Composed by Leonard Bernstein in 1957, *West Side Story* has been described by critics as “ugly,” “pathetic,” “tender,” and “forgiving.” The *New York Times* theater critic Brooks Atkinson said in his 1957 review, “Everything contributes to the total impression of wildness, ecstasy and anguish. The astringent score has moments of tranquility and rapture, and occasionally a touch of sardonic humor.”

Watch the performance of “Tonight” from the musical *West Side Story*. In this scene, the melody begins in the key of A♭ major, but after eight bars the tonal center changes. And in a moment of passion and excitement, the tonal center changes again. By measure 16, the tonal center has changed four times. Talk about a speedy courtship!
Study the chord progression from the opening ten bars of “Tonight.” What chords are chromatic in the key? Can they be explained as secondary chords? Based on the chord progression, can you tell where the tonal center changes?

\[
\begin{align*}
E_b/B_b & \quad A_b & \quad B_b/F & \quad A_b & \quad B_b/F \\
\text{Tonight, tonight, It all began tonight,} & \\
A_b & \quad F- & \quad G- & \quad G_b^7 & \quad C_b
\end{align*}
\]

I saw you and the world went away to - night.

A change in tonal center is called a **modulation**. For a modulation to occur, several things must appear in the music.²

- Consistent accidentals. In order for the tonal center to truly change, accidentals must be added or deleted to indicate the new key.
- Strong cadence in the new key. Typically the new tonal center is firmly established with an authentic cadence in the new key.

While the criteria above are certainly important, it is essential that you use your ear to determine whether a modulation has occurred. Listen to “Tonight” again. Hum the opening tonic on the pitch $A_b^\flat$ out loud as long as you can. Did you notice that you began to feel less and less sure of your pitch? That is because the opening tonic is no longer applicable after measure 10. Although it is important to note that a modulation has occurred, it is even more crucial to understand how the effective modulation took place.

**PIVOT CHORD MODULATION**

The most common type of modulation is called a **pivot chord modulation**. In this type of modulation, a particular chord serves two functions, both in the original key and the key to which you are modulating.

Play the following progression on your guitar or on the keyboard. Be sure to account for the new accidental of $E#$ once the key modulates to $F#$!

\[
\begin{align*}
B: & \quad B & \quad B/C# & \quad E & \quad F# & \quad G# & \quad A# \\
& \quad I & \quad I^6 & \quad IV & \quad V & \quad vi \\
& \quad ii & \quad V & \quad iii & \quad Cad & \quad V^7 & \quad I \\
F#: & \quad G# & \quad C# & \quad A# & \quad F#/C# & \quad C#^7 & \quad F#
\end{align*}
\]

So what chords can be used as pivot chords? Study the diatonic chords found in both B major and $F#$ major. Chords shared between the two keys include B major, $F#$ major, and $G#$ minor; any of these chords can be the pivot chord.

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¹Many of the chords in the progression include added seconds. They are not listed within the progression here.

²Often a modulation will move to a closely related key. A closely related key is any key adjacent on the circle of fifths. Another way to determine closely related keys is to add or remove a sharp or flat from the key signature. For instance, if the original key is E major, removing a sharp will create the key of A major and adding a sharp will create the key of B major. The keys of A major and B major (and their relative minor keys of $F#$, $G#$, and $C#$) are all closely related keys to E major.
The fifth chord in the progression functions both as a submediant chord in the key of B major and a supertonic chord in the key of F♯ major. The sixth chord in the progression introduces the new pitch of E♯, the leading tone of the new key of F♯ major. Once the E♯ is established in the C♯ major chord, the tonal center of B is no longer valid. The strong cadential pattern at the conclusion of the progression solidifies the new key of F♯ major.

**Pivot Chord Modulation in Context**

Study the chorale harmonization of Mozart’s *Abendruhe* while playing through the example. The introduction of the E♯ is our first clue that something has occurred in terms of tonality. Is it a secondary chord? Trust your ears. Has the tonic changed?

Complete a lead sheet and Roman numeral analysis for measures 7 and 8. What type of cadential pattern is found here? The cadence in F major is solidified with the cadential six-four. So, where is the pivot chord? There are several options; however, the chord before the cadential pattern would function as the I in the key of B♭ major and the IV in the key of F major. How does Mozart eventually return to the key of B♭ major? An analyzed score of *Abendruhe* is found on pages 4 and 5.

Mozart, *Abendruhe*
Mozart, *Abendruhe* (continued)

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Mozart, *Abendruhe*

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Mozart, *Abendruhe*

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Mozart, *Abendruhe*
When the E♭ returns in measure 11 (along with the F7 chord), it is clear that the tonal center has returned to B♭ major. The chord in measure 10 can be explained in both the key of F major and B♭ major; therefore, the G minor seventh chord is our pivot point back to B♭ major.

