CHAPTER 18

Applied Chords

OVERVIEW

To this point, we have dealt exclusively with diatonic harmony. This chapter introduces the world of chromaticism, of which there are two fundamental types. We will explore the first type, which allows chords other than the dominant to function as dominants. As such, they can resolve to different harmonies within a key, which act as temporary tonics.

CHAPTER OUTLINE

(continued)

CHROMATICISM COLORS DIATONICISM; therefore, chromatic pitches are generally not integral to the underlying diatonic structure. Instead, chromatic pitches take the place of diatonic pitches in a process called **chromatic alteration**. Diatonic passing tones can be harmonized by diatonic chords. Similarly, chromatic passing tones can be harmonized by chromatic chords.

Compare the two excerpts in Example 18.1. Example 18.1A presents a chromatic passing tone (C♯) between the tonic and ii chords, invigorating the melodic motion between $\hat{1}$ and $\hat{2}$. In Example 18.1B, the chromatic passing tone is harmonized by an intermediate harmony, an A-major chord. The chromatic passing tone is of little help in avoiding the parallel octaves and fifths in Example 18.1A, but when C♯ is supported with its own chord (A major in Example 18.1B), all the parallels disappear and the harmonic motion to the ii chord is intensified.

EXAMPLE 18.1 **Harmonic Chromatic Passing Tones: Stabilization and Voice-Leading Corrective**

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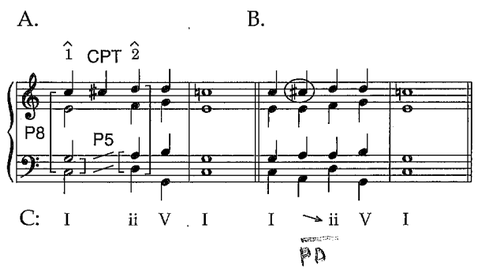

Because the A-major chord functions as a dominant, it evokes the momentary impression that we are in the key of D minor. This sensation of briefly experiencing a key (e.g., for a few beats or even a measure or two) other than the tonic is **tonicization**, which is accomplished through the use of these **applied dominant chords** (also called **secondary dominant chords** or **applied chords**). The essential feature of tonicization is to endow a scale degree other than the tonic with temporary tonic status by stabilizing the "new" tonic with a short progression (such as I–ii^6–V–I). For example, the tonicization in the example expands the PD: The realm of ii lists two chords (A major and D minor) rather than just one, but it still participates in the underlying structural harmonic progression of T–PD–D–T.

APPLIED DOMINANT CHORDS

For a chord to function as an applied dominant, it must behave like a dominant. It must be a major triad (V) or a dominant seventh chord (V^7) and it will usually move to its tonic. Because dominant chords resolve to tonic chords that are either major or minor, any major or minor diatonic harmony can be preceded by an applied dominant chord.

Example: We are in C minor and would like to determine the applied dominant of V. V is a G-major chord, so the applied dominant of G major is D major. This is not in the original key, so we label the roman numeral as "applied dominant of V," or "V of V"—or simply "V/V." It is common for a key's dominant and pre-dominant to be preceded by their dominants. Just as common is the use of an applied dominant to III in minor—we have already seen this "V of III" chord in Chapter 14.

In Example 18.1B, the A-major triad is the applied dominant chord to ii in the key of C major. In this case, we label the A-major triad as the dominant of ii, or "V/ii."

To summarize, there are two different methods for creating applied dominant chords. One way is to take any major or minor triad in a key and precede it with its applied dominant. In Example 18.2 the diatonic progression I–vi–IV–V–I is expanded with chromatic chords: V^7/vi precedes vi, V^7/IV precedes IV, and V^7/V precedes V.

EXAMPLE 18.2 **Diatonic Progression Expanded with Applied Chords**

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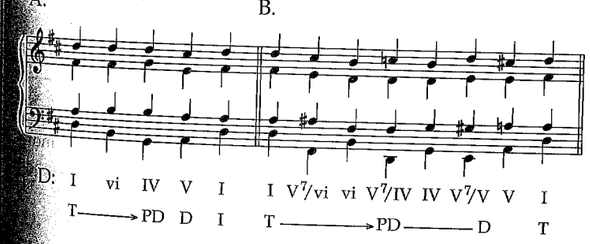
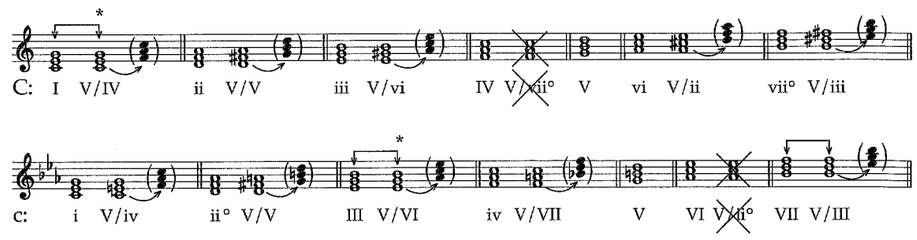


The second method is to alter diatonic chords chromatically, changing them into applied dominants and seeing where they point as dominant chords. In Example 18.3, note that IV (in major) cannot be altered to create V/vii°, because vii° is dissonant (a diminished harmony) and the root of IV lies an augmented fourth (rather than a perfect fourth) below the root of vii°. Similarly, VI (in minor) cannot be altered to create V/ii° because ii° is dissonant and the root of VI lies an augmented fourth below the root of ii°. Example 18.3 shows the diatonic triads in both C major and C minor, their transformation into applied dominants (in parentheses), and to what diatonic triad they would lead.

Notice that some diatonic chords are already major triads and therefore can be used as applied dominant chords (see the bracketed arrows): In major keys, V/IV is diatonic; in minor keys, V/VI and V/III are diatonic. In order to clarify their applied function,

EXAMPLE 18.3 **Generating Applied Dominants**



these chords typically appear as V^7 chords, adding the minor seventh above the root. For example, V/IV–IV in major will most likely be heard simply as tonic moving to IV rather than as IV's applied dominant. Adding the seventh transforms the diatonic harmony into an applied chord. Asterisks in Example 18.3 indicate applied chords that require the added seventh. Because of their strong connection, applied dominant chords and their tonics occur under the same function in second-level analysis. For example:

I	V/ii	ii	V/V	V	I
T	PD		D		T

MORE-EXTENSIVE TONICIZATIONS OF NONTONIC HARMONIES

Applied Chords in Inversion

The bass line in Example 18.4 is rather angular, so we use inversions to make it more melodic. Compare Example 18.4A with Example 18.4B, and notice that the latter sounds more polished.

EXAMPLE 18.4 **Root Position Versus Inverted Applied Chords**

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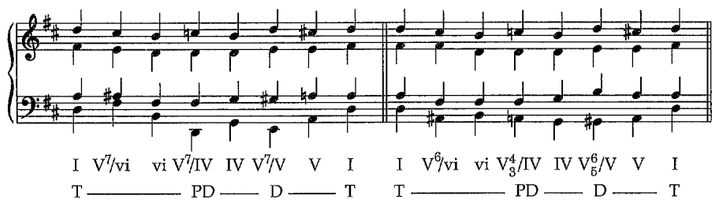
A. B.



In the same way that inversions of V prolong I (e.g., V^6 usually expands I as a lower-neighbor chord), any other major or minor harmony in a key can be prolonged by its applied dominant chord. Example 18.5A reviews how tonic may be prolonged by any inversion of V^7. In Example 18.5B the supertonic is prolonged by its V^7 chord in precisely the same way. The only difference is the chromaticism: D must be altered to D♯ in order to function as the leading tone to the key of ii (E minor). However, no matter how extensive the expansion of a nontonic harmony, that harmony will ultimately figure into the tonal motion of the phrase model. For example, in Example 18.5C, ii is considerably expanded, but it still functions in the capacity of the phrase's pre-dominant.

