Teaching Traditional Music Theory with Popular Songs: Pitch Structures

Heather Maclachlan

This chapter provides a guideline for teaching conventional, common-practice period music theory concepts using well-known English-language popular songs. I developed the lessons included here in the crucible of the university classroom while teaching music theory to undergraduate students at Cornell University in 2007. This approach to teaching theory, therefore, has the advantage of having been created in conjunction with recent students, who ultimately demonstrated mastery of the concepts presented and enjoyed doing so. While this tactic has not been tested with a large enough group of students to provide reliable data, it is clear that the students who participated in these lessons deeply appreciated the opportunity, and they said as much on their course evaluations, all of which were quite positive. Individuals made comments like, “It was incredible to hear what we were learning in pieces that we knew,” and “The teacher should write her own textbook using examples from modern music!!” This chapter represents a first attempt at presenting this approach to a larger audience.

BENEFITS OF INCORPORATING CONTEMPORARY POP SONGS INTO TRADITIONAL MUSIC-THEORY CLASSES

The story of how I came to use this approach to music theory demonstrates some important pedagogical principles. I was working as a teaching assistant for a professor of music theory who had developed a clear and consistent approach to the topic. Over the course of about 20 years, he honed his curriculum. He used it annually with non-music majors, who signed up
for his music theory course in order to earn a humanities credit. He taught music theory historically, presenting theoretical concepts not only in order of complexity but also in order of their chronological appearance in compositional practice. Furthermore, he was committed to initially presenting each concept by showing the students how the concept was captured in real music. All of his musical examples came from the Norton Scores (Forney and Hickman 2007), a collection of Western art music arranged in chronological order. The professor began the course with the concept of the diatonic scale, using scores and recordings of Gregorian chant to illustrate his point. He then focused on intervals, beginning with the perfect fourths and perfect fifths of parallel organum. The course concluded with Neapolitan-sixth chords encapsulated in music of the Classical period.

As a doctoral candidate in the music department, I appreciated the professor's method. The course material seemed clear to me, and I reiterated it enthusiastically during the twice-weekly sections I led, taking the students through the scores and accompanying recordings. No doubt, I would have continued down this path, convinced of its merits, had we not arrived at a moment that seems to occur in every semester: one day, in the middle of the fourth week, the teaching assistants had no course material to present during the section. "What should we do for an hour?" I asked the professor. "Ask the students how they think the class is going," he replied.

It is to my students' credit that they answered openly and honestly when I posed this question. They said that they were glad to learn about scales, intervals, chords, and so on—after all, this was why they had signed up for the course. (Although they were not music majors, many of them had studied introductory music theory in high school, and virtually all of them played an instrument.) But, they said, they were having difficulty absorbing the concepts. One young man expressed it thus: "It's hard enough learning all the different intervals—why do we have to do it with Gregorian chant? We've never heard Gregorian chant before, so that's two new ideas at once. Isn't there some contemporary music we could use for the example?"

This student and all of his colleagues, who immediately voiced agreement, hit the pedagogical nail on the head. Learners acquire new knowledge most easily when they can relate that knowledge to an idea they have already mastered. Piaget first articulated this theory of knowledge construction, arguing that children's learning is always governed by their preexisting mental maps (Piaget 1954, 350–86). When children encounter a new concept, they either assimilate that concept into their mental map or are forced to alter their mental map to accommodate the new information (Singer and Revenson 1978, 13–14). Over time, according to this "spiderweb" theory of learning, a learner's mental map develops new connections, growing increasingly large and complex. Thus, when
Teaching Traditional Music Theory with Popular Songs

we teach music theory—or any other subject—we ought to present new concepts in familiar contexts so that the students can relate these new concepts to something they already understand.

For me and my students, following this approach meant changing the musical examples used to demonstrate each new concept. For the remainder of the semester, I demonstrated theoretical concepts with popular songs. My students recognized virtually all of the songs I used as examples, and in most cases, they were able to sing along with some or all of the melody. Therefore, when I isolated part of the song and said, for instance, "This is called a suspension," the students were easily able to identify and understand the new concept. Since the sound was already familiar, the learning was a matter of assigning a label to the sound.

Importantly, our switch from historical to contemporary musical examples did not undermine the professor's goal of exposing the students to many of the works in the Norton Scores. During sections, I structured the lessons so that the new idea, embedded in the contemporary pop song, always came first. As soon as the students were comfortable with the concept (usually after hearing the song and reading the score once or twice), we moved on to standard theory exercises on staff paper. We resolved V7 chords, for example, and then discovered how composers historically used and resolved them, using the examples in the Norton Scores. The students were, therefore, able to become comfortable with a succession of music-theory concepts, to use them in assignments, and to understand the enduring importance of ideas first articulated many centuries earlier.

