APPENDIX 2: THE MOTIVE

In this chapter we explore music's smallest units, called *motives*. These units provide substance, logic, coherence, and dramatic energy in music. As building blocks of larger structures, motives are the manifestation of our basic human need to organize and group, and we will see how the multilevel melodic, contrapuntal, and tonal events in music owe their very existence to these modest, often-overlooked musical elements.

INTRODUCTION

Music is an art form whose making depends on the temporal domain. That is, the element of time is required in order to play and perceive music, and, therefore, music's content is utterly governed by time. Dance is another such art form. The plastic arts, such as painting and sculpture, are in stark contrast to the temporal arts, given that they rely on the spatial domain and that our perception of these art forms depends on their occupying a physical space.

Given that individual musical sounds are fleeting, quickly being replaced by ever-new sounds, composers are saddled with the task of ensuring that each new event is heard as a logical consequence and development of previous events. They must consider not only their own interests in creating a dramatic narrative but also the listeners' abilities to perceive such a drama. Composers must maintain the delicate balance between repetition and its many degrees of variation, on the one hand, and the introduction of new material on the other.

It is within the melodic domain that we tend to find the most helpful clues that guide us through a developing musical drama. We know that a melody is constructed of a number of phrases, each of which is generally a self-contained unit that expresses a musical idea, is supported by a tonal progression, and closes with a cadence. However, we have yet to focus on the actual building blocks of melodies, those recurring pitch, intervallic, and rhythmic patterns that lie both on and below the music's surface. In this chapter we explore **motives**, which we define as the smallest formal units of musical organization. A motive, like its cousin *motif*, indicates a distinctive idea that unifies an object, whether the paisley wallpaper pattern that pulls together a room or the famous opening of Beethoven's Fifth Symphony. The term *motive*, however, actually comes from the Latin *motus*, meaning

"motion," so even though music borrows the term from everyday language, it seems to have its origin in the musical notion of time and in a pattern's development over time. One might liken motives to the amino acids that are the basic building blocks of our bodies. Indeed, motives combine to form phrase members, which in turn combine to form complete phrases. Phrases, by extension, combine to form periods. This hierarchical process can continue all the way to the piece level.

Motives must be audible, so composers imbue them with a clear identity and profile unique to the piece. Thus, motives are short, ranging in length from one beat (in a slow tempo) to one or more measures (in a faster tempo). They are composed of characteristic pitch contours (shapes) and/or rhythms. Since they are restated in different contexts, they must be flexible enough to permit various transformations. However, in order for these transformations to remain linked to the motive, its original statement must be defined well enough to withstand elaborations and transformations. Since motives are important to the development of a piece, they are given a prominent position: at the work's beginning. Pieces may, and usually do, contain more than a single motive. In such cases, they might all be presented near the beginning, or they may enter later at strategic places—often as components of new thematic material—and they may or may not be related. Motives are powerful enough to be able to represent specific characters, events, or situations, as we hear in the music of Wagner, where the appearance of *Leitmotiven*, or "leading motives," immediately conjures up images, whether the specific image is onstage or not. Indeed, weary music students on spring break in south Florida might think twice about going into the water should they hear wafting from someone's boom box a motive comprising only the following two-note figure in the low register: D–E♭ . . . D–E♭ . . . D–E♭–D–E♭–D–E♭ . . .

MOTIVE TYPES

We begin by distinguishing two types of motive: those that are independent figures and those that are components of themes.

Listen to Example 2.1. Beethoven opens his first string quartet with a unison statement of the work's central motive, a four-beat gesture comprising both pitch and rhythmic elements. The pitch motive involves a turn figure around F followed by a falling skip. The rhythmic element includes two longer note values, which, given that they appear at the beginning and end of the motive, provide a frame that is filled with shorter note values. The motive itself is set off by rests. The recurrences of the motive are rarely identical to its initial presentation. Rather, they are transformed in a variety of ways, which we will soon explore and generalize. Beethoven's motive is self-standing, an independent pitch-and-rhythm construction that generates much of the piece.

Beethoven also combines motives to create themes. The main tune of his "Pastorale Symphony" provides an example (Example 2.2). The three motives that comprise the thematic components of the tune are marked *X, Y,* and *Z* (Example 2.2A). Each is articulated by metric placement (they all are the first events in successive measures) and duration (they all occupy one measure). Thus, while they are distinct (and later in the movement each motive appears separately and is developed) and therefore identifiable, they share musical features. To be sure, the motives relate to one another not only in length, but also

EXAMPLE 2.1 **Beethoven, String Quartet in F major, op. 18, no. 1, *Allegro con brio***

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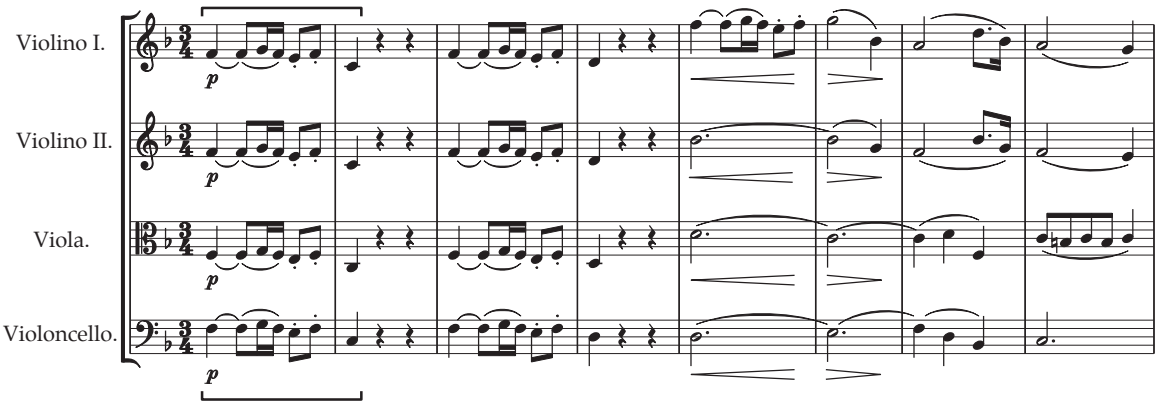

in general contour—X rises a fourth, Y falls by a fourth (not counting the large leap at the end), and Z rises a fourth and then falls. Such close relationships make sense, since unrelated motives would jeopardize the logical unfolding of the tune. A quick look at the harmony reveals a single F-major tonic harmony. If we separate the chord tones from the nonchord tones, we see that each motive outlines the interval of a third, with motive Z outlining two thirds, the second of which leads directly to the final pitch, G (Example 2.2B). And if we consider the melodic fluency of this opening tune in conjunction with the underlying tonic harmony, we can see the underlying descending stepwise line from C^5 to G^4. Therefore, multiple motives that are components of longer thematic motions