EXAMPLE 18.5 **Expanding the Pre-dominant**

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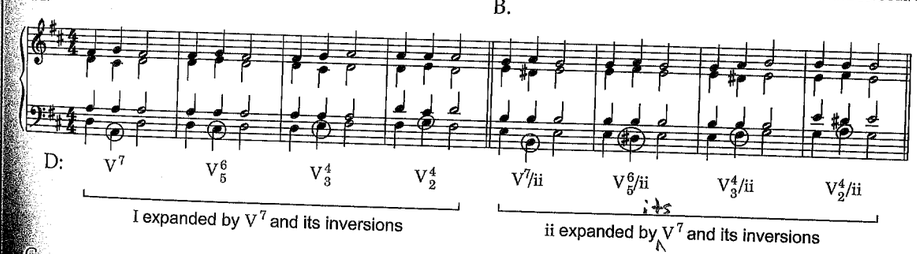
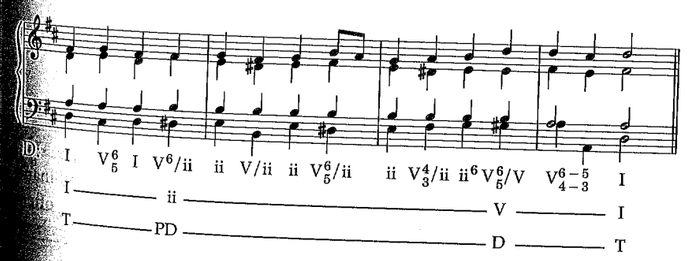
A. B.



C.



Tonicized Half Cadences

Applied chords intensify the drive to cadences, especially to half cadences, which close the first phrase of an interrupted period. Such **tonicized half cadences** help to stabilize the arrival on the dominant. The last movement of Beethoven's E♭ major Piano Trio opens with a PIP whose first phrase closes with a HC that includes V^6_5 of V, which helps to secure the arrival on V. The following phrase, which closes the period, contains another applied chord that initiates the drive to the authentic cadence by the falling-fifth motion: vi–ii–V–I (see Example 18.6).

EXAMPLE 18.6 **Beethoven, Piano Trio in E♭ major, op. 1, Finale**

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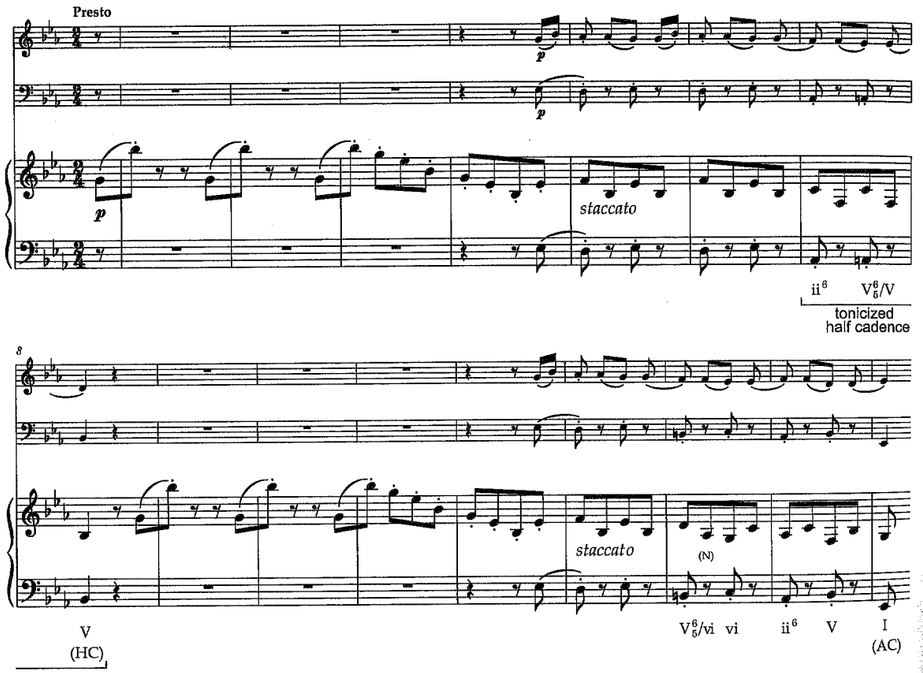

Recognizing Applied Chords

Recognizing applied chords is not difficult: Aurally they have a distinctive dominant sound, and visually they have a distinctive notation. A chromatically raised note is often the third of an applied dominant chord (which is the leading tone for its key), and a chromatically lowered note is often the seventh of the applied dominant chord.

In Example 18.7, the first chromatic pitch is F♯, and as a *raised* pitch it signals its function as a temporary leading tone to G (and, of course, G is iv in D minor, which helps you analyze the chord as a V/iv). Similarly, the E♭ (diatonic E's *lowered* form; m. 1, beat 4) implies that it will function as the seventh of an F dominant seventh chord, as V^7/VI.

Voice Leading for Applied Chords

Two chromatic alterations are common in applied chords, both of which are tendency tones. One is the third of the chord, which is often chromatically *raised* and acts as a *temporary leading tone*. The other is the *seventh of the chord,* which often needs to be

EXAMPLE 18.7 **Detecting Applied Chords**

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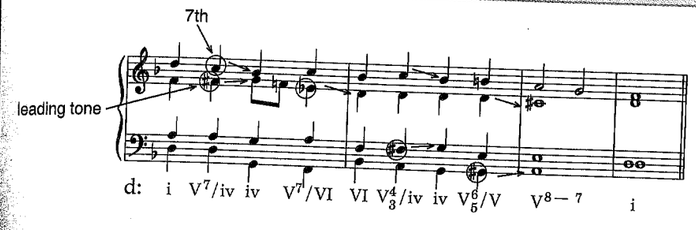
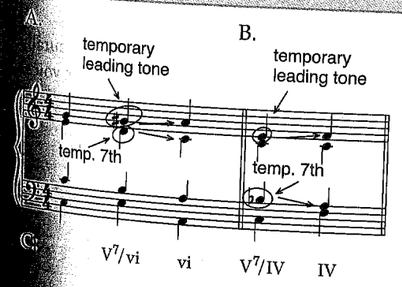


chromatically *lowered* in applied dominant chords. The voice-leading rules for the V^7 chord pertain to applied dominant chords as well.

- Do not double the third (the leading tone) or the seventh of the chord.
- The leading tone must resolve upward when in an outer voice.
- The seventh of the chord resolves downward in any voice.

Example 18.8 shows the proper voice leading for applied dominant chords to vi and IV in C major. Note that root-position applied dominant chords may be complete (V^7/vi in Example 18.8A) or incomplete (V^7/IV in Example 18.8B).

EXAMPLE 18.8 **Part Writing Applied Chords**

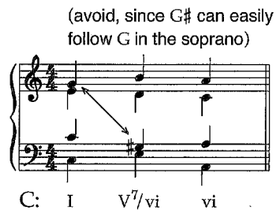


Cross Relation

Look again at the soprano line of Example 18.8A. The leading tone (G♯) is a chromatic passing tone between G and A, which creates a smooth chromatic line: G–G♯–A. You prepare chromaticism by preceding a chromatic tone with its diatonic version in the same voice, in this case resulting in a chromatic half-step line, because it softens the jarring effect of the chromatic tone.

