Chapter 3

Harmonic Function; The Subdominant Triad in Root Position

THE BASIC HARMONIC FUNCTIONS

In chapter E we defined **harmonic function** as the relationship of a chord with the other chords in the key, and especially its relationship with the tonic. Functions may be grouped according to their type. The three basic functions are tonic, dominant, and predominant. Whereas the tonic is the only chord in the system that provides conclusive repose (the **tonic function,** abbreviated as T), several chords that contain the leading tone provide a tension that needs to resolve. Some of these chords are V, V_7, vii°, $vii°_7$, and $vii^{ø}_7$. We will refer to all these chords as having a **dominant function** (abbreviated as D). A number of other chords can precede a chord with a dominant function. Chords in this group, which have the function of preparing the dominant, include mainly IV, ii, and ii_7. We refer to this function as **pre-dominant** (abbreviated as PD).

Some chords function at times as **substitutes** for other chords. Although V must in principle resolve to I, in the "deceptive progression," V-vi, it resolves to a tonic substitute, vi. Finally, chords at times have the function of extending or embellishing other chords contrapuntally. This is a frequent function, as we will see throughout part 1, of first- and second-inversion chords, as well as of such chords as IV, vi, and iii. We refer to this extending or embellishing function as **prolongational function.** The most common functions of all seven diatonic triads are summarized in the chart that follows.

NOTE

Chordal function is entirely dependent on context; one chord can have different functions in different contexts. In this chapter we will see that IV can function as a predominant, but, in a different context, it can also function as a tonic prolongation. Chords in the dominant family (such as V_6 or $vii°_6$), on the other hand, often appear as linear chords, as we will study in chapters 4, 8, and 9. Thus, a chord can also have two simultaneous functions (such as a member of the dominant family actually functioning as a contrapuntal chord prolonging the tonic).

Summary of the Most Common Harmonic Functions of the Diatonic Triads

I (i)	Tonic
ii (ii°)	Pre-dominant (precedes V)
iii (III)	Tonic prolongation
IV (iv)	Tonic prolongation (subdominant) or
	Pre-dominant (precedes V)
V	Dominant
vi (VI)	Tonic prolongation or
	Tonic substitute or
	Pre-dominant (precedes V)
vii°	Dominant

THE SUBDOMINANT TRIAD

The **subdominant triad** (IV in major keys, iv in minor) is built on $\hat{4}$. It comprises scale degrees $\hat{4}$–$\hat{6}$–$\hat{1}$. The tonic, dominant, and subdominant triads can be considered the basic chords in the tonal system, and they illustrate all the main functions that have been defined previously (tonic, dominant, pre-dominant, and prolongation). For this reason they are known as the **primary triads.**

IV as Pre-dominant

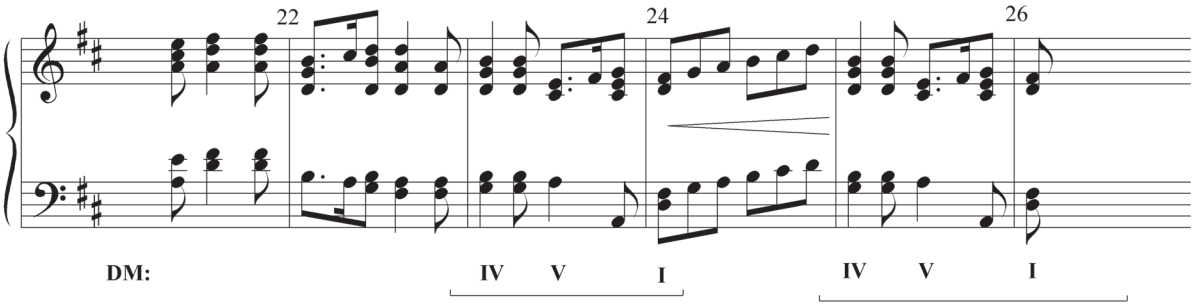
The most common function of IV is to precede V. The I–V–I progression is often elaborated by the introduction of IV between I and V: I–IV–V–I. Because the step progression $\hat{4}$–$\hat{5}$ in the bass from IV to V creates a melodic drive toward V, IV is a particularly strong pre-dominant chord (and, as we will see in chapter 5, so is ii_6, a chord very close to IV that also features $\hat{4}$ in the bass). In example 3.1a, both subdominants in mm. 23 and 25 function as pre-dominant chords because they precede (and prepare) the authentic cadences that follow.

The second part of Schubert's "Ecossaise" no. 2 (example 3.1b) is based only on the I–IV–V_7–I progression. Analyze this complete little piece, writing the correct Roman numerals under each measure.