EXAMPLE 2.2 **Beethoven, Symphony no. 6 in F major, op. 68, *Allegro ma non troppo***

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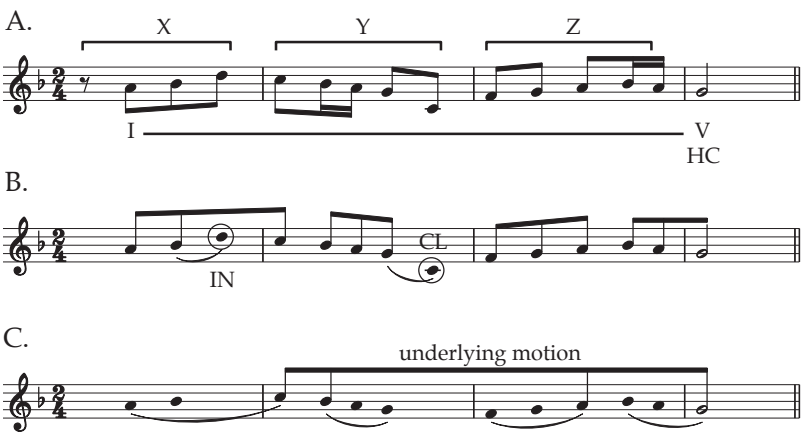

are no haphazard stringing together of ideas; rather, they are carefully ordered members in the linear unfolding of the tune.

Since motives are characterized by a striking profile in either or both of the pitch and rhythmic domains, would you consider the recurring patterns in Example 2.3 to be a motive? Again, we see a pitch pattern, this time a broken-chord figure, and a rhythmic pattern of nonstop sixteenth notes. However, this recurring gesture is not regarded as a motive. Rather, we refer to it as a **figure**, since it recurs unchanged throughout the piece as part of the texture and general patterning. We are not able to distinguish it from other pitch and rhythmic events since it is the basis of them all. In effect, this undifferentiated figure becomes a background on which other—more striking—events would be set into bold relief.

EXAMPLE 2.3 **Bach, Prelude in C major, from *The Well-Tempered Clavier*, Book I**

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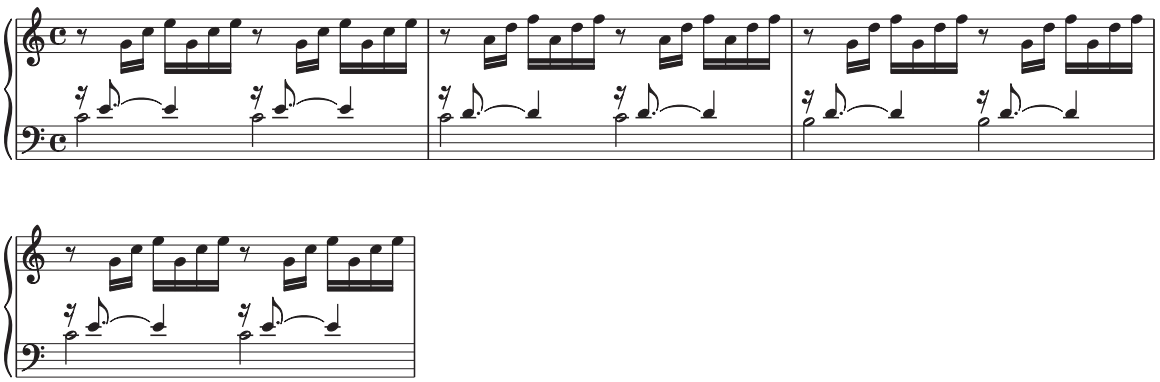

MOTIVIC REPETITION

There are three main types of motivic repetitions, based on the degree of change between the initial statement of the motive and successive statements. Exact, or **strict motivic repetition** means that the same pitch-and-rhythm structure is maintained between statements of a motive. However, strict repetition is much less common than **modified motivic repetition**, in which repetitions of the motive's pitches and/or rhythms are varied. Modified repetitions can usually be traced back to the initial motive without difficulty. **Developmental repetitions** involve significant transformation. They often require the most effort to uncover, yet at the same time they are often the most important, having far-reaching consequences in the unfolding of the piece. We now examine each of these types of motivic repetition.

Strict Repetition

Strict motivic repetitions preserve both the pitch and the rhythm of the original motive. Obviously, such repetitions impose significant limitations on the way a composer can

shape a piece, and for this reason strict repetitions are relatively rare. One place where strict repetition works well, however, is in the initial moments of a piece, when a listener must grapple with the diverse stimuli of meter, texture, instrumentation, and so forth. Literal repetition of various elements lessens the potential for information overload. Example 2.4 contains the initial statement of a two-measure motive that is strictly repeated immediately thereafter.

EXAMPLE 2.4 **Loeillet, Sonata for Oboe in A minor, op. 5, no. 2**

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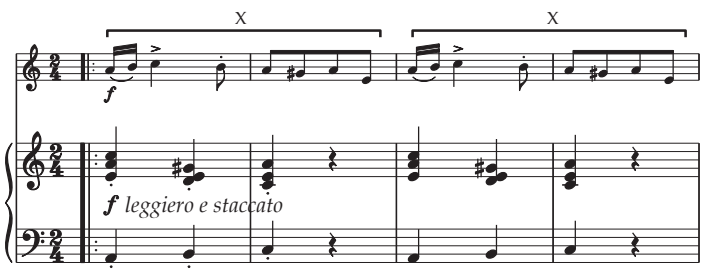

Composers use several different techniques when repeating a motive strictly. They may state the motive first in one voice and then in one or more different voices, a procedure called **imitation**. Clearly, the pacing, density, and overall musical drama are intensified when the imitation occurs in distinct registers and especially in different instruments. See Example 2.5A.

Another way composers avoid the potential monotony of strict repetition is to repeat (at pitch) the melodic motive but to cast it in a new harmonic environment, a technique called **reharmonization**. Example 2.5B illustrates. The first appearance of the C♯–B–(C♯)–D–C♯ double-neighbor motive occurs in the home key of A major, where C♯ = $\hat{3}$. Soon thereafter, Schubert reharmonizes the motive in the dark and tragic-sounding key of F♯ minor, in which C♯ = $\hat{5}$.