When a chromatic tone is prepared by another voice (instead of the same voice), it results in a **cross relation**. In Example 18.9, the chromatic G♯ is not prepared in the tenor; the diatonic G occurs in the soprano voice. This cross relation should be avoided since it produces a clashing sound due to the awkward leaps in the soprano and tenor.

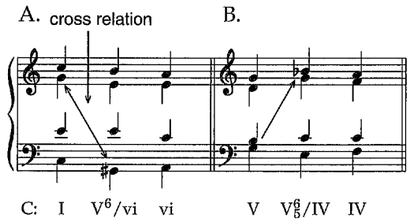
EXAMPLE 18.9 **Cross Relation**



Despite the desirability of chromatic preparation, in many instances it is impossible for chromatic pitches to follow their diatonic forms in the same voice. Example 18.10A shows one such scenario.

- In a progression from I to V^6/vi in C major, the bass leaps down from C to G♯, which resolves as it should, to A. This leap of a diminished fourth in the bass is acceptable and quite expressive; in Baroque music with text, this leap often accompanies words of great sorrow or pain. Clearly, the alto G cannot move to G♯ when the bass sounds that pitch (since G♯ is a leading tone in the applied V^6/vi chord).
- A similar scenario occurs with a leap to the seventh of an applied dominant chord in the soprano (Example 18.10B).
- If you must write a cross relation, avoid writing the notes between the aurally prominent bass and soprano; instead, place the cross relation between inner voices or between one outer voice and an inner voice.

EXAMPLE 18.10 **Legal Cross Relations**



WORKBOOK 1
Assignments
18.1–18.3

EXERCISE INTERLUDE

WRITING

18.1 Spelling Applied Dominant Chords

A. Notate the following applied dominant triads and seventh chords in close position on the treble staff. Use key signatures.

SOLVED/APP 5

1. In G major: V^7/IV V^7/vi V^7/V
2. In D minor: V^7/iv V^6_5/III V^7/VI
3. In B minor: V^7/V V^6/VI V^4_3/iv
4. In E♭ major: V^6/iii V^7/vi V^6_5/ii

B. Notate the following applied chords in four-part keyboard style. Use key signatures. Remember not to double temporary leading tones or chordal sevenths.

1. In F major: V^7/V V^6_5/IV V^6/ii V^7/iii
2. In G minor: V^7/VI V^6_5/III V^4_3/V V^6_5/iv
3. In E minor: V^6/III V^4_3/V V^7/VI V^6_5/iv

APPLIED LEADING-TONE CHORDS

Dominant substitutes—vii°6, vii°7, and to a lesser degree vii°7—can participate in contrapuntal expansions of the tonic. Often, these harmonies are also used as applied dominant substitutes that lead to other scale degrees. We have been using only those diminshed seventh chords that are built on $\hat{7}$ *of the minor mode.* With the introduction of applied leading-tone chords, *we now may use vii°7 and its inversions to tonicize major and minor triads.*

Listen to Example 18.11, in which the applied chords in mm. 1–2 help tonicize ii of C major. Because of the varied types and inversion of applied chords—vii°7/ii, vii°6/ii and

EXAMPLE 18.11 **Applied vii° and vii°7**

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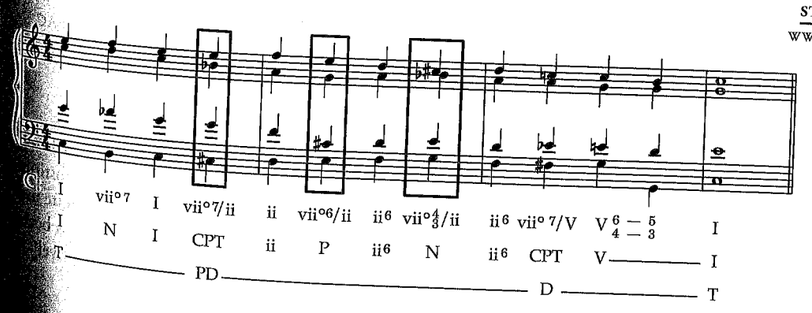

vii°$^4_3$/ii—the supertonic can be tonicized for some time (nearly half of the example's four measures). Note that the larger function of ii as a pre-dominant remains unchanged. The tonicized area functions as a way station that helps to connect tonic and dominant.

INCORPORATING APPLIED CHORDS WITHIN PHRASES

There are no new rules to learn when writing applied chords in phrases; however, you must consider metric and rhythmic placement in order to create a balanced and pleasing structure. Listen to Example 18.12, and determine its phrase structure and the metrical placement of the applied chords. Beethoven has created a parallel interrupted period, and every applied chord appears on a metrically weak beat. *Weak metrical placement of applied chords is common because they contain leading tones that precipitate motion toward a metrically stressed goal.* Beethoven uses three applied chords in the first phrase; the first, a vii°^{7} chord, is applied to vi; the second, V/V, appears twice, the first time to lead to V and the second time to tonicize the half cadence. In the second phrase only a single V/V appears, because the dominant is not the goal of motion as it was in m. 4 of the first phrase. Rather, the tonic occupies the entire last measure, using the dominant to intensify the PAC.

EXAMPLE 18.12 **Beethoven, String Quartet no. 9 in C major, op. 59, no. 3, Menuetto: *Grazioso***

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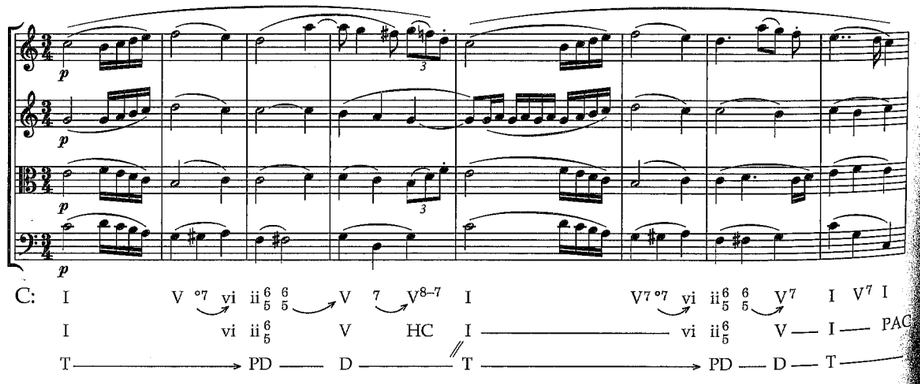

Analytical Shorthand

A new notational symbol appears in Example 18.12, the curved arrow (⌣), which represents that the chord preceding the arrow is an applied dominant or dominant substitute that leads to the chord to which the arrow points. This shorthand label is often quite useful, as in this excerpt with such fast harmonic rhythm and so many chords in so few beats. However, sometimes applied dominants (like the actual V$^{(7)}$ chord) resolve deceptively, to

what would be vi in the temporary key. In such cases, you must supply the complete roman numeral for the applied chord, because the arrow alone will not indicate a deceptive motion. Further, you may also use the following analytical shorthand for both applied dominants (and dominant sevenths) and applied diminished seventh chords: For dominants, use only their figured bass symbols (e.g., $^6_3$, ^{7}, $^4_3$); for diminished sevenths, add the accompanying diminished sign (e.g., °^{7}, °$^6_5$). You can also use the complete roman numeral followed by the arrow (e.g., V^7⌣).