Popular songs are useful tools for introducing new theory concepts because of their very nature: these songs are short—usually around four minutes long—and repetitive, having a strophic or compound strophic verse-chorus form. Returning to the example above, when I wanted to teach about suspensions, using a pop tune made excellent sense. The students would be able to hear the suspension multiple times, as the verse in which it occurred repeated, and they would understand it in the context of the complete musical work. Listening to an entire pop song even multiple times takes up only a small portion of the class period and is always worthwhile since it gives students a chance to listen repeatedly for a new concept in a brief span of time.

Using pop music to teach music theory produced another benefit: students showed a more active interest in the course than they had in the early weeks. For example, one student contacted me to ask what would be taught during an upcoming class that he had to miss. When I told him that we would be focusing on "Gangsta's Paradise," he expressed genuine regret. He knew the song well, he said, and would have appreciated the chance to study it in detail. Another student came to class with an anthology of
Billy Joel songs and offered to lend it to me in the hopes that I would find material for the class in the book. These reactions make sense. Students are more likely to be invested in a class and to contribute to it when they believe that they have something to offer. Since most young adults know a tremendous amount about popular music, focusing on it as a starting point for a class gives students the opportunity to be experts at the very beginning. It is the pedagogical equivalent to laying out a welcome mat. Naturally, this increases students' confidence in themselves and increases the chance that they will articulate their own ideas during the course. Furthermore, this approach allows students to clearly link common-practice theoretical concepts to their own music making. If successful living artists use these structures and techniques in their songs, then it is easy to understand how relevant they are to contemporary practice.

**CHALLENGES INHERENT IN THIS APPROACH**

One major obstacle to using contemporary pop songs to teach music theory is the lack of available tools. Although many current theory textbooks do make use of a few pop tunes, none of the most popular texts used to teach traditional theory depends primarily on pop tunes for examples. This is most likely due to the fact that copyright privileges for many recent hit songs are prohibitively expensive (as turned out to be the case with some examples originally intended for this chapter). My solution to this problem is straightforward: I present contemporary recordings and scores in class, using them as preliminary examples of the concepts I am teaching. As described above, these songs are always initial examples of new ideas that serve as tools to introduce the next point in the music-theory curriculum. When I first developed these lesson plans, they served as a kind of bridge between the students' experiences and the still unfamiliar art-music repertoire. I needed only one copy of the recording (usually available on iTunes for $0.99 or on YouTube for free) and one copy of a transcription (also available online or in print form at your local music store).

Another challenge inherent in this approach is that contemporary examples become obsolete rather quickly. Teachers committed to using easily recognized popular tunes must constantly update their examples (for more on this point, see Stephenson 2009). The examples included in this chapter all worked well with a class of undergraduates in 2007. I offer them here to readers in hopes that they and their students will find them useful for at least some time to come. Additional examples of popular songs that can be used to demonstrate these and other topics are provided in an appendix at the end of this chapter.
GENERAL PRINCIPLES: A HOW-TO GUIDE

When using popular songs as examples, I usually followed a four-step method:

1. I verbally introduced the recording ("This song was part of the soundtrack for a hit movie called X; have any of you seen it?") and then played the song through once.
2. I presented an onscreen projection of the relevant portion of the sheet-music transcription, showing the students exactly where the notes we were going to listen for occurred. I then presented the technical term for the concept demonstrated by this group of notes and explained how it functioned in the larger musical context. Essentially, this step constituted the core of my teaching for each topic.
3. I played the recording again with the transcription still on the screen so that the students could both hear and see how this theoretical concept worked in real music.
4. I distributed an exercise sheet, which allowed students to practice identifying and constructing examples of the concept for themselves. After some minutes of working through the exercises, I presented the same theoretical concept in an art-music example from the Norton Scores. By this time, students were usually able to recognize and make sense of the concept in a less familiar musical idiom.

Readers may want to expand or alter these four steps but, in doing so, should keep the following points in mind. First, a standard piano/guitar/vocal transcription of your chosen pop song will likely be useful. The separation of melody and harmony is a helpful feature when emphasizing melodic movement or isolating a chord progression. Note that this type of score includes chord names written above the staff. I usually erased these markings since often one of our goals was to determine how best to identify a given chord or progression. However, near the end of the semester, I left the chord names in the score. The students were, at that point, familiar with Roman-numeral chord notation and were able to compare this system with the chord symbols in the sheet music. They discovered that popular music often interprets and designates note groupings differently—an important first step to understanding other analytical approaches to music.

Secondly, teachers using this method should be careful to choose recordings that feature a relatively transparent texture so that students can easily hear the four layers usually present in pop instrumentations: melody, harmony, bass, and percussion. Recordings that feature a slow tempo or a slow rate of harmonic change are particularly accessible to students who are
listening actively for a particular sequence of pitches. Most importantly, the particular theoretical concept being examined should be easily locatable in the song's form. In many of the examples below, the relevant melodic or harmonic structure occurs at the beginning or end of the chorus. Focusing on a musical moment that occurs at or near a point of structural demarcation allows students to recognize and isolate that moment more easily than in the middle of a phrase or section. Of course, if a good example is buried in the middle of a song, the lyrics can help the students locate it without too much trouble (which is yet another advantage to using English-language pop songs to demonstrate theoretical concepts to English-language students).