EXAMPLE 2.5 **Imitation**

A. Bach, Invention in D minor, BWV 775

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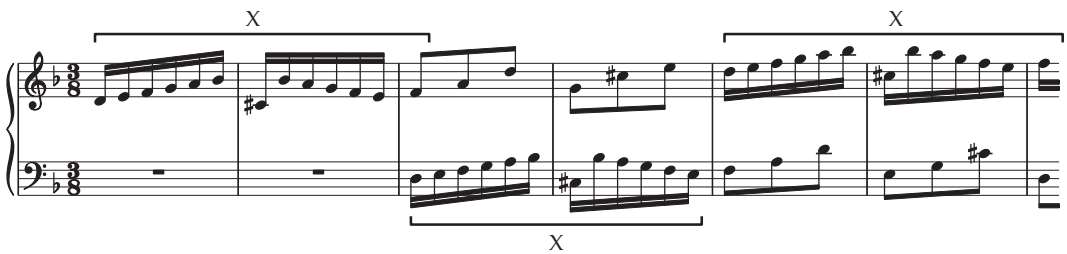
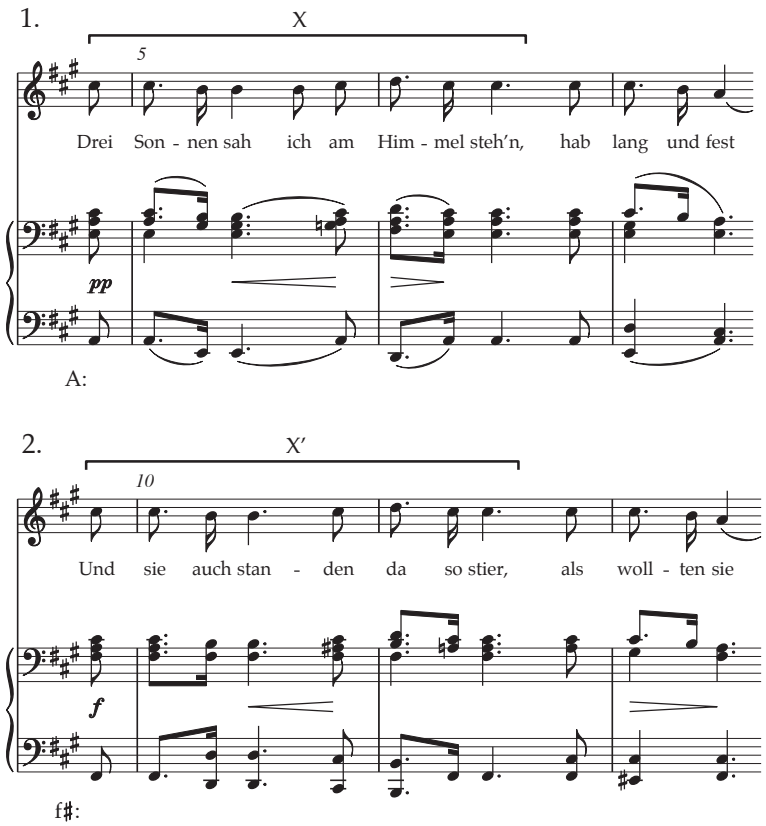


EXAMPLE 2.5 **(continued)**

B. Schubert, "Die Nebensonnen," from *Winterreise*



Modified Repetition

Modified motivic repetitions, a large and varied category, transform a motive in both degree and kind. One of the most important transformations is **embellishment**, defined as the process of adding one or more pitches to a motive. Depending on the context in which the added pitches appear, the transformations can range from being barely noticeable to actually distorting the motive beyond recognition. In Example 2.6A, Grieg opens his piano piece "Erotikon" with a two-beat motive whose immediate repetition contains a repeated F and a neighbor-note figure. However, given compensating factors such as the motive's length and that the addition of pitches leaves the overall contour unaffected, the listener easily hears a relationship between the original form of the motive and its modified repetition.

Composers often embellish motives by adding diminutions, such as chordal skips and passing tones, which risk compromising the motive's integrity and audibility. For example, Haydn uses a simple four-note scalar figure (F♯–G♯–A♯–B) as

EXAMPLE 2.6 **Modified Motivic Repetition**

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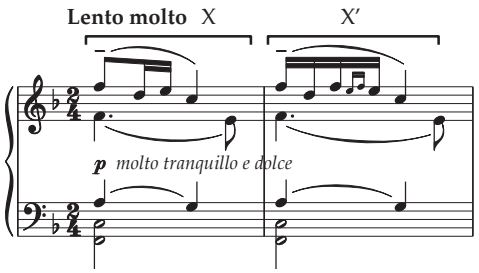
A. Grieg, "Erotikon," from *Lyric Pieces*, op. 43, no. 5



B. Haydn, String Quartet in B minor, op. 64, no. 2, *Adagio ma non troppo*

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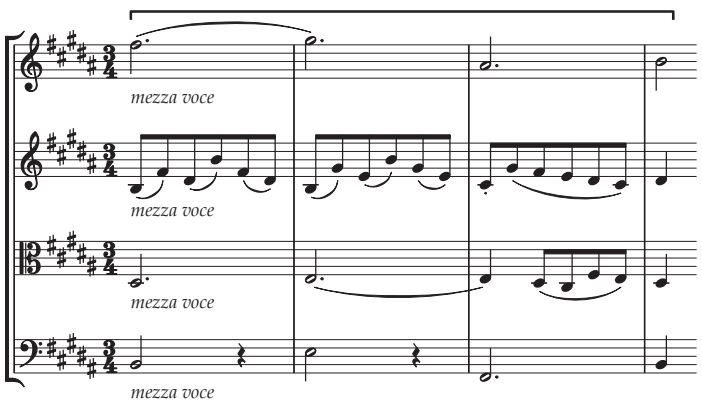

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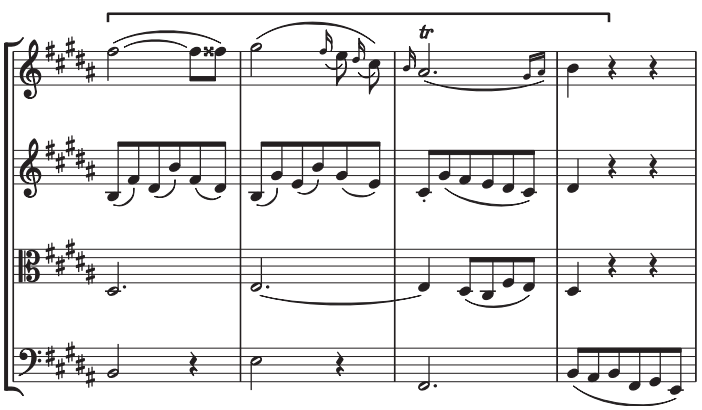
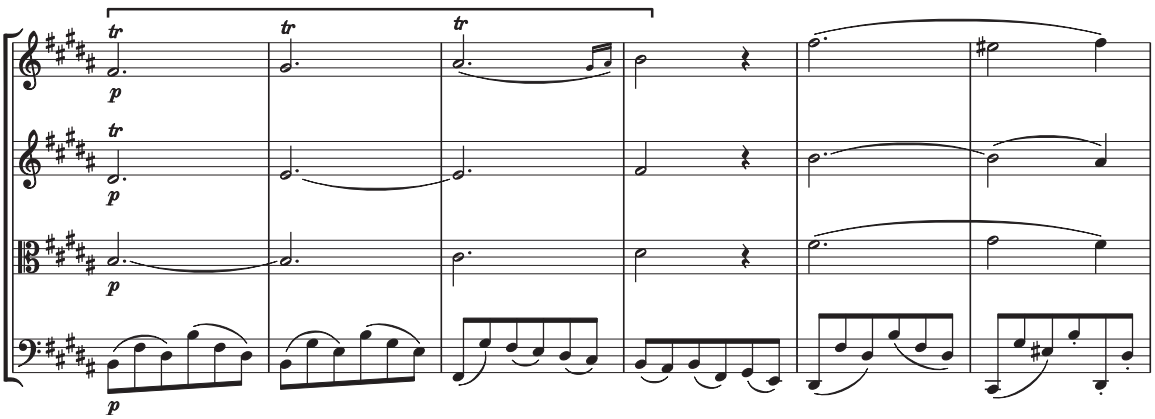