An Example Composition

Let's write a contrasting continuous period, in $\frac{4}{4}$ meter and G minor, incorporating several applied chords. First, plan the big picture by mapping out the overall structure. Then construct a single large-scale harmonic progression by closing the first phrase with a deceptive motion, moving to a PD to begin the second phrase, and closing on tonic. The following diagram presents a possible harmonic rhythm of this plan:

	Phrase 1			(DC)	Phrase 2			PAC
mm:	1	2	3	4	5	6	7	8
G minor:	i		V	VI	iv		ii°–V	i
	T			PD			D	T

Measures 2 and 6 provide opportunities to insert embellishing harmonies. First, try to connect the i of m. 1 with the V of m. 3, using the bass arpeggiation i–VI–PD. But because the phrase closes on VI, an early appearance of VI might make m. 4 sound anticlimactic. Another option to link i and V is to use the following progression:

	Phrase 1			
mm:	1	2	3	4
	i	III	PD–V	VI

Although this looks like a workable harmonic plan, it still might sound a bit bare and simplistic. At this point, adding some contrapuntal and applied chords will help to establish the tonic in m. 1 and to intensify the overall progression.

Phrase One

From this point on, envision your harmonic choices with the help of a bass line. First, arrange it so that every chord in the progression is preceded by an applied chord. (Remember that you can precede any consonant [major and minor] harmony with an applied chord, so only ii° may not be expanded by an applied chord.) In placing your applied chords, aim for weak beats so that the chord can resolve to structural chords on stronger beats, as in Example 18.13A. Don't rely exclusively on root-position applied dominant chords, nor should you restrict yourself solely to triads.

For variety, our taste demands a mix of applied chords as well as a smooth bass contour, as in Example 18.13B. A neighboring diminished seventh chord helps to establish the tonic in m. 1. In addition, the bass of the chord contrasts with the following F, the root of a V^7/III chord. The III is prolonged with an applied dominant substitute that acts as a

6. Summarize the guidelines in "Voice Leading for Applied Chords."

_____

7. When **chromaticism** is not prepared by a common tone in the same voice, a _____ results, which should be avoided, if possible.

_____

8. True or False: Strong metrical placement of applied chords is common.

_____

9. When secondary dominants are added to sequences, _____ occur.

_____

10. Summarize the guidelines for "Writing Applied-Chord Sequences."

_____

CHAPTER 19

Tonicization and Modulation

OVERVIEW

This chapter enlarges the scope of tonicization by introducing techniques for multiple chords and entire phrases to be centered around a harmony other than the tonic. Such emphasis on nontonic chords enriches the harmonic palette, extends phrases, and results in a goal-directed motion back to the home tonic. As a key part of this chapter, we define modulations and show how to analyze and write them.

CHAPTER OUTLINE

IN CHAPTER 18 WE LEARNED about applied dominant chords that led toward chords other than the tonic through tonicization. We will now explore **extended tonicizations** and **modulations.**

EXTENDED TONICIZATION

A tonicization is extended when it involves multiple applied chords. For example, let's say you want to avoid the clutter of roman numerals in Example 19.1A, which has several

chords in a row applied to D minor (ii). In order to show that there is an extended reference to another key—but the phrase remains in the original key overall, with a cadence in C major:

- Bracket the beginning and ending points of the tonicization.
- Beneath the bracket, label the temporary tonic in relation to the main tonic using a roman numeral.
- Above the bracket, analyze the chords in the key of the temporary tonic.

Thus, the chords in the fifth measure—iv/ii and V/ii—become the progression iv–V in the key of ii. You are not changing the applied nature of the chords, but rather are providing a more holistic view of the chords' tonicizing function.

EXAMPLE 19.1 **Contextual Analysis of Extended Tonicizations**

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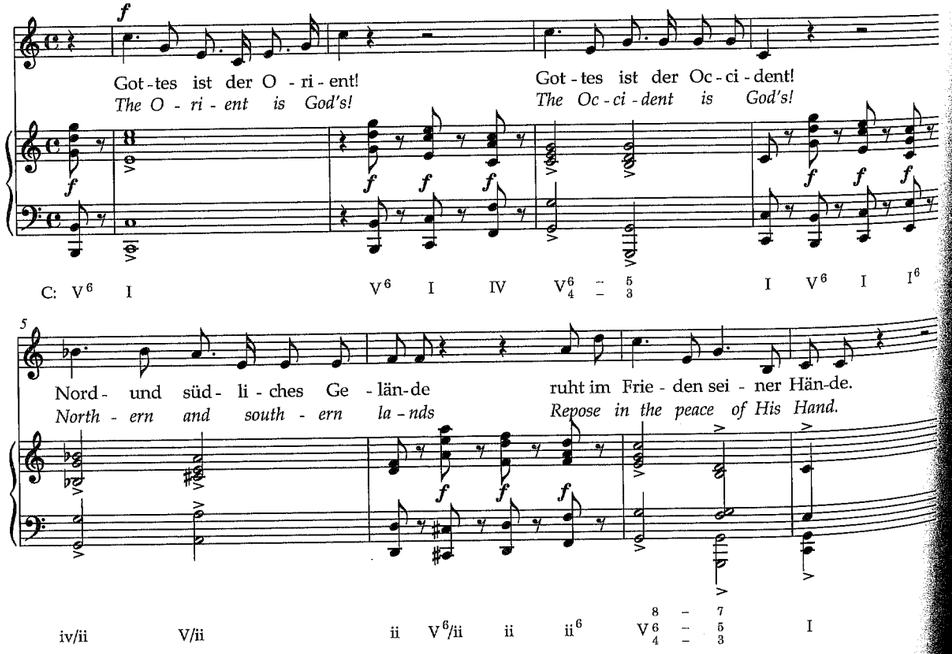
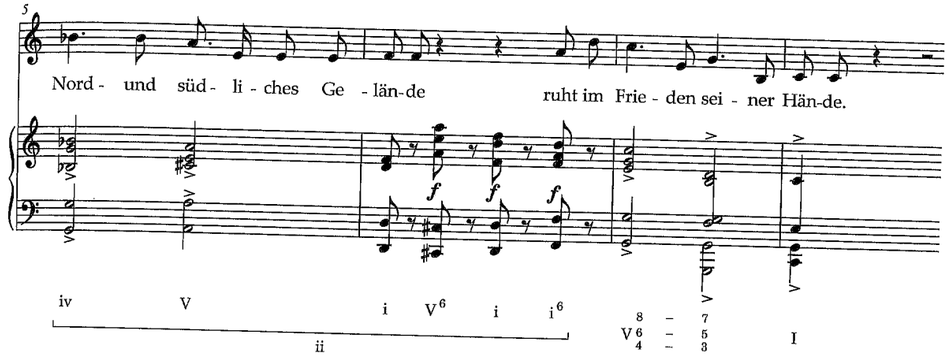
A. Schumann, "Talismane," *Myrten*, op. 25, no. 8



EXAMPLE 19.1 **(continued)**

B. Measures 5–8 of the Excerpt with Extended Tonicization



Let's apply this method of analysis to the following examples from the literature, each of which demonstrates an extended tonicization.

After a PAC closes a phrase in the first measure of Example 19.2, an unexpected and jarring C-major harmony appears in the second measure. When such an unusual event occurs, you should always look beyond individual harmonies to understand how it participates in the phrase. Given that the C-major chord becomes a dominant seventh in the third measure, it functions as an applied dominant chord leading to F minor. The tonicization of F minor (ii in the key of E♭ major) continues until the applied V/V chord. Thus, we see here an extended tonicization of ii.