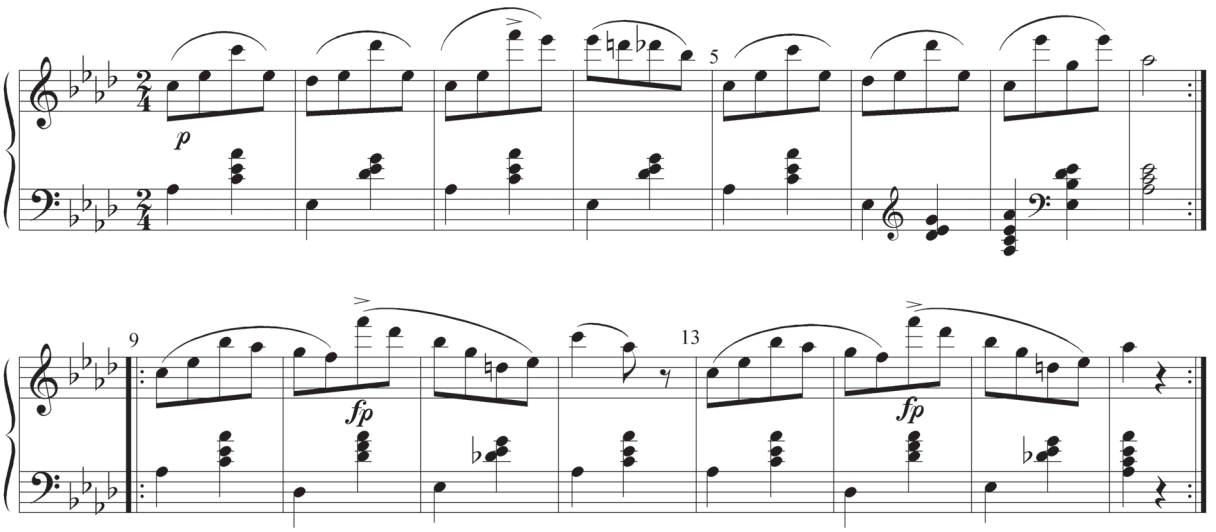
IV as Prolongation of I

In the opening measures of example 3.2a, the harmonic progression is V_7–I–IV–I–V_7–I–V_7–I. The phrase is thus based mostly on dominant-tonic progressions; the only

Example 3.1a Robert Schumann, "War Song," from *Album for the Young,* op. 68, mm. 21–26

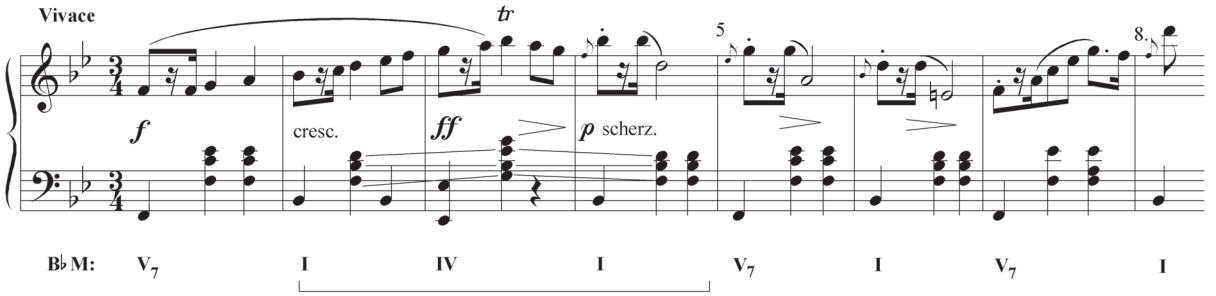


Example 3.1b F. Schubert, *Walzer, Ländler und Ecossaisen,* op. 18, Ecossaise no. 2

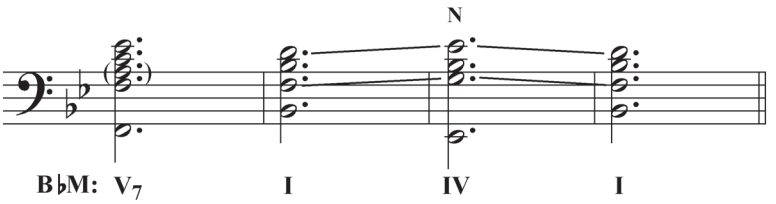


exception is the third chord, a subdominant triad that follows and precedes tonic triads. Examine the voice leading of this I–IV–I progression, as shown in the harmonic reduction in example 3.2b (where the left hand from example 3.2a has been reduced to block chords): the roots are related by descending 5th; one pitch (scale degree $\hat{1}$, B♭) is common to both chords, and remains in the same voice; the other two pitches in I, F–D,