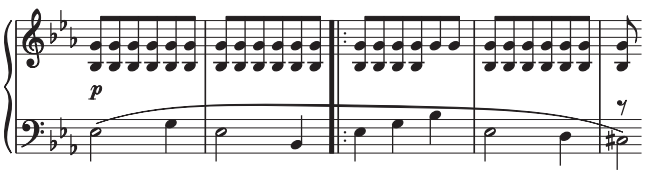
EXAMPLE 2.6 **(continued)**

3.



C. Beethoven, Symphony no. 3 in E♭ major, "Eroica," op. 55, *Allegro con brio*

1.



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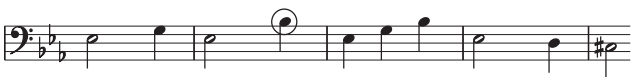

the primary motive in one of his string quartet movements, and, in order to create a more distinctive contour, he displaces the final two pitches one octave lower, resulting in the angular minor-seventh leap from G♯ to A♯ (Example 2.6B1). Haydn then embellishes the motive in its next statement by filling in not only the falling seventh with stepwise motion, but also the whole step between F♯ and G♯ (with the chromatic passing tone F𝄪 [Example 2.6B2]). Note that this rather substantial modification does not jeopardize the audible connection between this version of the motive and its initial presentation. Later, Haydn humorously recasts the increasingly embellished motive in an almost precompositional form: as a simple stepwise ascending fourth (Example 2.6B3).

On the other hand, what one might think would be the subtlest alteration of a motive—the simple transposition of one pitch up an octave—can actually undermine the character

and connection between a motive and its repetition, as in the opening of Beethoven's "Eroica" Symphony and the following contrived repetition (Example 2.6C).

Although shifting a portion of a motive (e.g., a single pitch) by an octave weakened the Eroica theme, the most common form of modified repetition is **transposition**, in which the *entire* motive is restated on different pitches. Example 2.7A again presents the opening gesture of Beethoven's "Eroica," but this time the entire motive is transposed up a major second. Notice that the relationship between motive and repetition is not compromised when the entire structure is transposed by a consistent interval to a different pitch level. Examples 2.7B and C present two motives by Mozart, each of which he transposes up by a second.

There are two types of transposition, tonal and real. **Tonal transposition** maintains the generic (numerical) size of the intervals but alters the quality of the intervals in order to remain within the key. **Real transposition** maintains the specific (both generic and quality) interval size between each member of the motive and the transposed repetition of the motive. For example, given the motive E–F–G in the key of C major, a *tonal transposition*

EXAMPLE 2.7 **Transposition**

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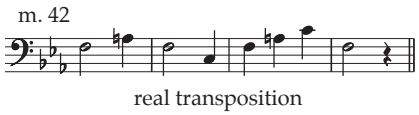
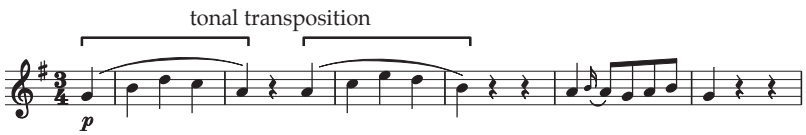
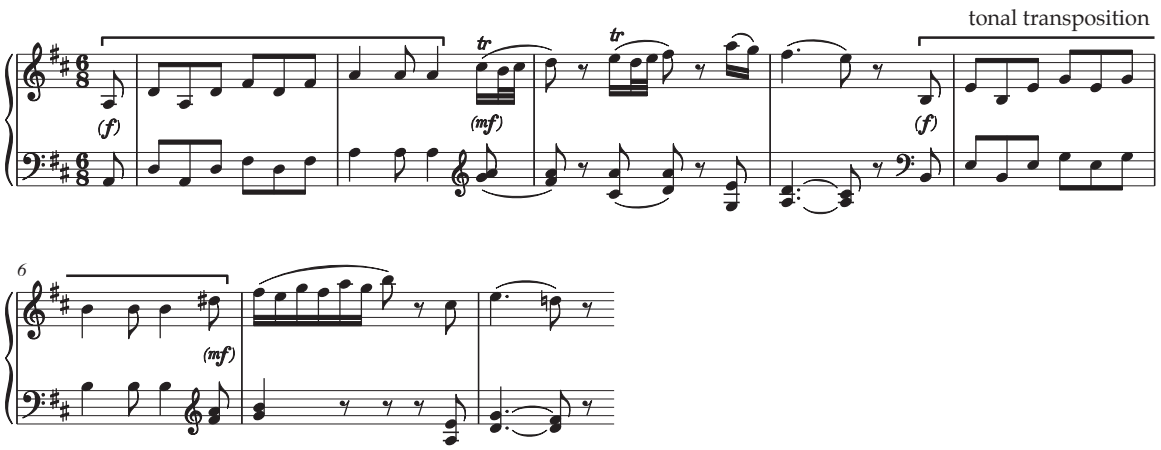
A. Beethoven, Symphony no. 3 in E♭ major, "Eroica," op. 55, *Allegro*



B. Mozart, Symphony no. 40 in G minor, Trio



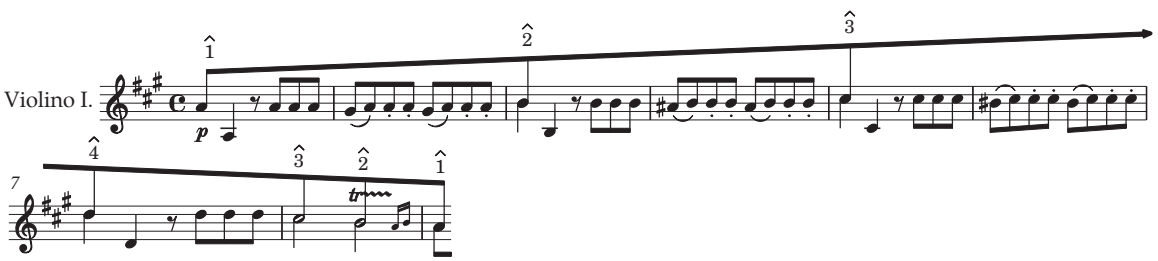
C. Mozart, Piano Sonata in D major, K. 576, *Allegro*



up a third would yield the pitches G–A–B; we sacrifice the exact intervals of the original (m2 followed by M2) in order to stay firmly in the key of C major. A *real transposition* would yield the pitches G–A♭–B♭. Here, the exact intervals are maintained (m2 followed by M2), but we sacrifice the underlying key of C major. See Example 2.7A for an example of real transposition and Examples 2.7B and C for tonal transposition.