The tonic in Example 19.3 is not established but merely stated before it moves to B♭ major (III) and D minor (v), in a repeating pattern (vi–V7–I). This brief tonicization of

EXAMPLE 19.2 **Beethoven, Piano Sonata in E♭ major, op. 27, no. 1, *Andante***

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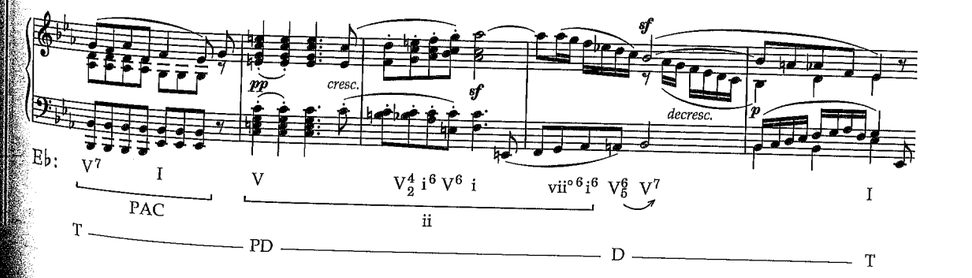

EXAMPLE 19.3 **Robert Schumann, "Sängers Trost" ("Singer's Consolation"), *Fünf Lieder und Gesänge*, op. 127, no. 1**

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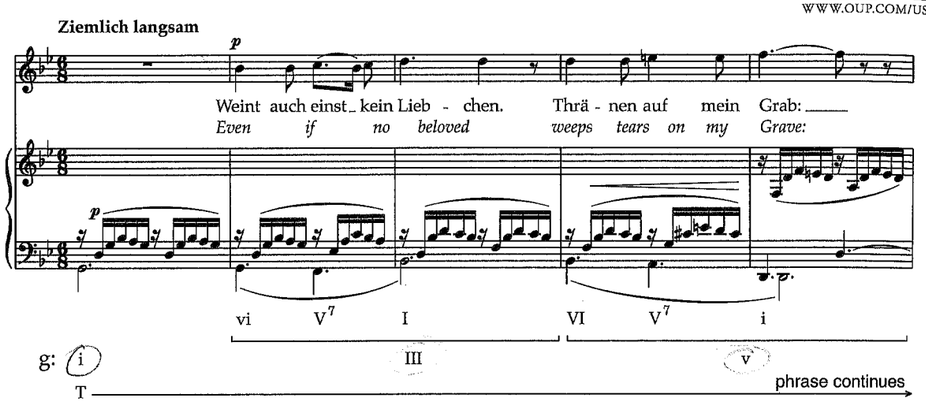

G, B♭, and D results in a large-scale arpeggiation of the tonic G-minor chord. Notice that G minor is reinterpreted as vi/III and that III becomes VI/v.

The excerpt by Clara Schumann in Example 19.4 presents an extended tonicization of ii that follows a back-relating dominant in m. 4. Consequently, we can now understand the function of the A-minor chord in m. 4: It is a iv chord in the temporary key of E minor and not some sort of minor v chord in the home key of D. The ii leads to the structural dominant, which completes the excerpt's overall progression, I–ii–V.

EXAMPLE 19.4 **Clara Schumann, "Andante espressivo," *Quatre pièces fugitives*, op. 15, no. 3**

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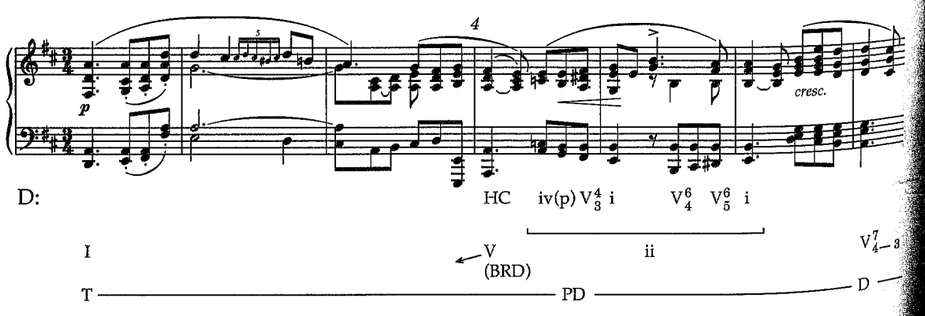

The excerpt by Robert Schumann in Example 19.5 contains tonicizations of two harmonies, vi and ii. As the second-level analysis reveals, over the course of the entire excerpt the tonicizations of vi and ii repeatedly expand the simple underlying harmonic progression, I–V–vi–ii–V–I.

EXAMPLE 19.5 **Robert Schumann, "Mit Myrthen und Rosen" ("With Myrtle and Roses"), *Liederkreis*, op. 24, no. 9**

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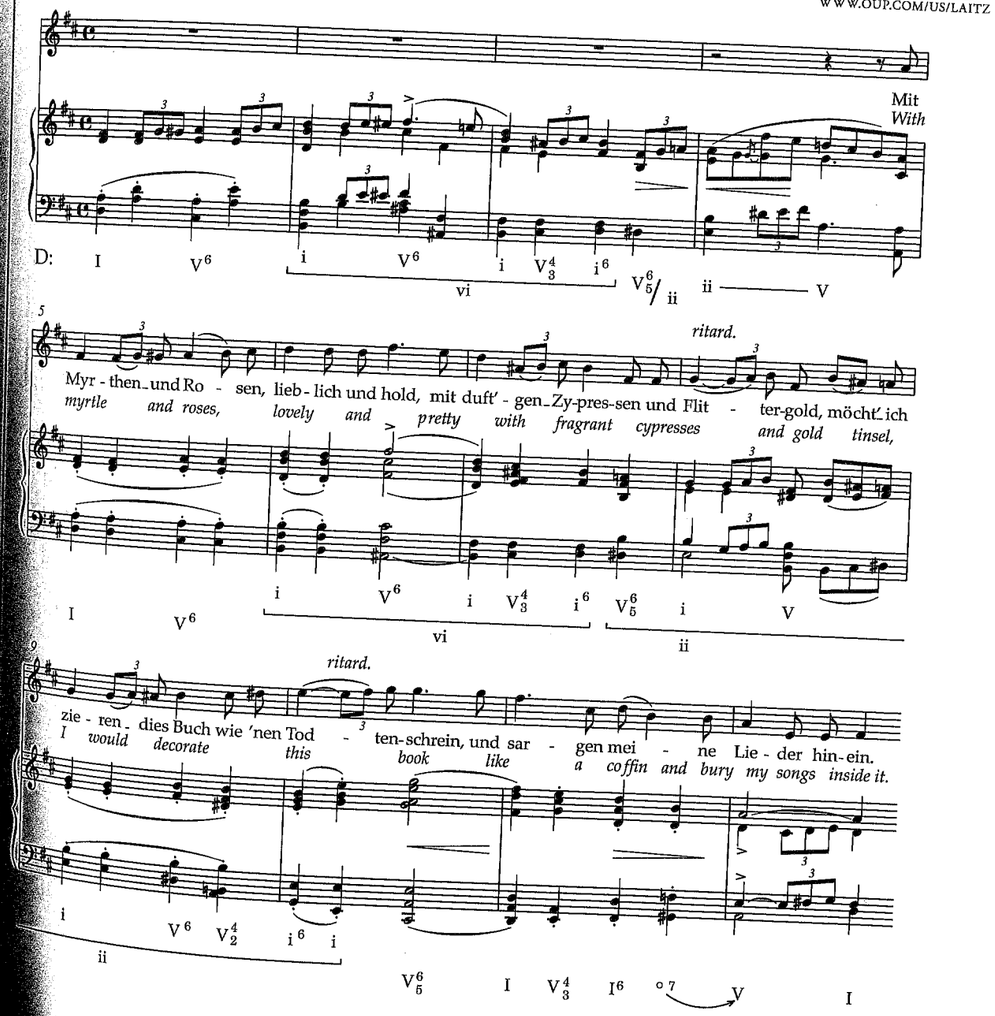