Example 3.2a F. Chopin, Mazurka in B♭M, op. 7 no. 1, mm. 1–8



Example 3.2b

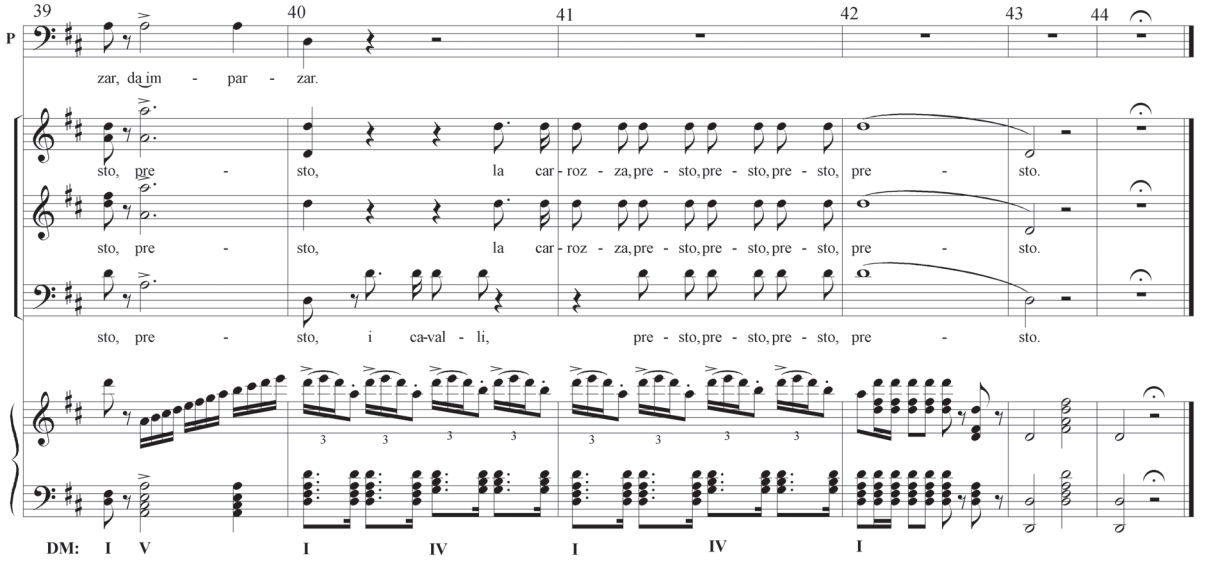


move up by steps to their upper neighbors, G–E♭, and down by steps again. IV functions here as a prolongation of the tonic, as opposed to a pre-dominant. In this function, IV embellishes the tonic triad and extends the tonic harmony by means of an upper-neighbor progression. This is an example of **IV as a prolongational chord.**

The Plagal Cadence

Sometimes composers write an authentic cadence at the end of a piece, and prolong the final I by means of a IV–I cadence (the complete progression may thus be V–I–IV–I). A IV–I (or iv–i) cadential progression is called a **plagal cadence,** and is often sung to the word *Amen* at the end of Protestant hymns. In example 3.3, Gaetano Donizetti ends the "Introductory Chorus" of *Don Pasquale,* act III, with a PAC followed by a reiterated plagal cadence. Observe that, in mm. 40–42, the repeated cadential I–IV–I progression in the orchestra (the piano reduction in our example) harmonizes an extended scale degree $\hat{1}$ in the chorus.

Example 3.3 Gaetano Donizetti, *Don Pasquale,* act III, "Introductory Chorus," mm. 39–44



EXERCISES

To practice analyzing musical fragments based on I, IV, and V harmonies, refer to exercise 1 in worksheet 3 at the end of this chapter.

To practice realizing progressions using IV as a prolongation of I, refer to exercises 2a to d and 3a in worksheet 3 at the end of this chapter.

To practice realizing progressions using IV as a pre-dominant chord, refer to exercises 2e to g and 3b to d in worksheet 3 at the end of this chapter.

To practice harmonizing melodic fragments with I, IV, and V chords, refer to exercise 4 in worksheet 3 at the end of this chapter.