When a motive is transposed two or more times successively *and* at a consistent interval (e.g., each repetition occurs at the tonal transposition of a second), we refer to the process as **sequence.** Example 2.8 reproduces the opening theme of Mozart's A-major symphony, comprising the sequential repetition of a two-measure motive. The motive is restated in rising steps from A to D (Î–4̂), followed by the rapid return to Î to close the eight-measure theme. Since most transposition of motives is by step, the resulting melodic fluency—coupled with the restatement of the unifying motive—creates a powerful musical unity and forward motion.

EXAMPLE 2.8 **Mozart, Symphony no. 29 in A major, K. 201, *Allegro moderato***



Imitation—the restatement of material in different voices—is not limited to the octave (or its compound), but it can occur at any interval, the fifth being the most common (Example 2.9A). The movement begins with a simple neighbor motion (C–D♭–C), which is imitated at the fifth above, on G (although stated a fourth lower). The next statement of the motive is at the original pitch level. Notice that a trill opens the movement. Since most trills occur in cadential gestures rather than as the first-sounding melodic event, we might wish to explore its possible significance. Since trills alternate the given note and the diatonic pitch that lies a second above the main note, we understand Mozart's reason for beginning the movement with this ornamental neighboring gesture: It prepares for the series of upper-neighbor motivic figures that appears in each of the voices. In fact, the falling-neighbor gesture, heard first in the soprano and subsequently in alto and tenor, is actually continued in the bass, albeit much more slowly. And because it alternates D♭ and C twice, we see that it is actually a written-out version of the trill that begins the movement.

Composers often combine techniques, such as imitation and sequence. One favorite device of composers is to overlap imitative statements of the motive so that another voice

EXAMPLE 2.9 **Imitation**

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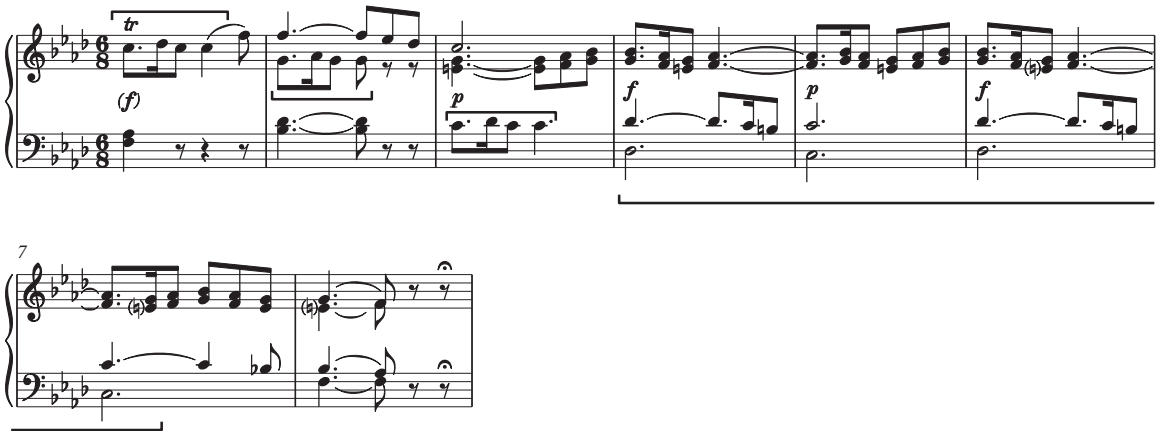
A. Mozart, Sonata in F major, K. 280, *Adagio*



B. Bach, G minor Fugue, *The Well-Tempered Clavier*, Book 1

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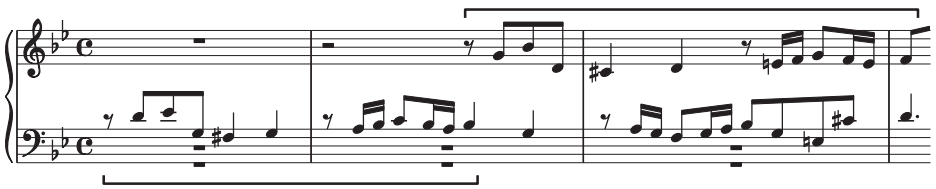

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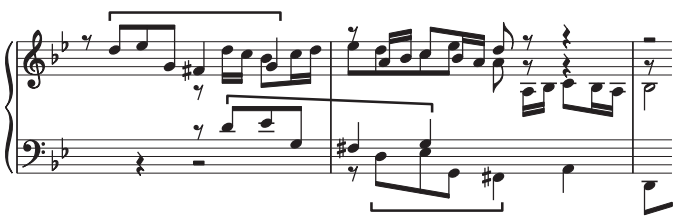

enters with its statement before the previous voice has completed its own statement, a process called **stretto** (see Example 2.9B). In Example 2.9B1, Bach presents his motive, which in this piece is called a "subject." He immediately transposes the motive up a fifth (except for the first pitch, which enters on G rather than A). In Example 2.9B2, near the end of the piece, Bach states the motive three times in three voices and in as many octaves, each statement entering before the previous statement is completed.

Additional Pitch Transformations

Some of the most important motivic repetitions transform contour. However, motives are able to withstand many types of transformation without ill effect. An example of one such

transformation is the **change of interval**, which was heard in Example 2.1; the first statement of the motive closed with a falling fourth, the second statement with a falling third. Yet the listener is still able to hear the kinship between the statements, given their contour and especially their rhythmic identity. And in the violin's solo statement of the motive (m. 5), which closes with an *ascent* rather than the expected descent, we still hear a strong connection. In fact, later sequential statements of the motive incorporate the modified, rather than the original, version of the motive.

Like transposition—which raises or lowers to the same degree every pitch of a motive—the alteration of contour and order that affects every element of a motive is common. **Inversion** is a transformation that projects the interval between pitches in the opposite direction. For example, if an interval between two pitches is an ascending major third, the inversion would be a descending major third. Since this procedure creates an intervallic reflection, it is often called **mirror inversion**. Inversion is a common compositional device because of its audibility: The contour is maintained, albeit in mirror form. Example 2.10A begins with three statements of the four-note motive, each of which is transposed by a third to traverse the tonic (B♭ major) triad. The viola follows suit; however, its inverted statements balance the cello's ascent with a descent.