EXERCISE INTERLUDE

WORKBOOK 1
Assignment
19.1

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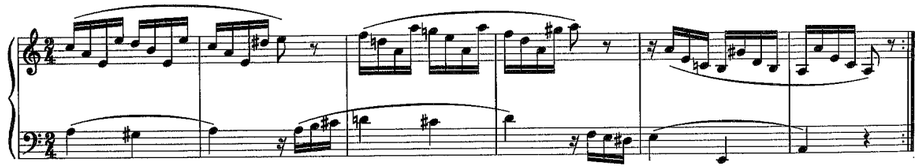
ANALYSIS

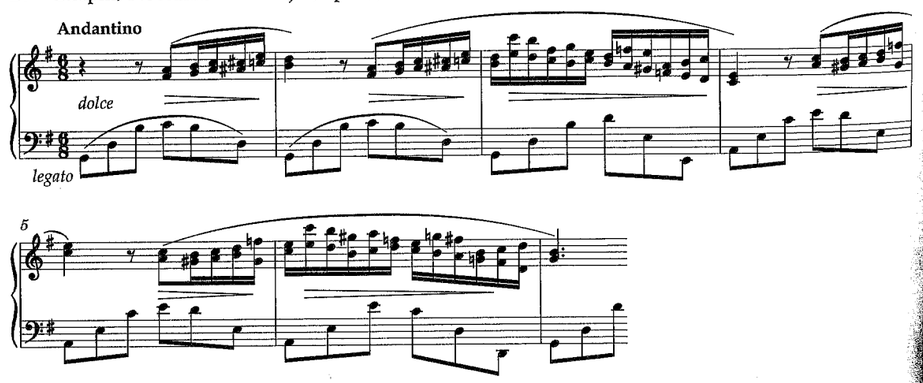
19.1
The following excerpts contain tonicizations. Listen to each example, and bracket the expanded harmony/harmonies; then provide a two-level roman numeral analysis.

SOLVED/APP 5

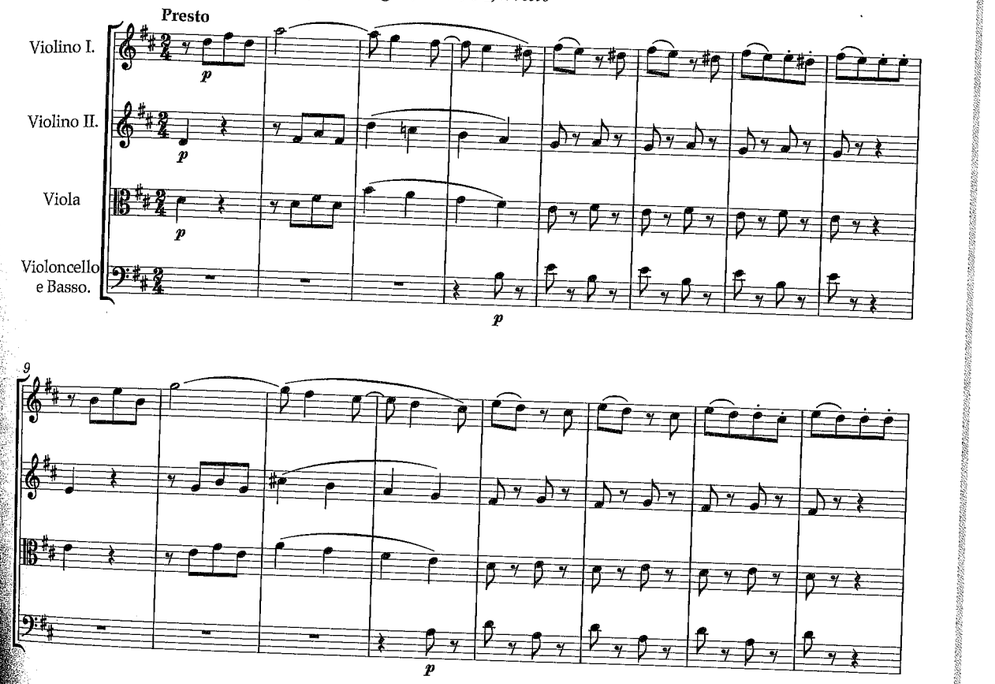
A. Clementi, Prelude in A minor, op. 19



B. Chopin, Nocturne in G major, op. 37, no. 2



C. Mozart, Symphony in D major, "Prague," K. 504, *Presto*



MODULATION

Longer tonicizations, which can occupy entire sections of a piece, are called **modulations**. Although it is difficult to draw a firm line between tonicizations and modulations, it is generally true that:

Tonicizations usually occur within phrases. They do not disrupt the feeling of the home key; they do not have strong cadences in new keys, and they are fleeting.

Modulations include a strong cadence in the new key, and the new key continues after the cadence. They give the feeling that a new key has usurped the home key (at least for the moment).

Listen to the two excerpts in Example 19.6. Each excerpt tonicizes one or more keys, but the methods and degree of tonicization are fundamentally different. The Beethoven example contains extended tonicizations that are reminiscent of those we have already encountered: The first strong cadence occurs at the end of the excerpt, with the PAC in mm. 15–16. The first phrase is in the tonic key; phrase 2 is an extended tonicization of

EXAMPLE 19.6 **Tonicization Versus Modulation**

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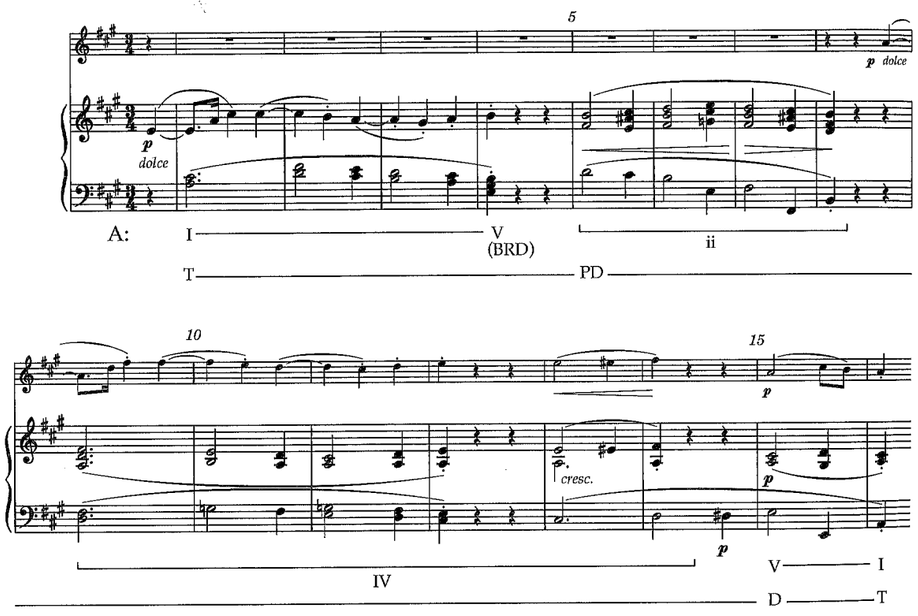
A. Beethoven, Violin Sonata in A major, op. 12, no. 2, *Allegro piacevole*



ii, and IV is tonicized until the cadence at the end. There is one overall harmonic progression, I–ii–IV–V–I, and none of the fleeting tonicizations disrupts the sense that we are hearing an A-major piece.