**ARTIST IN RESIDENCE**

**Music’s Monarch: Leonard Bernstein (1918–1990)**

Leonard Bernstein has been called “Music’s Monarch” because of his incredible impact as a composer, conductor, educator, and philanthropist. Born in Massachusetts in 1918, “Lenny” was trained on the piano for countless hours as a youth. It was at Harvard that he began to study composition seriously with well-known teachers including Walter Piston and A. Tillman Merritt. His earliest musical influences were Gershwin, Copland, and Stravinsky. Bernstein considered it of utmost importance to be a performing composer and worked extensively to educate and inspire young artists and performers.

In Bernstein’s *New York Times* obituary, Donal Henahan writes,

> It was Mr. Bernstein’s fate to be far more than routinely successful, however. His fast-burning energies, his bewildering versatility and his profuse gifts for both music and
theater coalesced to make him a high-profile figure in a dozen fields, among them symphonic music, Broadway musicals, the ballet, films and television.

At the age of 40, Bernstein was appointed conductor of the New York Philharmonic, the youngest person to ever hold such a prestigious post. His early conducting style was edgy, energetic, and emphasized rhythm, but later he conducted performances using only his face with little hand or arm movement. Watch Bernstein's conducting of Rossini's *William Tell Overture* at the Young Person's Concert (1958) and *Candide* (1989). Discuss the differences in his conducting style in the 30-year time span.

Written in 1773 by Wolfgang Amadeus Mozart, *Symphony No. 25 in G Minor, K. 183*, has been used extensively in movies and commercials. It became even more well known after it was featured in the opening scenes of the movie *Amadeus*. Take a minute to view the performance by the Wiener Philharmoniker, conducted by Bernstein.

At the conclusion of the first section in the first movement, the tonal center shifts from B♭ major to G minor. This is achieved by a pivot chord modulation. The outlining of the fully diminished seventh chord in measure 82 can be analyzed as a viiº6 in the key of G minor and a viiº7 chord (with an enharmonic G♭/F♯) in the key of B♭ major. This chord functions as a seamless harmonic shift between the two relative keys. When the F♯ is added on the last beat of measure 82, the function of the chord as a leading tone to the new key of G minor is clear.
Called the “Savior of the American Musical,” Bernstein composed some of the best-known musicals of the 1950s, including *West Side Story* (1957), *Candide* (1956), and *Trouble in Tahiti* (1952). This was all during a time of darkness on the American stage, before the hits of Lerner and Lowe and after the success of composers such as Rodgers and Hammerstein. Bernstein wanted to bring music to the masses, whether on the American musical stage or via the new invention of the television. Bernstein was able to reach audiences in the late 1950s with lectures and performances on the TV series *Omnibus*, followed by the New York Philharmonic’s Emmy Award–winning “Young People’s Concerts.” Study the YouTube excerpt from the 1958 show. How would this particular program engage a group of schoolchildren?

### Chromatic Pivot Chord Modulation

Similar in function to the pivot chord modulation, the **chromatic pivot chord modulation** also uses a chord that functions in both keys; however, at least one of the pivot chords is not diatonic. Study the example “I Feel Pretty” from the musical *West Side Story*. The opening measures are in the key of F major and alternate between the tonic and the dominant harmony. At measure 157, the seventh is added to the tonic triad, creating a
secondary dominant chord, the V/IV in the key of F major. The chord does in fact resolve to the subdominant of B♭. However, the B♭ chord in measure 158 does not sound like a subdominant; it sounds like the new tonic!

The E♭ is consistent until measure 160, and our ear is telling us that the music has moved back to F major by 166, if not even sooner. There are two choices for pivot measures: measure 162 or measure 164. F major and B♭ major are both diatonic chords in both keys. The choice is yours, but do you hear the B♭ in measure 162 as the subdominant or the new tonic?

Leonard Bernstein, “I Feel Pretty” from West Side Story

1 Modulations are typically longer in length than the four measures presented in this excerpt. However, the melodic descent to the new tonic and the accompanying cadence solidify the new tonal center of B♭ in this phrase.
Many of the great symphonies use pivot chord modulations to change tonal centers between sections. Study the following score taken from Mozart’s Symphony No. 35 in which a chromatic pivot chord modulation occurs between the closely related keys of D major and A major. The G♯⁷ chord functions both as a secondary leading tone chord in the key of D major and the leading tone chord in the newly established key of A major.
Mozart, *Symphony No. 35 in D Major, K. 385, Mvt. I*
Now, let’s look back at the song that opened this chapter. The score of “Tonight, Tonight” is shown on the next page along with the first point of modulation. What type of modulation is used in this excerpt? On the first beat of measure 59, one might think that the chord will function as a borrowed chord built on the lowered seventh. However, the chord is actually functioning as the dominant seventh chord in the new key of C♭ major.
DIRECT MODULATION

The direct modulation is just that: a modulation that occurs directly after the cadence in the previous key. In this type of modulation, there is no transition or pivot chord, and a new section of music immediately begins in a new key.