CHARACTERISTIC SOPRANO-BASS PATTERNS

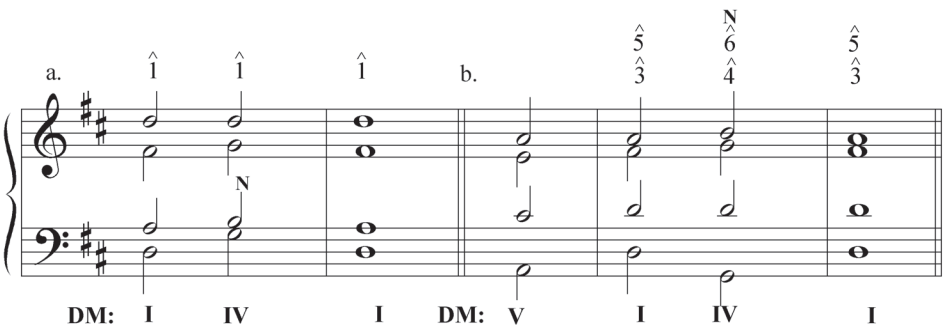
Example 3.6 provides a summary of some typical soprano-bass contrapuntal patterns that can be harmonized with the two progressions we have studied in this chapter. Examples 3.6a to c show outer-voice patterns for the I–IV–V–I progression, including the conclusive $\hat{1}$–$\hat{1}$–$\hat{7}$–$\hat{1}$ and $\hat{3}$–$\hat{4}$–$\hat{2}$–$\hat{1}$ soprano patterns, the less conclusive $\hat{3}$–$\hat{4}$–$\hat{2}$–$\hat{3}$ and $\hat{5}$–$\hat{6}$–$\hat{5}$–$\hat{5}$, and the ascending $\hat{5}$–$\hat{6}$–$\hat{7}$–$\hat{1}$ pattern. Examples 3.6f to h show three patterns for the I–IV–I progression, including the sustained $\hat{1}$ soprano pattern and two neighbor figures, $\hat{5}$–$\hat{6}$–$\hat{5}$ and $\hat{3}$–$\hat{4}$–$\hat{3}$.

1. The IV chord includes two tonally strong degrees ($\hat{4}$ and $\hat{1}$, the root and fifth, respectively), either of which is perfectly suitable for doubling. Doubling the third ($\hat{6}$), produces a weaker sonority.
2. In the I–IV–I progression, the roots are a 5th (or a 4th) apart. The chords have one common tone, which remains in the same voice. The other two pitches move by steps in the same direction (example 3.4a).

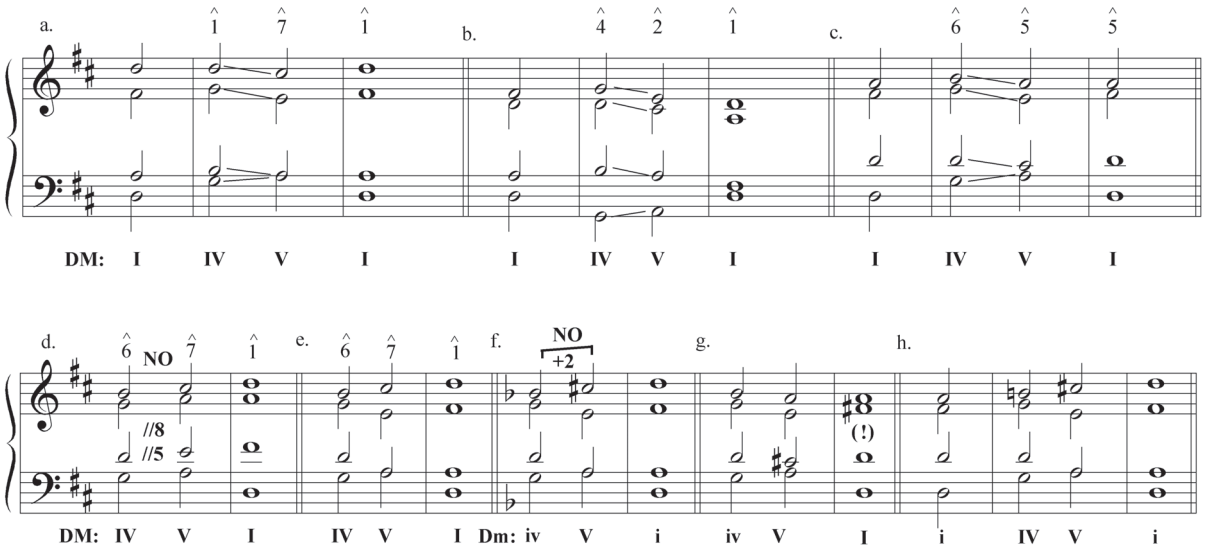
   This voice leading reflects the fact that this progression is a prolongation of the tonic: $\hat{1}$ is retained as the common tone, while the voices with $\hat{3}$ and $\hat{5}$ are embellished with *upper neighbor-note figures* (up a step, and return to the original note). From a voice-leading point of view, IV functions here as a **neighbor chord** (a chord that results from linear neighbor-note motion).