SAMPLE LESSONS

Diatonic Major Scale

The diatonic major scale is a more abstract theoretical construct than many of the other concepts outlined below. Students need to learn this scale, as well as other scales, but they may be hard-pressed to understand why. Providing examples of complete scales used in real music is often helpful. Many readers will, I imagine, recall that the Christmas carol "Joy to the World" begins with a descending diatonic major scale. The "Pas de Deux" from Tchaikovsky's The Nutcracker ballet is another well-known example from art music. An example of a descending major scale used in popular music is the bass line at the beginning of Procol Harum's "Whiter Shade of Pale." Another example, this time in the melody, is the verse of the Beach Boys' "Heroes and Villains," which begins on scale degree 4 and descends through more than an octave, ending first on scale degree 2 and then repeating to end on the tonic. The notes of the scale are not presented in immediate succession; many of the pitches are repeated, but the melody moves inexorably down from one note to the next.

As an example of the ascending form, I suggest presenting Leonard Cohen's well-known and oft-recorded song, "Hallelujah." This song is in strophic form, with each strophe constructed in ab form. The a section features a repeated phrase in which the melody reiterates the dominant and the submediant, while the underlying harmony moves I–vi. During the b section, the melody outlines an ascending major scale, from mediant to mediant. As in the Beach Boys example, many of the notes are repeated before they move to the next degree. Here is where having a piano/guitar/vocal score is immensely helpful: students looking at the b section melody in isolation may be tempted to identify this as a Phrygian scale. However, seeing the notes in the context of the diatonic chords that accompany them will clarify the function of these notes.
Lesson extension: the class can revisit this example after learning how diatonic harmonies are built on the various degrees of the scale. The lyrics to the first verse are "Well it goes like this / the fourth, the fifth / the minor fall and the major lift / a baffled king composing hallelujah." Students can decipher an added layer of musical meaning to the lyrics: the notes of the melody are harmonized by the chords named. "The fourth" is part of the IV chord, "the fifth" is part of the V chord, "the minor fall" is part of the (minor) vi chord, and "the major lift" returns to the (major) IV chord. The teacher may wish to describe this as a very specific and musically sophisticated example of the technique of word painting and then trace this compositional technique back to madrigals written in the 16th century.

Intervals

When I developed these lessons, the professor in charge of the course had students learn intervals by identifying them in real melodies—plainchant melodies more than 1,000 years old. I followed the same principle but used the melody from a popular song instead. The melody of Sophie B. Hawkins’s "As I Lay Me Down" features most of the diatonic intervals, including the unison and the octave, although this latter interval appears in outline form only at the end of the first phrase in the verse. The intervals in the first phrase of the chorus are: ↑ P5, ↓ m6, ↑ m6, ↓ m7, ↑ m6, ↓ m3, ↓ M2, ↓ m2, ↑ M3, ↓ M2. The beginning of this phrase is more disjunct than is typical of popular songs. Teachers will find it worthwhile to have students identify the intervals in both the verse and the chorus in their entirety. This exercise will also demonstrate that although all sizes of intervals are used in compositional practice, small intervals such as seconds and thirds generally predominate in vocal genres.

Lesson extension: this song modulates from the tonic key of B-flat major to bIII (D-flat major) at the bridge. Things become even more interesting with the subsequent key change to E major (enharmonically F-flat major). When studying enharmonic modulations, students can analyze and compare these two successive moves to the flat mediant.

Tonic, Subdominant, and Dominant Chords

A useful example to demonstrate the primary triads is "The Rose," which was most famously recorded by Bette Midler. (I used Bianca Ryan’s version with my students.) "The Rose" is a strophic aaba song form, and the a section consists of a circular progression that begins and ends on the tonic. The chord pattern of the a section is: one bar of tonic (I), one bar of dominant (V), half a bar each of subdominant (IV) and dominant, and one bar of tonic. The tempo is slow; the accompaniment generally consists of block
chords falling heavily on the beat, and chord changes almost always occur on strong beats, usually on the first beat of each bar. Therefore, the chord movement is easily perceived.

Conveniently, most published scores for this song are in C major, so students encountering these chords for the first time can analyze them without the added complication of a key signature. In the particular piano/guitar/vocal score that I use (McBroom 1977), the piano accompaniment features the roots of the chords in the left hand, played as whole notes, with the rest of the chord tones filled in by the right hand. This makes the chords easy for students to see as well as hear. It is worth noting, however, that most scores of this song show the subdominant and dominant chords in inverted form; teachers can explain the significance of this during the next lesson (see below).