Listen again to the first movement of Symphony No. 25 in G Minor performed by the Wiener Philharmoniker under the baton of Bernstein. In measure 29, there is a shift in tonal center from G minor to B♭. The final chord in measure 28 is a dominant chord in the key of G minor, creating a strong half cadence in the key of G minor. The new melody that appears in measure 29 is clearly in the key of B♭ major, solidified by dominant seventh chords in measures 31 and 32. The alternation from tonic to dominant harmonies also helps to solidify the key. While this section is transitional, the movement from G minor to B♭ major is direct.
Similar to the modulation by pivot chord, the pivot tone modulation includes one pitch that functions in both keys. Often the pivot pitch stands by itself, with little, if any, accompaniment. The pitch is held over from the cadence in the original key and changes function as a new harmony is played underneath the pitch.

Have one student sing the following melody line while she/he is accompanied on a guitar or keyboard instrument. The pitch F♯ in measure 6 is the pivot tone to the new key of F♯ major.
Commissioned in 1965 for the Southern Cathedrals Festival at Chichester Cathedral, the world premiere of Bernstein's *Chichester Psalms* occurred in the New York Philharmonic Hall on July 15, 1965, with Bernstein conducting. The example shown is from the middle section of the second movement of the *Chichester Psalms*. The soprano voices create a brief interlude for the soloist at this point. You may notice that the modality seems to shift between A major and A minor. Remember that a shift in modality is not a modulation! At measure 47, the soprano voices conclude with a unison on the pitch A, solidifying the key of A (major or minor). The open fifth harmony here prevents us from identifying the actual mode. The pitch A is sung by the soprano 1 voices; however, this time the A is not the tonic, but the dominant pitch of the new key of D major.

Leonard Bernstein, *Chichester Psalms*, Mvt. II
Leonard Bernstein, *Chichester Psalms*, Mvt. II (continued)

**MONOPHONIC MODULATION**

In monophonic modulation, one line acts as a transition to the new key. The line is simply a single melodic line serving as transition between the two keys. Study the example below. The unison line beginning in measure 70 serves as a transition to the brief modulation to F major.

Reviewing Chapter Objectives

- Define modulation (page 2)
- Recognize pivot chord modulation within the context of a musical score (pages 3–4)
- Recognize chromatic pivot chord modulation within the context of a musical score (page 7)
- Recognize direct modulation within the context of a musical score (pages 13–14)
- Recognize monophonic modulation within the context of a musical score (page 16)
- Analyze large orchestral works in order to analyze points of modulation and type of modulation (pages 22–28)
EXERCISES

ANALYSIS

Complete a Roman numeral analysis of the following excerpts and identify all non-chord tones. You might find it easier to list each chord with lead sheet symbols and then try to determine the function. Look for consistent accidentals in order to find the point of modulation. Identify the type of modulation after you have completed the analysis (pivot chord, chromatic pivot chord, pivot tone, direct, or monophonic).

1. Chorale Settings

C:

A:

E:

Fmin:
2. Felix Bernard, *Winter Wonderland*

He sings a love song, as we go along, walkin' in a winter wonderland!

In the meadow we can build a snowman, then pretend that he is Parson Brown.
3. Camille Saint-Saëns, “Le Cygne” from *Carnaval des Animaux*

He'll say, “Are you married?” We'll say, “No, man! But you can do the job when you're in town!” Later on, we'll con-
4. Franz Schubert, “Pause” from *Die Schöne Müllerin*

*Die Schöne Müllerin* is an extended song cycle for solo voice and piano on poems by Wilhelm Müller. The cycle follows the story of a young man in love. “Pause” is number 12 of twenty songs in the cycle. Give a Roman numeral analysis of the entire excerpt, which begins in the key of C♭ major. Be sure to circle and identify non-chord tones. There is a modulation at the end of the excerpt.
The next three pieces are all symphonic scores composed by Mozart. Challenge yourself to analyze the complete orchestral score, paying careful attention to the transposition of the instruments. Piano reductions for each score are available online at IMSLP (imslp.org).
5. Mozart, Symphony No. 41 in C Major, K. 551, Mvt. I
Mozart, *Symphony No. 41 in C Major, K. 551, Mvt. I* (continued)
8. W. A. Mozart, *Symphony No. 35 in D Major, K. 385, Mvt. III*
CREDITS

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MUSIC CREDITS

(alphabetical by song title)

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