EXAMPLE 2.10 **Transposition and Inversion**

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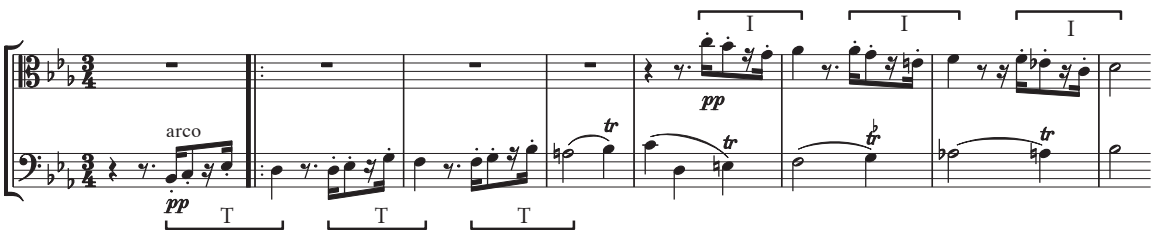
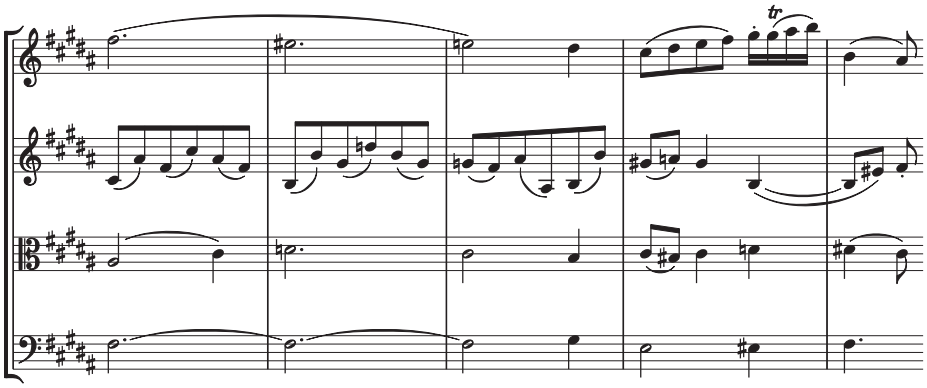
A. Beethoven, String Quartet in E♭ major, op. 127, *Scherzando vivace*



B. Haydn, String Quartet in B minor, op. 64, no. 2, *Adagio ma non troppo*



Usually the rhythm and contour of a motive are strong enough to withstand even drastic intervallic change. Indeed, the predominantly rising whole-step motion that we encountered earlier in the opening of Haydn's op. 64 String Quartet (Example 2.6B) is recast in an inverted form that is composed exclusively of half steps; but the aural relationship between the two versions is maintained (Example 2.10B).

Retrograde reverses the order of the motive's pitches: what was the first pitch becomes the last, and vice versa. As you can imagine, recognizing that a melodic line has been played backwards is not easy, since contour, rhythm, and pitches are significantly altered between the original presentation and that of the retrograde. Thus, retrograde is not nearly as common a transformation as inversion. In order to project a retrograde relationship, composers provide visual clues for the performer and aural cues for the listener in the form of accents, rests, and leaps, as Haydn does in his "Minuet in Reverse" (Example 2.11). Such palindromic structures occur occasionally in music, but not nearly as often as they do in language, which include such gems as "step on no pets" and "doc note, I dissent, a fast never prevents a fatness; I diet on cod."

Retrograde inversion is a transformation that combines inversion and retrograde. Thus, one performs an inverted form of the motive backwards. Composers rarely employ retrograde and retrograde inversion, given how difficult they are to aurally recognize. We

EXAMPLE 2.11 **Haydn, Piano Sonata in A major, no. 41, Hob XVI.27, Menuet al rovescio**

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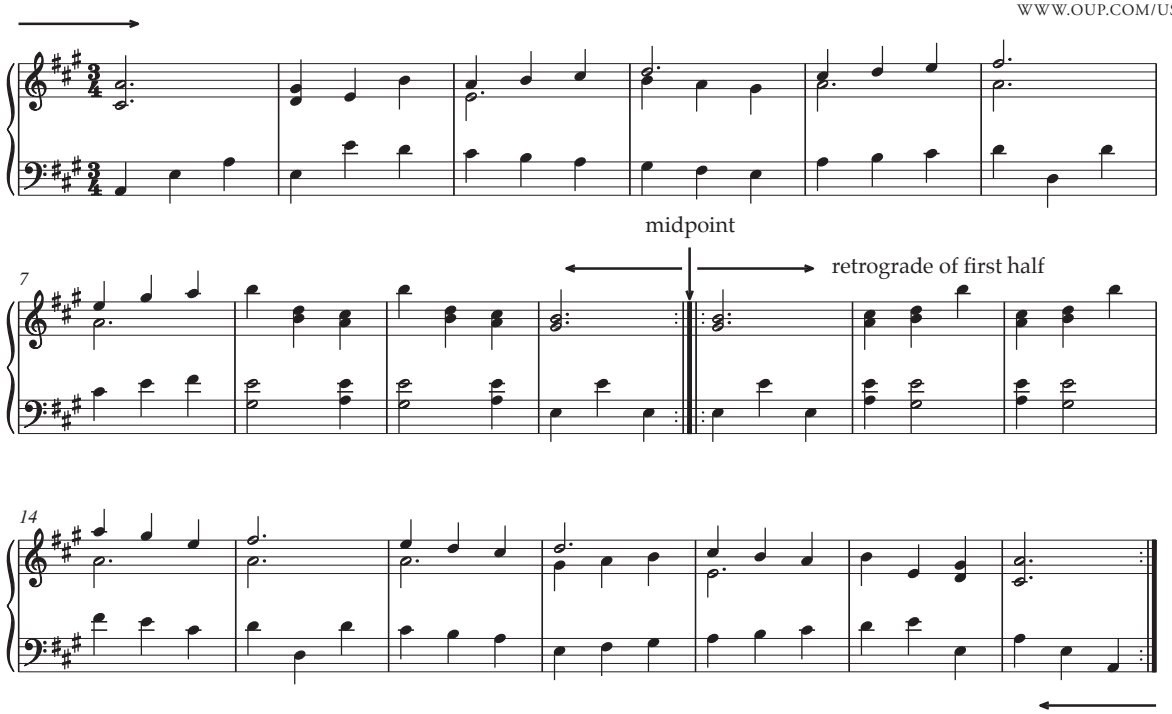
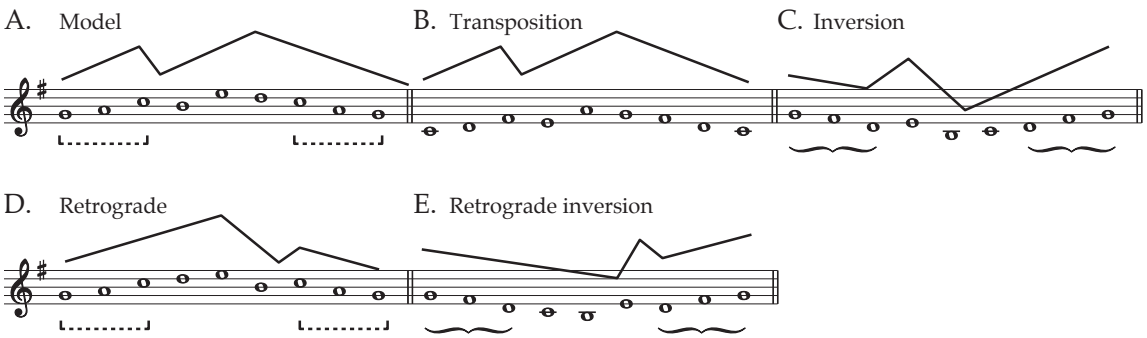