The texture of "The Rose" is simple enough that students can perform this song. Pianists can easily play the accompaniment, and even non-pianists can manage it in teams of three: each student can be assigned to play one of the three chords when it appears in the progression—even beginners can play root-position triads easily enough, using two hands.

Students can compare this progression to the one used in "Kiss the Girl," an Academy-Award nominated song from the movie The Little Mermaid. This is another song that uses nothing but tonic, subdominant, and dominant chords in the harmony. The verses are based on the 12-bar blues chord pattern (see example 5.1), a harmonic progression that has provided the foundation for thousands of blues, rock, and pop songs for more than a century.

Other songs that follow this pattern, using dominant-seventh chords instead of triads, are Bill Haley's "Rock around the Clock," Chuck Berry's "Roll over Beethoven," and the Beatles' "Birthday." Little Texas's recording of "Kiss the Girl" is especially helpful as an introductory example because the bass line, which moves from one root-position chord to another, is easy to hear.

Lesson extension: the lesson built on "The Rose" (mentioned above) can be extended to include chords built on other degrees of the scale. The b section of the strophe continues in the same style but includes iii and vi7 chords. Another very common pattern including the vi chord is the "Heart and Soul" progression I–vi–IV–V, which is especially common in doo-wop and 1950's pop. It is used for the Five Satins' "In the Still of the Night," Ben E. King's "Stand By Me," the chorus of the Beatles' "Happiness Is a Warm

![Example 5.1. Basic 12-bar blues pattern](image-url)
Gun,” the verses of the Beatles’ “Octopus’s Garden” and Led Zeppelin’s “D’yer Mak’er,” and many other songs.

Inverted Chords

Although root-position chords are far more common than any other chord inversions in popular music, inverted chords are not too difficult to find. One example comes from “Trust Me (This Is Love),” recorded by Amanda Marshall. This song begins with a guitar playing the chords that underlie the chorus. This series of chords includes the first inversions of the tonic, subdominant, and dominant chords. The bass line is given below in example 5.2. Note that students will hear this chord progression many times throughout the song, so they will have repeated chances to recognize inverted chords in context. Interestingly, when the chorus occurs after the bridge (at 3:16 on the recording), Marshall sings the first two lines without harmonic accompaniment. Students can fill in the texture at this point by playing the chord progression they have learned, thereby reinforcing their understanding of how these chords support the melody.

“Till Kingdom Come” by Coldplay features a clearly audible \(^6\) chord at an easily identified cadence at the end of the chorus. It is a good example to use with students who are learning to listen for chord relationships because the entire verse is based on the tonic chord, making the tonal center of the piece easy to hear and remember. The bass guitar enters after the first verse. The bass is easy to follow in the texture as it plays the root of each chord until it arrives at the \(1^6-V-I\) cadence, when it plays the fifth scale degree. At the same time, the rhythm guitar and voice state the notes of the tonic chord, followed by the dominant.

Lesson extension: because the verse of “Till Kingdom Come” is built on the \(I\) chord, it is easy to identify the three melodic pitches that belong to the tonic triad and then identify and categorize all of those that do not. Therefore, this song is useful for learning or reviewing nonharmonic tones.

Nonharmonic Tones: Passing Tones, Neighbor Notes, Suspensions, Anticipations, and Pedals

Studying a piano/guitar/vocal score of “The Rose” (discussed above in the context of primary triads), students can perceive not only the chord

![Example 5.2. Amanda Marshall, “Trust Me (This Is Love),” opening bass line cadential 6/4 chord](image-url)
Chapter 5

Example 5.3. Amanda McBroom, “The Rose,” first phrase

progression underlying the melody but also how the melody relates to those chords. Thus, students can see and hear how nonharmonic tones work in real music. The first phrase, given below in example 5.3, contains a passing tone (P), an upper neighbor tone (N), and a suspension (S).

There are many examples of anticipations in this song; some singers use them more liberally than others, so students will identify them in various places depending on the recording chosen. Virtually every recording, however, contains an anticipation at the very end of the strophe as the harmony moves from V back to I (see example 5.4). The melody anticipates the return to the tonic pitch, moving from re to do (scale degree 2 to 1) on the penultimate syllable of the verse.

A clear example of an incomplete neighbor (Inc N or IN) occurs in the verses of “Save the Best for Last,” recorded by Vanessa Williams. In each statement of the verse, the third note in both the second phrase and the fourth phrase is an incomplete neighbor. Here the melody outlines the tonic triad, and as it leaps upward to the third of the chord, it first lands on the pitch above. The incomplete neighbor is particularly easy to spot when Williams sings the tagline of the song. This motivic pitch sequence recurs frequently throughout the song, so students have many opportunities to hear the incomplete neighbor tone, internalize it, and sing along with it.