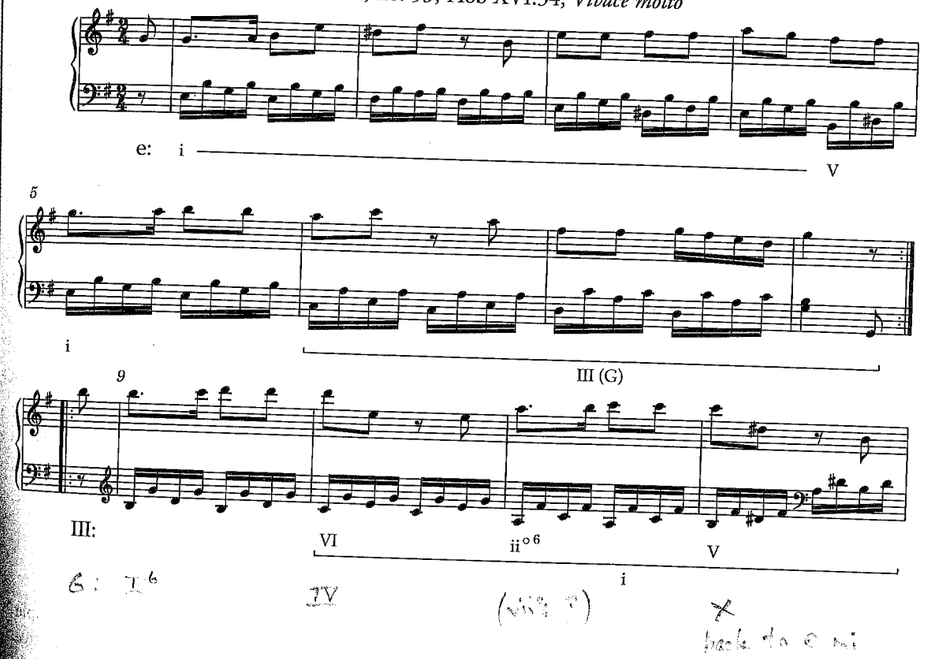
The tonicization of the Haydn excerpt (Example 19.6B) evokes a different effect. The piece begins in E minor, and the second phrase closes in mm. 7–8 with a PAC in G major (III). On reaching mm. 7–8, it seems for a moment that G has usurped the home key of E minor. The listener's sense of a G tonic is further confirmed when the music continues in m. 9. This motion to a strong, new tonal area is an indication that the music has modulated. Notice, however, that the D2 sequence leads to V, so the underlying progression is i–III–V.

Closely Related Keys

Diatonic modulations move from a home key to any of its **closely related keys**, which we define as those keys derived from consonant triads that occur on each scale degree of the home key. For example, the keys closely related to C major are: D minor (ii), E minor (iii), F major (IV), G major (V), and A minor (vi). The keys closely related to C minor—using the natural minor scale—are: E♭ major (III), F minor (iv), G minor (v), A♭ major (VI), and B♭ major (VII).

EXAMPLE 19.6 **(continued)**

B. Haydn, Piano Sonata in E minor, no. 53, Hob XVI.34, *Vivace molto*



Another way to determine closely related keys is to identify the major and minor keys whose key signatures differ by no more than one sharp or flat sign from the original key. For example, the keys closely related to C major (0 sharps/flats) are: A minor (0 sharps/flats), G major (1 sharp), E minor (1 sharp), F major (1 flat), and D minor (1 flat). The keys closely related to C minor (three flats) are: E♭ major (three flats), F minor (four flats), A♭ major (four flats), G minor (two flats), and B♭ major (two flats).

Although it is possible to modulate to any major or minor diatonic key, we will focus on the most common modulations, which are listed in order of importance:

- Major keys tend to modulate to V, vi, and iii.
- Minor keys tend to modulate to III, v, and VI.

Analyzing Modulations

We interpret the new key in relation to the initial tonic (by roman numeral) and its function within the overall harmonic progression (e.g., as part of a large-scale harmonic arpeggiation).

We also identify the point where the original key and the new key are momentarily fused, a point where a single chord, called a **pivot chord**, that is diatonic in both the

existing key and the new key smooths the connection between the two keys. Example 19.7 illustrates the modulatory process using a pivot chord.

EXAMPLE 19.7 **Mozart, Piano Sonata in D major, K. 284, Thema, *Andante***

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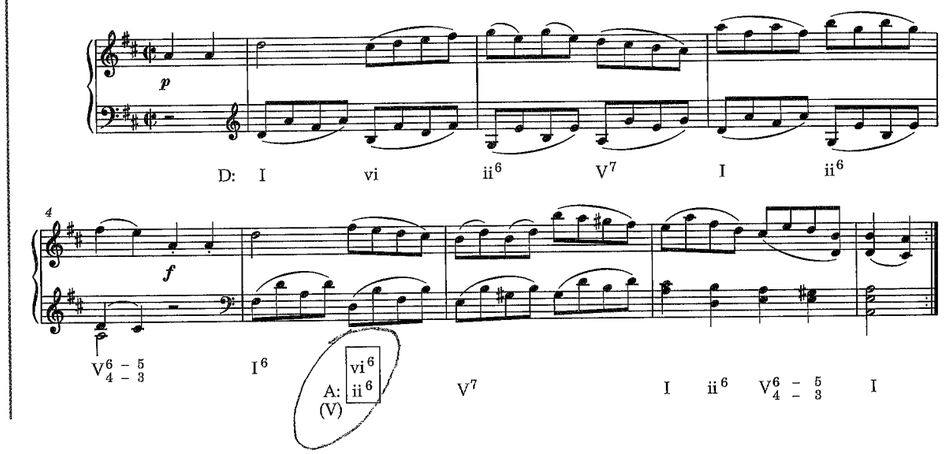

To analyze modulations:

1. *Look for the pitches that differ between the old and the new keys.* Consider Example 19.7, which modulates from D major to A major. The pitches that are exclusive here are G (in D major) and G♯ (in A major). The G♯s begin in m. 6, which means that A major is already in effect in that measure.
2. *Identify the last chord that is diatonic in both keys. If this is not a second-inversion ($\frac{6}{4}$) triad, then it can be a pivot chord between the two keys.* In Example 19.7, the final chord in m. 5 is the last possible chord that is diatonic in both the old and the new keys. It is vi^6 in D major and ii^6 in A major; therefore, it is a good candidate to be a pivot chord. The rare nature of vi^6—and its spelling as the common ii^6 in the new key—is one indication that the key is already changing.

Writing Modulations

You must test your modulations with performance, because often what looks like a successful pivot chord may, in actuality, not work at all. This is because in addition to the following voice-leading rules, you must establish two keys in a convincing manner. The following guidelines will help you to write modulations.

1. Figure out the potential pivot chords. Line up the diatonic chords for each key and identify chords that fit well into both keys. The best pivot chords act as app

in the new key. To avoid harsh-sounding modulations, do not use the dominant of the new key as a pivot chord.
2. When establishing the original key and the new key, make sure that the duration of the two tonal areas is balanced. Place the pivot chord about halfway into a phrase that modulates.
3. Do not rush into a perfect authentic cadence immediately after the pivot. Try inserting a contrapuntal cadence or EPM, and close with a structural cadence only after you have strongly implied the key.
4. Use a stepwise soprano line to move to the strongest possible cadence in the new key: a PAC using a cadential six-four chord.