can summarize these transformations using a contour diagram such as the one shown in Example 2.12. Notice that since the model (taken from one of the *cantus firmi* in Chapter 2) creates an arch (ascent followed by descent) and that the first three pitches (G–A–C) are reversed at the end (C–A–G), the retrograde version and the model are quite audibly related. Study each of the transformations, all of which are tonal (as opposed to real, and thus remain within G major), and notice how pitches and intervals are related in each of the transformations.

EXAMPLE 2.12 **Contour Transformations**



Rhythmic Transformations

To this point, we have focused primarily on motivic transformations that involve pitches. However, rhythm is certainly as important as pitch, at least in terms of aural recognition of repetitions. For example, one need hear only the rhythmic component from the three pieces of Example 2.13A to be able instantly to identify them as excerpts from Mozart's "Eine Kleine Nachtmusik," Rossini's "William Tell Overture," and Bernstein's "America" (from *West Side Story*). Indeed, pitch change over a recurring rhythmic pattern does not undermine the integrity of the motive (Examples 2.13B1 and B2). The reverse, however—rhythmic change over a recurring pitch pattern—often will (Example 2.13B3).

EXAMPLE 2.13

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A1. Mozart, "Eine Kleine Nachtmusik," K. 525, *Allegro*

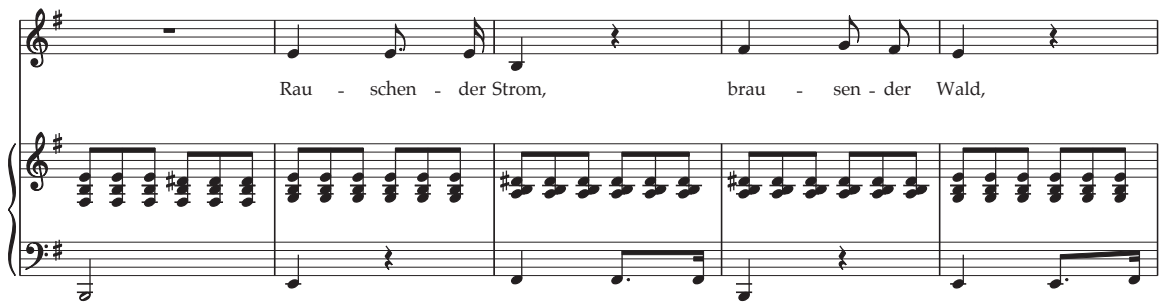
A2. Rossini, "William Tell Overture"

EXAMPLE 2.13 **(continued)**

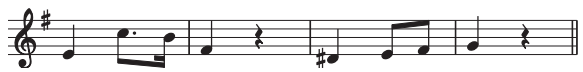
A3. Bernstein, "America," from *West Side Story*

B. Schubert, "Aufenthalt," from *Schwanengesang*

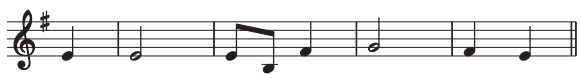
1.



2.



3.



Composers often increase or decrease proportionately the overall duration of motivic repetitions. A proportional increase is called **augmentation**, and a decrease is called **diminution**. Instances of each are shown in Example 2.14A. Example 2.14B presents the opening of the *Adagietto* movement from Mahler's Symphony no. 5. The first statement of the well-known main motive occurs in the first violin. The subsequent restatement of the tune in the cello is augmented by a factor of 2.

EXAMPLE 2.14 **Rhythmic Transformations**

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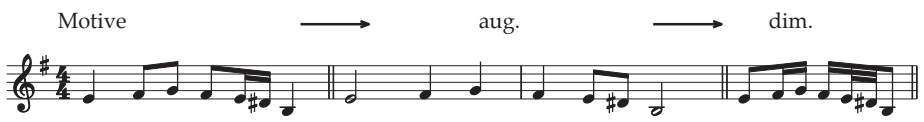
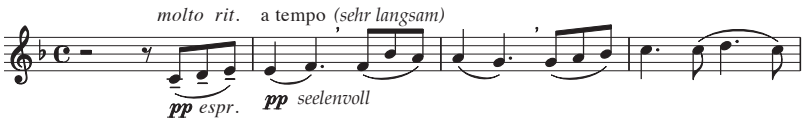
A.



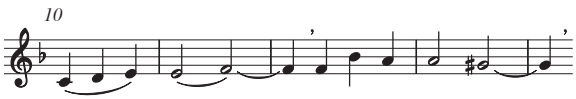
EXAMPLE 2.14 **(continued)**

B. Mahler, Symphony no. 5, *Adagietto,* mm. 1–4 and 10–14

1.



2.



Both augmentation and diminution (and other transformations, such as inversion and transposition) may occur simultaneously. When they do, the listener is treated to what amounts to a "motivic saturation." Brahms is particularly fond of juxtaposing, often simultaneously, multiple, transformed versions of a motive that include augmentation, diminution, stretto, and transposition, examples of which all occur in his song "Mein wundes Herz" (Example 2.15). Since the piano introduction's texture is already quite dense (four voices), we first focus on the initial single-line vocal melody and then return to the more complicated introduction. The vocal line opens with a falling figure that outlines the tonic triad (B–G–E), embellished by the passing tone F♯. Brahms balances this descent with a dramatic arpeggiation that spans an ascending tenth (E–B–G). The phrase closes by step descent to B.