Example 5.4. Amanda McBroom, “The Rose,” last cadence of strophe
Among the types of nonharmonic tones, students seem to find it most difficult to understand the suspension. Luckily, examples of these abound in songs that students will instantly recognize. One is "Because You Loved Me," originally part of the soundtrack for the movie Up Close and Personal, recorded by Celine Dion. The easiest to hear suspension occurs during the last line of the chorus, which states the song’s title. The melody note for "you," which is the fifth of the V chord or the supertonic degree of the key, is reiterated on the word "loved" on the first beat of the final measure. The melody then falls a whole tone to the tonic, creating a 2–1 suspension.

Martina McBride’s “Independence Day” contains a clear example of an upward-resolving suspension in the first phrase, which is repeated later in the verse. Here, the melody is almost completely static: it focuses on only two pitches, and the second is the resolution of the suspension. The melody begins on the fifth of the tonic chord, reiterates this as the harmony, changes to the subdominant, and finally resolves the dissonance by moving upward to the sixth degree of the scale (the third of the subdominant), creating a 2–3 suspension over the root of IV.

A pedal tone is featured in the introduction and through the verse of Lionel Richie’s “Hello.” The song is in the diatonic natural minor (or the Aeolian mode), and the pedal tone is the fifth degree of the scale (the dominant degree). It is played on the beat or sustained over a I–VII–VI–VII–VI–I progression that repeats four times through the verse. In the recording, we hear this tone in the middle register, but in the score I used (Richie 1984), the pedal point is the only note played on the piano by the right hand. It is, therefore, isolated on the page and easy for students to spot. A more unusual subtonic pedal is sustained through a very similar progression, I–VII–VI–VII, at the beginning of the verses in Blue Oyster Cult’s “Don’t Fear the Reaper.”

Once students have learned to identify a pedal tone, they will be able to comprehend a pedal tone in the bass voice. In art music, pedal tones occur most frequently in the bass since they derive from the pedal keyboard on an organ. One example of a tonic pedal occurs at the beginning of Martha and the Vandellas’ “Dancing in the Street.” Another easily accessible pop music example is Dan Hill’s “Sometimes When We Touch.” During the introduction and the first four measures of the verse of this song, the tonic pitch is sustained in the bass while the melody and accompaniment move freely above it. A harmonic reduction of the first phrase is given below in example 5.5.

Seventh Chords

“How Deep Is Your Love,” recorded by the Bee Gees, is replete with examples of seventh chords. Students can quickly spot them in the sheet

music as they occur in almost every measure. The short introduction, for example, includes the I(maj7) and the IV(maj7) chords. The first phrase moves from tonic to iii7 and then down a step to ii7. Note that the melodic pitches on “morn-ing” and “sun” are the sevenths of those chords, so it is particularly easy for students to hear and sing the seventh above the root in the first phrase. The second phrase begins on a secondary dominant, V7/ii, which resolves to a ii7 that sets up the final chord of the phrase, V13.

Two more contemporary examples come from the British band Coldplay. The group’s song “The Scientist” features a chord progression that repeats four times through the verse; this progression begins with a minor seventh chord built on the submediant degree (vi7). The chord progression is easily audible since the accompaniment to the melody (at least at the beginning) is dominated by block chords played on each beat.

For a chord progression that begins with a major seventh, listen to Coldplay’s “Don’t Panic.” The most useful recording of this brief song comes from the soundtrack for the movie Garden State. On that recording—more clearly than on Coldplay’s album version—the opening Fmaj7 chord is easily audible. This chord, which is VI7 in the context of the home key of A minor, is also the concluding chord in the progression that shapes the verse.

Understanding seventh chords leads naturally to learning the form and function of the dominant seventh chord. “When I Get Where I’m Going,” recorded by Brad Paisley and Dolly Parton, is useful in this regard because, like so many of the other songs mentioned, the recording features a transparent texture, making it easy to hear and identify what the voices and instruments are doing. The last line of the chorus—a spot that is easy to pinpoint—is harmonized by a V7–I cadence. Importantly, at this point, the melody consists of the fourth scale degree (fa) falling to the third (mi), making it easy for students to hear the resolution of the dissonance.
Secondary Dominants

The song "I Dreamed a Dream" from Les Misérables, which never really faded into obscurity, vaulted to super-prominence not very long before this volume went to press when Susan Boyle performed it on the television show Britain's Got Talent. It is particularly useful for teaching secondary dominants. As Boyle performs it, "I Dreamed a Dream" begins in E-flat major. The first eight bars, which are diatonic to E-flat major, repeat and then the b section begins with "But the tigers come at night" (the chord pattern in shown in example 5.6). The first melody note in this section, which happens on the downbeat, is an E-natural. This note is the leading tone of ii (F minor), harmonized with the secondary dominant V/ii, which resolves to F minor in due course in the following measure. The placement of the non-diatonic E-natural in the melody, at the beginning of a new section and after so much emphasis on E-flat, makes for a very recognizable secondary dominant. Moreover, this section continues with a string of secondary dominants.