   The I–IV–I progression can be used to harmonize a soprano that repeats or holds $\hat{1}$ (as in example 3.4a) or one that features either of two neighbor figures: $\hat{5}$–$\hat{6}$–$\hat{5}$ or $\hat{3}$–$\hat{4}$–$\hat{3}$ (example 3.4b).
3. Example 3.4b illustrates a plagal cadence in block-chord style. A V–I authentic cadence is followed by a IV–I cadence in which the voice leading follows the same guidelines as in no. 2.
4. The IV–V connection, however, presents new difficulties. This progression features root motion by 2nd. As you learned in chapter 1, to connect chords whose roots are a second apart, *the three upper voices should move in contrary motion with the bass* (two of the voices by step, one by leap of a 3rd). This connection is illustrated in example 3.5a.
5. Several soprano melodic patterns can be harmonized with a IV–V–I cadential progression. Among them, $\hat{1}$–$\hat{7}$–$\hat{1}$ and $\hat{4}$–$\hat{2}$–$\hat{1}$ provide a conclusive effect appropriate for PACs, while $\hat{4}$–$\hat{2}$–$\hat{3}$ and $\hat{6}$–$\hat{5}$–$\hat{5}$ are used in IACs or in progressions inside phrases (examples 3.5a to c). Here again, notice that the outer-voice frames in these examples follow the principles of first-species counterpoint.
6. If you want to harmonize a $\hat{6}$–$\hat{7}$–$\hat{1}$ motion in the soprano with a IV–V–I progression, you must beware of multiple voice-leading problems. Parallel 8ves and 5ths are a frequent error in such harmonization (example 3.5d). Example 3.5e shows a possible voice-leading solution to this problem.
7. In the minor mode, however, the same progression from example 3.5e would be flawed by a melodic augmented 2nd ($\flat\hat{6}$–$\sharp\hat{7}$) in the soprano (example 3.5f). Examples 3.5g and h illustrate two ways of avoiding the augmented 2nd in minor. Example 3.5g features identical voice leading as does example 3.5c (the normative voice leading in progressions with roots a 2nd apart): $\flat\hat{6}$ and $\sharp\hat{7}$ are simply placed in different voices. At other times the melodic minor scale is used in its ascending form ($\hat{5}$–$\sharp\hat{6}$–$\sharp\hat{7}$–$\hat{1}$), thus avoiding the awkward melodic augmented 2nd. As you will see in example 3.5h, such use of the melodic minor scale results in a major IV (rather than iv) in a minor key, with the same voice leading as in example 3.5e.

Example 3.4



Example 3.5



NOTE

The last chord in 3.5g, shown by an exclamation mark, is a major tonic triad (notice that the third has been raised) in a minor mode. This is a device frequently used by composers (especially during the Renaissance and Baroque periods) to close a piece in the minor mode, and it is called ***Picardy third.*** *Ending a minor mode piece with a major tonic triad gives the final cadence a stronger sense of conclusion.*

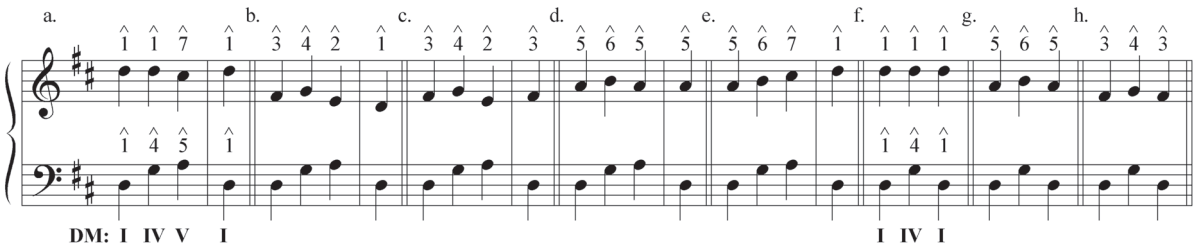
Typical Errors to Avoid

1. Writing parallel 5ths or 8ves in the IV–V connection.
2. Writing an augmented 2nd in the iv–V connection (minor modes) if $\flat\hat{6}$ and $\sharp\hat{7}$ are left in the same voice.
3. Writing the bass of the IV–V progression ($\hat{4}$–$\hat{5}$) as a 7th rather than a 2nd.

A MODEL TO ELABORATE THE FUNDAMENTAL PROGRESSION

We have defined the I–V–I progression as the fundamental progression of tonal music. In this and the following chapters we will learn many ways of elaborating the fundamental progression. Summarizing chordal functions into three major categories

Example 3.6



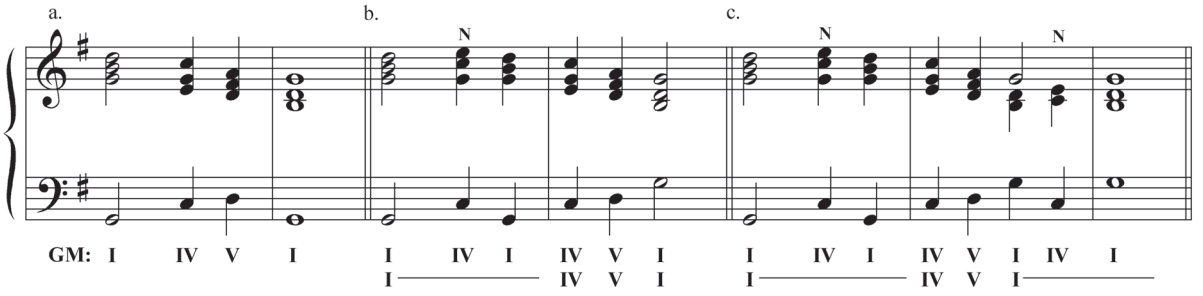
will help our definition of a model to elaborate the tonic-dominant-tonic (T–D–T) progression:

