and V-I.

The simplest way to connect two fifth-related chords is to **move the upper voices to the nearest members of the next triad while maintaining the same structure**—close to close or open to open. There are three possibilities.

1. The common tone stays in one voice while the other two upper voices move by step, and the structure remains the same (Example 9.4a).

2. One voice moves by step while the other two upper voices skip by a third, and the structure remains the same (Example 9.4b). Note that the tenor in the last example leaps downward from the leading tone to the fifth scale degree ($\hat{7}$ to $\hat{5}$).
3. In an occasional fifth-related progression (between I and V, or between I and IV), the soprano (or inner voice) may leap from the chordal third of one triad to the chordal third of the next: scale degrees, such as $\hat{3}$ to $\hat{7}$ (in I-V), or $\hat{3}$ to $\hat{6}$ (in I-IV). Here you must *change structure* in order to avoid parallel octaves and/or 5ths (Example 9.4c). The type of structure for each triad will depend on the direction of the leap, either up or down.
4. Composers occasionally allow the leading tone to follow its natural tendency and resolve upward by step to the tonic, although this results in a tripled root in the following tonic triad; we will have more to say about this strategy later.

Example 9.4

A. C: V I IV I

B. c: i \flat i iv V i

C. C O C C O
 $\hat{3}$ $\hat{7}$ $\hat{3}$ $\hat{6}$

C: I V I IV

One pair of primary chords, IV and V, are a major 2nd apart, not a 5th; we must therefore employ different partwriting procedures to connect these two chords.

1. If the soprano moves downward in contrary motion to ascending root motion ($\hat{4}$ - $\hat{5}$) in the bass, keep the same structure and move the

other voices downward to the nearest member of the next triad (Example 9.5a). Do not add a passing tone between $\hat{4}$ and $\hat{2}$, because it may produce parallel 5ths between the other voices (Example 9.5b).

2. If the soprano moves in stepwise 10ths with the bass, avoid the danger of parallel 5ths and octaves (Example 9.5c) by moving the alto and tenor in contrary motion to the outer parts. This strategy changes the structure of the chords from close in the IV chord to open in the V chord (Example 9.5d).

Example 9.5

A. c: iv V C: IV V C: IV V I

B. avoid P

C. //8vas/5ths C C C O
 $\hat{5}$ $\hat{\#6}$ $\hat{\#7}$ $\hat{8}$

C: IV V c: i IV V i

THE POLARITY BETWEEN TONIC AND DOMINANT CHORDS

We will study the subdominant chord and the other pre-dominant chords in detail later. For now we will focus on the two most fundamental chords in tonal music, the tonic and dominant triads. There is a strong tonal opposition or polarity between V and I, since V has a strong tendency to resolve to I. There are two basic types of harmonic motion in most musical

phrases: I→V and I→V-I. The music proceeds through melodic and harmonic motion, represented by the horizontal arrow, to its conclusion or **cadence**. As much as we need to focus on cadences and dealing with the partwriting issues they present, remember that a cadence is not simply a two-chord progression but an integral part of the entire musical phrase. The cadence represents the tonal goal of the phrase. A phrase that ends with a cadence on V is called an *open* phrase, usually representing a pause in the music, but not a full stop; a phrase that ends with a cadence on I is called a *closed* phrase, because it brings the music to closure. In Example 9.6, "Home on the Range," note the two types of harmonic motion—an open phrase is followed by a closed phrase. The succession of related but distinct phrases gives the listener a sense of both symmetry and completion.

Example 9.6

⑦ "HOME ON THE RANGE" (FOLK SONG)

A cadence or cadential progression consists of two or more chords and is characterized by certain standard melodic formulas in the bass and soprano voices. Strong root-position triads are generally used in cadences. For example, in a V-I cadence, the bass voice usually leaps from the dominant (5̂) to the tonic (1̂). Next we will examine some of the common cadential formulas. As we introduce additional chords, our list of cadential formulas will continue to expand.

THE AUTHENTIC CADENCE

Examples 9.7 through 9.9 illustrate melodic phrases leading to cadences. Note that the concluding chord generally occurs on a strong beat.

The term **authentic cadence** is applied to a V-I cadence, the cadence of a closed phrase. There are two forms of authentic cadence.

The **perfect authentic cadence** (PA) is characterized by stepwise motion to the tonic (2̂-1̂ or 7̂-8̂) in the soprano voice over a root-position V-I progression. This cadence, illustrated in Example 9.7, gives us the greatest sense of a strong conclusion. Note that V-I cadences are usually preceded by either a tonic or a subdominant chord, shown in parentheses. Study the soprano lines and partwriting connections in each example.

Example 9.7

⑦ A. "KEDRON"

⑦ B. "O TRAUERIGKEIT"

⑦ C. "ALBANO"

⑦ D. "VOM HIMMEL HOCH"

The **imperfect authentic cadence** (Example 9.8) is different in one respect from the perfect authentic cadence—the soprano ends on 3̂ or 5̂ rather than 1̂. Possibilities include 2̂-3̂, 5̂-3̂, and 5̂-5̂. As the name indicates, this cadence is less conclusive than the perfect authentic cadence.