Lesson extension: another accessible example of secondary dominants is "Lady in Red," originally recorded by Chris de Burgh in the mid-1980s. Exactly halfway through the chorus, the harmony moves to the dominant of the subdominant (V/V), which resolves to the expected IV and then to the dominant of the submediant (V/vi), resolving to vi.

Circle of Fifths

Like the diatonic major scale, the circle of fifths is a theoretical concept that students do not often hear operating in real music. It occurs more frequently in classical music and jazz than in popular music (for example, two well-known jazz standards that begin with this pattern are Harold Arlen’s "Fly Me to the Moon" and Jerome Kern’s "All the Things You Are"). However, Gloria Gaynor's well-known disco anthem "I Will Survive" consists of a repeating minor-key circle of fifths. The progression begins on the tonic; at each change of harmony, the root of the chord falls a fifth, finally landing on the dominant. The chords change precisely on the first beat of each measure, so the pattern is easy to follow.

Even students who are not adept on piano can play this bass line along with the recording. Using one finger from each hand, anyone can easily count up a fourth or down a fifth to find the next note in the pattern. Another example is The Beatles' "You Never Give Me Your Money," which uses

<table>
<thead>
<tr>
<th>V'/ii</th>
<th>ii</th>
<th>V'/ii</th>
<th>ii = V/V</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>i</td>
<td>V</td>
<td>I</td>
</tr>
</tbody>
</table>

Example 5.6. Alain Boublil, Jean-Marc Natel, and Claude-Michel Schönberg, "I Dreamed a Dream," chord pattern in b section
the same circle of fifths, but instead of ending on the dominant, it wraps back around to conclude on the tonic.

Modal Mixture

For millennial students, Elvis Costello’s recording of “She,” a beautiful *aaba* form song that was featured in the movie *Notting Hill*, is probably the best-known. Almost all of chords in the *a* section can be analyzed as belonging to the home key (diatonic major). One exception is shown in example 5.7. Midway through the *a* section, the dominant seventh of ii appears at the lyric “price I have to pay.” This resolves to ii as the next phrase begins, but then the unexpected happens: at the text “song that summer sings,” the melody note, which is the fourth scale degree, is harmonized with a minor chord. This is IV₆₃ or minor iv. The third of the chord, which is normally major in a major key, has been lowered by a half-step to create a minor chord. We can think of this chord as being borrowed from the parallel minor mode in an instance of modal mixture.

The Foo Fighters’ recording of “Learn to Fly,” which is also a good example of modal mixture, does not meet the criteria I outlined above. Heavily distorted guitars are integral to the sound in this song, so the texture is intentionally fuzzy rather than transparent. However, the chord changes are clear enough, particularly after students have had a chance to follow the sheet music or a chord chart. The song, which is firmly rooted in B major, uses modal mixture, incorporating several chords that are borrowed from the parallel minor key, B minor. The verse is built on a repeated 1–Vim–IV progression. Students will be able to easily hear the flattened scale degree 7 that is part of the minor dominant (F-sharp minor) because it is part of the melody. The chorus continues in this vein and then cadences with bVI–bVII–I. The flat submediant and the subtonic are diatonic to B-natural minor or B Aeolian, but the concluding tonic reestablishes B major.

Example 5.7. Charles Aznavour and Herbert Kretzmer, “She,” excerpt from a section

Modulation

Many popular songs have sections in different but closely related keys. An example is "One Sweet Day," recorded by Mariah Carey and Boyz II Men. The song begins in A-flat major, and the music underlines this tonal center through two statements of the verse and chorus—for example, the melody begins with and frequently returns to a ti-do motive (leading-tone to tonic). The bridge, however, modulates to the relative minor (F minor), then back to the tonic key, and then again to F minor. This is easy to hear in the recording and to see in the score because of the presence of the new leading tone, E-natural. Note, however, that the notated melody in the standard sheet music does not come close to capturing the singers' work on the recording. Teachers can take advantage of this by initiating a discussion of the limitations of notation, which is probably a needed corrective in a class that focuses so often on the "right" and "wrong" ways of notating music.

"One Sweet Day" modulates to the relative minor, which is the key closest to the home key (sharing a key signature and pitch collection) and, therefore, effects a smooth tonal transition. Eric Clapton's "Tears in Heaven" also modulates at the bridge, but in this case, it moves to a more distant key, bVII. The verse and the chorus are in A major, but the bridge section stands out starkly in G major. The previous tonic, A major, is transformed into a minor ii chord in the bridge, and the new tonic, G, appears for the very first time here. The bridge ends with the home dominant, E, leading back into A major.

Lesson extension: "One Sweet Day" can also be used to demonstrate common-tone modulation to a remote key. Immediately after the bridge discussed above, the chorus returns ("And I know," etc.) but this time in the new key of B major, enharmonically C-flat, which is the flat mediant of the home key, A-flat major. The music pivots at this point, where both the melody and the bass are on E-flat, which has previously functioned as the dominant. This pitch can be written as a D-sharp, and indeed it is in the published sheet music, beginning at the next downbeat. This respelling of the pitch reflects that its function has changed, and it is now the third of the tonic chord. This is an enharmonic change, a more advanced concept to present to theory students.