1. *Structural chords* are those that can have a beginning or ending function within musical units. Only I (i) and V are truly structural in functional tonality.
2. *Pre-dominant chords* have the function of preparing the dominant. ii, IV, and vi can function as pre-dominant chords.
3. *Prolongational chords* have the function of extending the structural frame in time or of extending other nonstructural chords. We will study a variety of prolongational structures throughout this book

The fundamental progression comprises only chords in the first category: I–V–I, or T–D–T. The first elaboration of the fundamental progression entails the addition of a pre-dominant (PD) chord from category 2: T–PD–D–T. Any of the four harmonies in this progression can be extended by means of chords from category 3, the prolongational chords. The most common type of prolongation, however, involves the opening tonic. Thus, our basic model progression will consist of *TONIC//tonic prolongation// pre-dominant//DOMINANT//TONIC*. The fundamental progression I–V–I (shown in capitals) frames this model. Possible extension of the pre-dominant, the final dominant, and the final tonic will also be discussed throughout this book. The following chart illustrates the three levels for our basic model progression as we have just defined them.

TONIC			DOMINANT	TONIC
TONIC		Pre-dominant	DOMINANT	TONIC
TONIC	Tonic prolongation	Pre-dominant	DOMINANT	TONIC

Example 3.7



Elaborating the I–V–I Progression with Subdominant Harmonies

We can expand the I–V–I progression in several ways using the harmonic elements we have learned in this chapter. First, we can prepare the V–I cadence with a pre-dominant IV, as shown in example 3.7a. Then, we can prolong the initial I with a contrapuntal I–IV–I progression, as in example 3.7b. Finally, we can also extend the final tonic by means of a plagal cadence, as shown in example 3.7c. The lower line of Roman numerals under these examples demonstrates that *we can hear two levels of harmony in these progressions*. At one level, we hear each chord in isolation, as indicated by the upper Roman numerals. At the next, deeper level, the initial or final tonic triads and their prolongations are heard as single harmonies extended by neighboring motions.

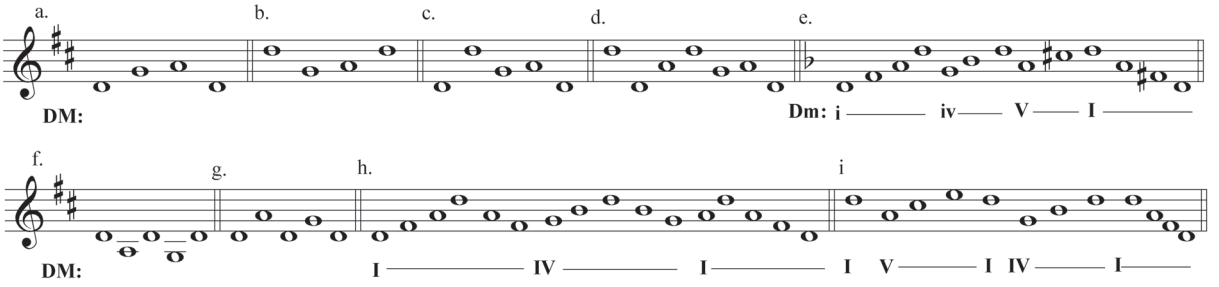
NOTE

The progressions in example 3.7 are written in keyboard texture, rather than four-part vocal texture. In chordal keyboard texture, the bass is usually played alone with the left hand, and the remaining voices are played in close position with the right hand. Voice-leading rules and guidelines are the same as for vocal texture.

ASSIGNMENT AND KEYBOARD EXERCISES

For analytical and written assignments and keyboard exercises based on the materials learned in this chapter, refer to chapter 3 in the workbook.

Example 3.8



PITCH PATTERNS

Sing the pitch patterns in example 3.8, both in major and minor modes. Listen to the chords and progressions that are either implied (as in patterns a and b) or actually spelled out linearly (as in pattern h, where the tonic and subdominant chords have been "horizontalized").