Let's create a phrase that modulates from F major to D minor. We first identify the potential pivot chords. *Where the chord qualities match between keys, you have a potential pivot chord.*

F major:	I	ii	iii	IV	vi	vii°
D minor:	III	iv	v	VI	i	ii°
Best choices:		*		*		*
Good choices:	*				*	
Poor choices:			*			

Start your progression with the descending bass arpeggiation, I–IV^6–I^6, and move to the pivot chord and then a strong cadence in the new key. For comparison, try out five possibilities for a pivot chord (Example 19.8). Listen to and study each progression, and identify which pivot chords work well.

Modulation in the Larger Musical Context

Very few compositions end in a different key from the one in which they begin. Accordingly, modulations will never displace the prevailing tonic, and modulations in tonal music participate in a single overall harmonic motion. For example, a piece in C minor might modulate

EXAMPLE 19.8 **Pivot Chords in a Modulation from I → vi**

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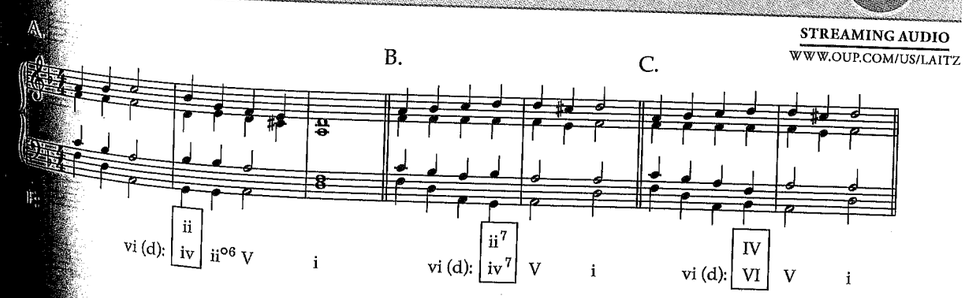
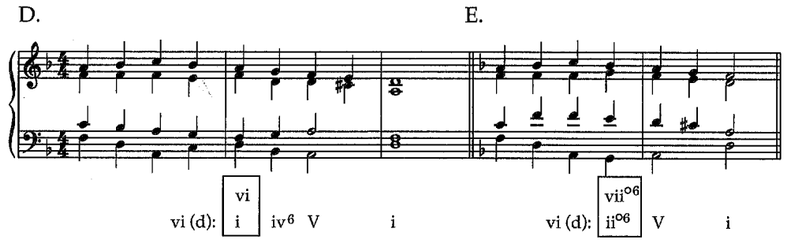


EXAMPLE 19.8 **(continued)**



to E♭ major and F minor before leading to the dominant and returning to C minor to close the piece. This series of keys would constitute a large-scale progression in C minor: i–III–iv–V–i. When analyzing modulations, you should refer to the new key in terms of its relationship to the original tonic. For example, a modulation from C major to G major should be viewed as a modulation from I to V; a modulation from F minor to D♭ major is a modulation from i to VI. Listen to Example 19.9 and note the cadences and keys.

The first eight measures include a modulation from G major to D major. Starting at m. 9, we have a modulation to E minor, followed by a return to G major. Therefore, the overall harmonic motion is as follows:

m. 1	m. 8	m. 16	m. 21	m. 22	m. 25	m. 26
G: I	V	vi	V	I	ii^6_5 V	I
I———		vi	V	I	ii^6_5 V	I
T———					PD D	T

EXAMPLE 19.9 **Handel, Prelude in G major**

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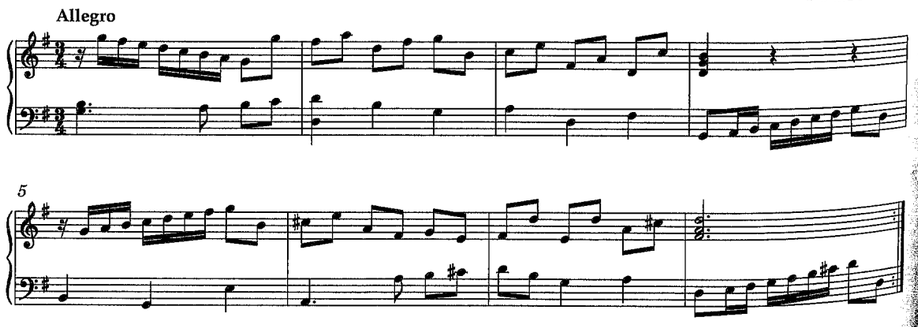
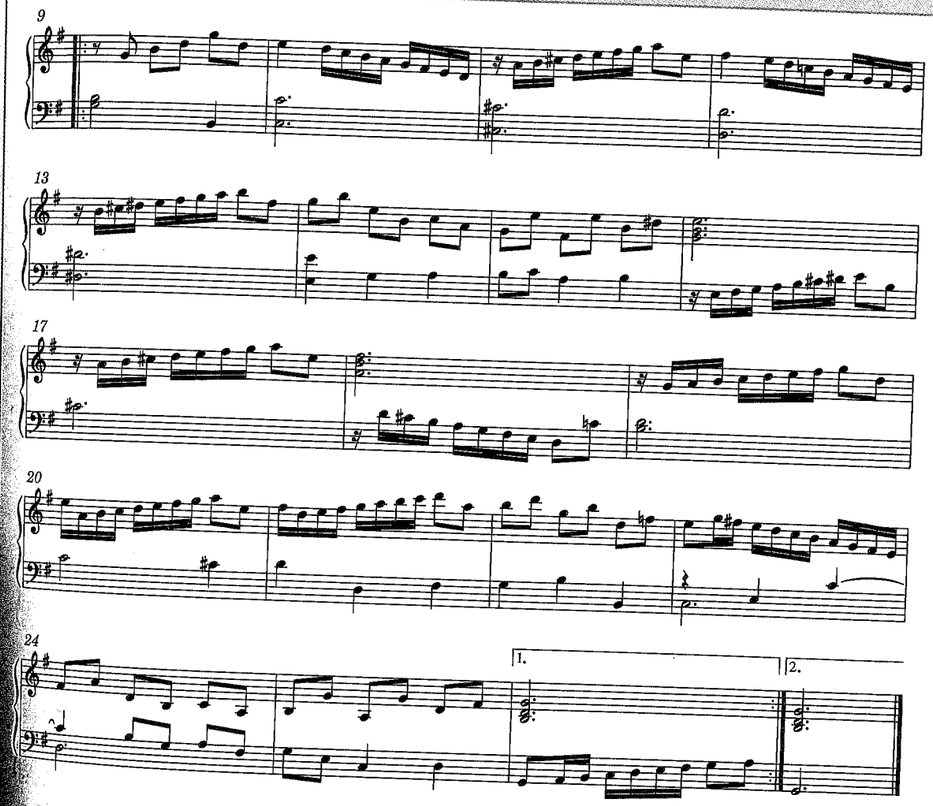


EXAMPLE 19.9 **(continued)**



The keys participate in the overall harmonic motion. The modulation to V in m. 8 is subordinate to the larger I–vi–V–I that leads to m. 22; this progression is embedded within a larger I–ii^6_5–V–I that occurs over the entire example.

The Sequence as a Tool in Modulation

The function of a pivot is not limited to a single chord. Often, several chords that function in two keys will work together to create a **pivot area**. For example, a pivot chord might be expanded or tonicized. Or a group of chords that share the same harmonic function (such as pre-dominants IV and ii) might be coupled through a voice exchange, creating a pre-dominant complex that works in both the starting and ending keys.

Sequences, too, make terrific pivots. In fact, one of the two functions of a sequence is transitional: It frequently takes the music from one harmonic area to another. Many