Writing Four-Part Homophony

One of the best-selling hip-hop singles of all time, "Gangsta's Paradise" by Coolio, was featured in the movie Dangerous Minds. It is useful as a music-theory example because it features an SATB choir singing a four-measure ostinato in C minor. Students will be able to hear the chordal movement

repeated over and over as the song progresses. I gave my students the two outer voices and asked them to fill in the inner voices, as shown below in example 5.8. Teachers can as easily give just the bass line or just the soprano line with the chord symbols and have students write the three remaining parts. As with many of the other examples included here, "Gangsta’s Paradise" is intended as a bridge to the less-familiar work of J. S. Bach, whose chorales are so often used as the basis for part-writing exercises.

Motive

"You Needed Me," originally recorded by Anne Murray in 1978, is a clear and well-known example of a melody built on a recurring motive. Millennial students will likely be familiar with the more recent recording by Boyzone. This song begins with an upward-leaping motive of a repeated pitch followed by an ascending octave, from upbeat to downbeat, which is repeated eight times before the verse concludes.

This song is a useful example because the motivic statement is so simple and so clear and because the verse melody consists of almost nothing but this motive. If students track how many times they hear the opening motive and then look at the notation, they will discover that what they heard as a pattern is not, in fact, precisely the same each time. The song demonstrates two important principles: that motives are often made up of a combination of characteristic melodic and rhythmic elements and that motives retain their distinctive character if, in each iteration, the rhythm is the same and the general melodic contour is the same. Students can be encouraged to bring in other examples of repeated motives, which are not difficult to find in the popular-music repertoire.
“Memories Are Made of This” may strike readers as inappropriate for this collection of current popular-music examples. Indeed, Dean Martin’s original recording is too old to be considered contemporary, but the song itself remains current, having been recorded in the 1990s by Johnny Cash and still more recently by an Italian electronica band called Kirlian Camera. Martin’s iconic recording is useful because, as in most of the above examples, he articulates the notes of the melody clearly, making it easy for students to hear the specific pitches. Once students have learned what a motive is, they are ready to learn how a motive, repeated at successive pitch levels, becomes a sequence. “Memories Are Made of This” contains a straightforward example. In the verse, just before the tagline, the melody consists of a simple motive that is repeated four times, each time beginning one tone lower, as shown in example 5.9.

The essential components of this motive are its even rhythm, its slightly syncopated position on the second and third beats of each bar, and the repeated pitch. The sequence is unified by the larger-scale repetition in the text of the words “one” and “some” on the first note of each motive.

**CONCLUSION**

Throughout this chapter, I have made the case for using pop and rock songs to teach traditional music theory concepts, to serve as a bridge of sorts to the art-music repertoire of the common-practice period. Following this approach, students will learn the now centuries-old concepts that are central to traditional music theory classes in the context of music that is immediately familiar. They will, therefore, be able to assimilate their new knowledge quickly, relate it to their own musical lives, and bridge the historical gap that exists between themselves and the music in which these concepts were first codified.

But is it appropriate, as one of my interlocutors commented, to use popular music as “bait on a hook to get students into the really important,”
deeper music of the classics?” This is a valid question. After all, pop and rock songs are part of a widely appreciated tradition that is fundamentally different from classical music, and the uniqueness of that tradition is apparent even at the structural level. Harmonies are organized differently in pop and rock, and responsible teachers should communicate this to students. Many do, of course, in rock and pop music theory courses offered at institutions around America. But what I have called “traditional” theory courses are much more widespread.

Teachers of such courses will need to address this issue with their students. They will need to explain that while contemporary popular music and historical art music have much in common and can, therefore, be usefully examined in the same theory class, analysis of pop music has given rise to an independent theory that merits study on its own terms. However, as Ken Stephenson, an important pop-music theorist, points out, “the interaction of melody and harmony in rock is best understood in relation to melody and harmony in Western music over the ages.” The approach I have outlined here—that is, using American pop songs to exemplify concepts first developed in the art music of Europe—can, therefore, serve as a beginning point for understanding the theories of both the common-practice period and our own times.