Terms for Review

Harmonic function
Tonic function
Dominant function
Pre-dominant function
Substitution
Prolongational function
Subdominant triad
Primary triads
IV as pre-dominant
IV as a prolongation chord
Plagal cadence
Picardy third
Neighbor chord

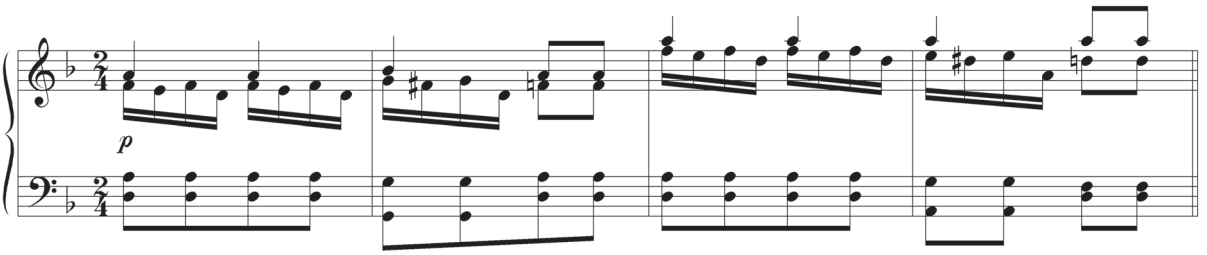
Worksheet 3

EXERCISE 1 Analysis.

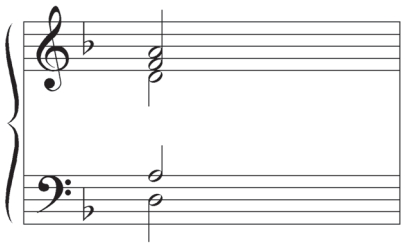
1. a) Analyze example 3.9a with Roman numerals (RNs). The second sixteenth note in each of the sixteenth-note figures should be analyzed as a nonchord tone, an ornamental pitch foreign to the chord against which it sounds as a dissonance. In this case, the second sixteenth note is always a melodic lower-neighbor note (a note a step below a chord tone).

   b) On the other hand, the chord on m. 2, beat 1, is also an ornamental chord with a similar function. Study the voice leading to and from this chord, and explain its function with precise musical terms. Show the voice-leading structure of mm. 1–2 (using only chord tones) in the staves in example 3.9b. With what kind of cadence does the passage close? Explain.

Example 3.9a F. Schubert, Ecossaise D.158

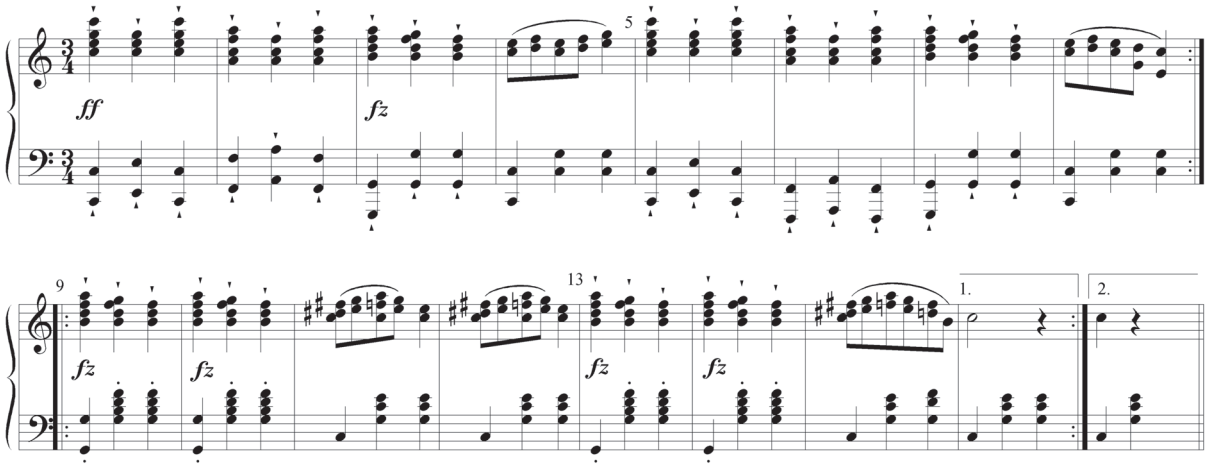


Example 3.9b



2. a) Analyze the complete example 3.10 with RNs (one chord per measure, except for m. 15, which has two chords). Beware of—and for the time being ignore—the numerous nonchord tones.

Example 3.10 F. Schubert, *Zwanzig Walzer,* op. 127, no. 13



b) Section 1 (mm. 1–8). On what progression is this section based?

c) Chords in section 1 change every measure. How does Schubert achieve a sense of motion within mm. 1–2 and 5–6?

d) How does the bass reflect the melody in mm. 1–2 and 5–6?

e) The most dissonant beat in this section (m. 3, beat 1) is a dominant ninth chord (a V_7 chord with one more third on top of the seventh) resulting from the melodic line. How does Schubert stress this dissonant spot?

f) The resolution of the progression, in mm. 4 and 8, also receives a special articulation treatment. How?