APPENDIX: POPULAR-MUSIC EXAMPLES FOR UNDERGRADUATE THEORY TOPICS compiled by Nicole Biamonte

Chord Types

**Augmented Dominant**

Gershwin, “Nice Work if You Can Get It,” opening: VI\^5 – bVI\^5 – V\^5
Chuck Berry, “School Days,” opening chords
The Beatles, “Oh! Darling,” opening chord
The Beatles, “I Want You,” end of intro

**Augmented Sixth**

Ellington, “Sentimental Mood,” end of chorus
The Beatles, “Mean Mr. Mustard,” end of bridge

**Common-Tone Diminished Seventh**

Jobim, “Corcovado,” end of a phrase
Queen, “Bohemian Rhapsody,” intro and outro
Linear Bass Patterns

**Descending Stepwise Bass—diatonic tetrachord in major**


**Descending Stepwise Bass—diatonic tetrachord in minor**

Ray Charles, "Hit the Road, Jack": i–(P)–bVI–V7
Joe McCoy, "Why Don't You Do Right?" verse: i–(P)–bVI–V7
The Animals, "Don't Let Me Be Misunderstood," verse: i–bVII–bVI–V
The Beach Boys, "Good Vibrations," verse: i–bVII–bVI–V
Stray Cats, "Stray Cat Strut": i–bVII2–bVI7–V7

**Descending Stepwise Bass—diatonic octave**

Proco Harum, "Whiter Shade of Pale": I–(P)–vi–(P)–IV–(P)–ii7–(P) (= desc. third sequence)
James Taylor, "Your Smiling Face": I–V6–vi–I6–IV–I6–ii7

**Descending Stepwise Bass—chromatic tetrachord**

The Beatles, "Being for the Benefit of Mr. Kite," verse: I–V6–bVII–ii6–V

**Ascending Stepwise Bass**

The Beatles, "Here, There, and Everywhere," verse: I–ii–iii–IV

**Sequences**

**Descending Fifth Sequence**

Simon and Garfunkel, "Mrs. Robinson," bridge: VI7–II7–V7–I–IV
Blood, Sweat, and Tears, "Spinning Wheel," verse: VI7–II7–V7–I
Chapter 5

Ascending Fifth Sequence

Jimi Hendrix (the Leaves), "Hey Joe": bVI–bIII–bVII–IV–I


Descending Third Sequence

Procol Harum, "Whiter Shade of Pale": I–(P)–vi–(P)–IV–(P)–ii–(P) (= desc. step-wise bass)

Ascending Third Sequence


Paired-Fifth Sequences

The Eagles, "Hotel California," verse: i–V, bVII–IV, bVI–bIII, iv–V

Aerosmith, "Cryin": i–V, vi–iii, IV–I, V (modified Pachelbel Canon progression)

Other Chord Progressions

Plagal Cadence

The Beatles, "Let It Be," end of verse and chorus

America, "Sister Golden Hair," end of verse and chorus

Elton John, "Rocket Man," refrain

Pink Floyd, "Nobody Home," end of verse

Deceptive Cadence

Paul Simon, "Still Crazy after All These Years," refrain: V–vi, then V–iv)

The Beatles, "P.S. I Love You," end of verse: bVI, then I

The Beatles, "I Want to Hold Your Hand," penultimate phrase: III? (V'/vi)

Cadential 6/4

Elvis Presley, "Can't Help Falling in Love," end of verse

Eric Clapton, "Tears in Heaven," end of first two phrases

The Doobie Brothers, "Long Train Running," refrain

Modulations

Diatonic Third

The Beatles, "When I'm 64," bridge: vi

Diana Ross, "Ain't No Mountain High Enough," bridge: III
Chromatic Third

The Beatles, "You're Going to Lose That Girl," bridge: bIII
The Beach Boys, "Wouldn't It Be Nice," bridge: bVI
Bonnie Tyler, "Total Eclipse of the Heart": i–bIII–bV–bVII

Modes

Dorian (i–IV)

Santana, "Evil Ways" (1969)
The Doors, "Riders on the Storm" (1971), main riff
Styx, "Renegade" (1978), verse
Pink Floyd, "Another Brick in the Wall" (1979), verse

Phrygian (1½–b2½)

Alice in Chains, "Would?" (1992), verse
Tool, "Sober" (1993), chorus

Mixolydian (I–bVII)

The Doors, "The End" (1967), a section
Steppenwolf, "Born to Be Wild" (1968), chorus
J. J. Cale, "Cocaine" (1976), verse
Grateful Dead, "Fire on the Mountain" (1978)

Aeolian (i–bVII)

The Doors, "Break on Through" (1967)
Deep Purple, "Child in Time" (1970)
Black Sabbath, "Paranoid" (1971), verse
R.E.M., "The One I Love" (1987) a section

Locrian (i½–bV½)

Black Sabbath, "Symptom of the Universe" (1975), intro and verse
Rush, "YYZ" (1981), intro

67 = major seventh
a7 = half-diminished seventh (m7b5)
5 = power chord (open fifth)

NOTES

1. A number of the songs mentioned in this chapter are published in Evans and Lavender 1999, the anthology Great Songs of the 20th Century: 1950–2000.
2. I use Jeff Buckley’s recording, and I also like k.d. lang’s version. I avoid Cohen’s own recordings because his distinctive parlando singing style sometimes obscures the pitches in his melodies. Buckley’s version is the best for our purposes as he clearly enunciates each pitch of the ascending scale.


4. Stephenson 2002, 74. See also Everett 2008, 192, for similar comments.

REFERENCES