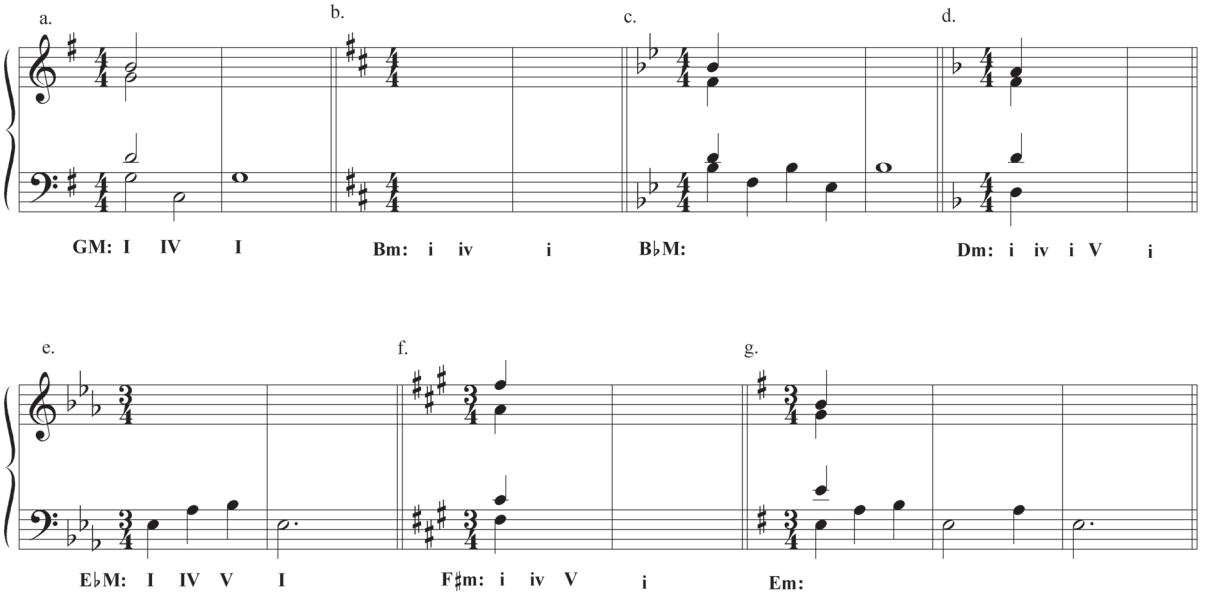
g) Section 2 (mm. 9–16). On what progression is this second section based?

h) Chords change here every two measures. By what means does Schubert extend each chord for two measures?

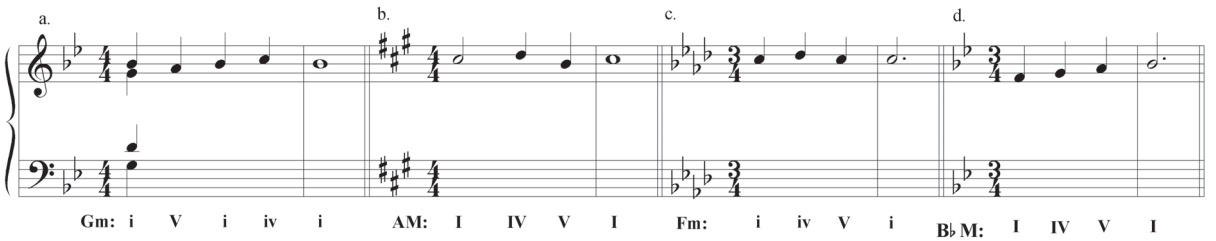
i) Changes of harmony, as well as dissonance, and also harmonic function (tension/release) are all reflected in this section by specific articulation marks. Explain.

j) Compare the cadences in mm. 8 and 16. What are their types, and how are they different?

EXERCISE 2 Realize the following progressions in four voices. First add RNs if missing, then write the bass line if it is not provided. Next, write a good soprano line, making sure that it forms a good contrapuntal frame with the bass. Finally, add inner voices using correct voice leading. Use only, in all cases, tonic, dominant, or subdominant chords in root position. *Remember*: Before turning in a part-writing exercise, play it and listen to it.



EXERCISE 3 Write four-voice harmonizations for the following melodic fragments. Write the bass first, and then fill in with the inner voices. Sing each melody before writing the harmonization, and after writing it play the complete harmonization at the piano.



EXERCISE 4 The following soprano fragments are made up of melodic tonal patterns that in this chapter have been associated with specific harmonic patterns. Harmonize each fragment with the corresponding harmonic pattern or patterns. First, write scale degrees over the melodic fragments. Then, provide the *bass line and RNs* for your harmonization. You need not fill in the inner voices, although you may do so for additional practice. The melody in 3.4d is made up of two segments that you can harmonize with two different patterns. To connect both segments, harmonize m. 1, beats 3–4 with a single chord.