EXAMPLE 2.15 **Brahms, "Mein wundes Herz," op. 59, no. 7**

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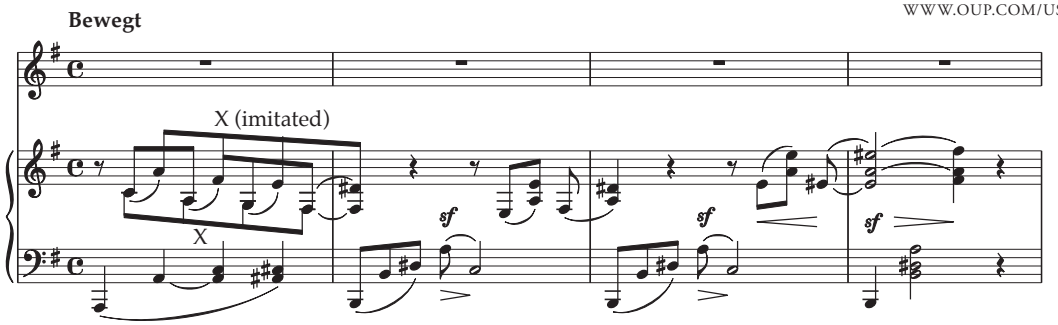
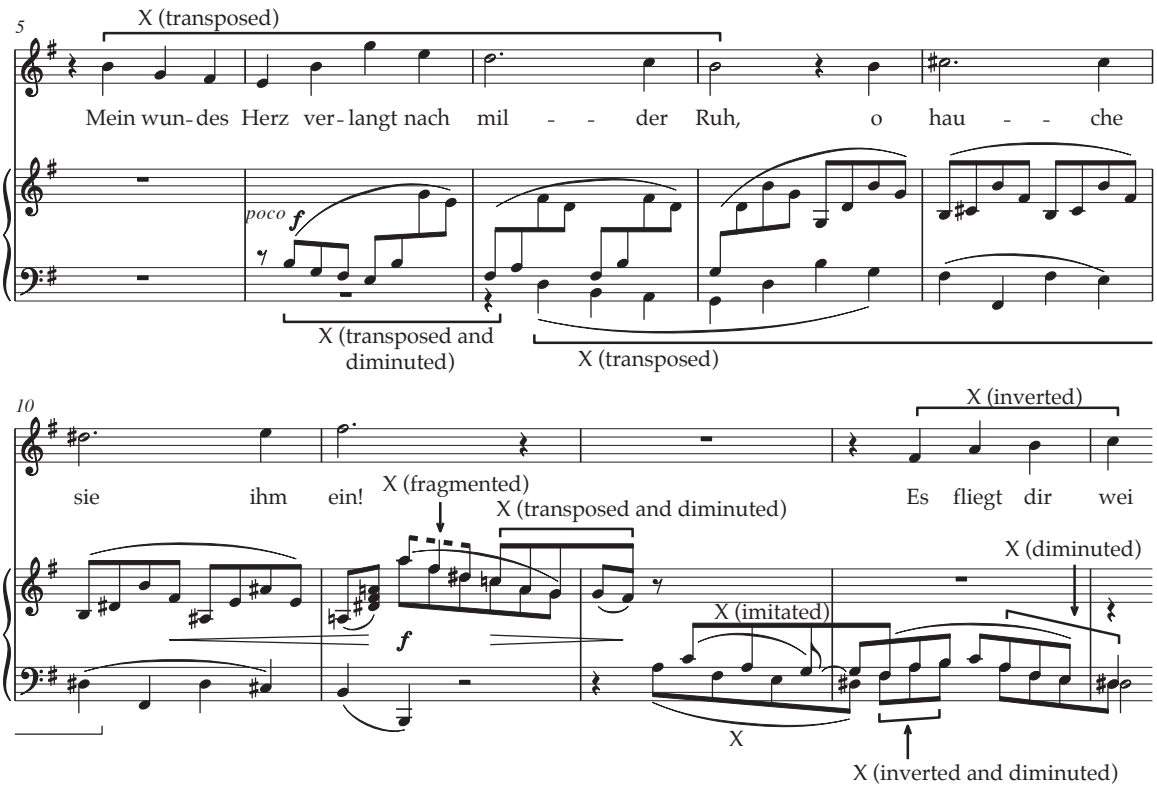


EXAMPLE 2.15 **(continued)**



Returning to the introduction, we see this motivic contour in the right hand, which begins on C: C–A–G–F♯. Brahms shadows this line a sixth above in imitation (A–F♯–E–D♯) at the eighth note, which begins a process that culminates in motivic saturation. The piano accompaniment echoes the soprano's initial pitches one octave lower, but in diminution, as eighth notes. This imitation extends through the balancing leaping gesture E–B–G–E. Immediately following, in m. 7, the piano restates the motive, this time beginning on D.

The following piano interlude (mm. 11–12) presents three versions of the motive, the first of which includes several preliminary falling thirds. The second and third statements present exact repetitions of m. 1; however, the voices that formed the sixths that open the piece have now swapped places, resulting in falling parallel thirds. This *intervallic* inversion sets up *contour* inversion that is explicitly stated in m. 13 and prepares the vocal line's entrance with its statement of the inversion of the motive, against which the accompaniment returns to its original falling contour.

Developmental Repetitions

The third category of motivic repetition—which we refer to as **developmental repetitions**—includes motivic repetitions whose pitch and/or rhythmic content are significantly altered. We will see that although developmental repetitions may not be as

readily audible as modified repetitions, they often ultimately prove to be more important, given their ability to operate at different levels of the musical structure. Further, such motives can be transformed to the degree that they spawn new motives. We will limit our discussion to three procedures, the first two of which are interpolation and fragmentation. The third type, called *hidden motivic repetitions*, is particularly important, given the ability to operate within a musical texture to the degree that the repetitions determine not only the motivic, but also the harmonic trajectory of the music. We will also explore how a motive can migrate not only from one section of a piece to a contrasting section, but also from one movement to another.

Interpolation involves the substantial addition of pitches to a motive, creating the effect of an insertion rather than a mere embellishment. The effect is equivalent to parentheses or an independent clause in language. Musical interpolations can actually appear at a variety of musical levels within a piece, from the phrase level all the way to structures such as the cadenza in a concerto. **Fragmentation** develops only a portion of a motive, such as a neighbor gesture or even a single interval. Often it is the opening, or the "head," of the motive that is fragmented, given its prominent placement and relative memorableness. Further, composers often repeat the fragments sequentially.

Example 2.16A presents a one-measure motive followed by various transformations. First, the motive is inverted (and transposed up a step). The following two measures fragment the motive, stating only its first two beats in rising seconds, with the last note (D) acting as a pedal. The motive is restated in its original form in m. 5; m. 6 maintains the rhythm but alters the contour. A two-measure interpolation begins in m. 7 as a new rhythmic figure (triplets) and pitch motive (broken-chord figure and passing motion) unexpectedly enters. Measures 9–10 return to the original motive's rhythm, which supports a new contour that leads to the final cadence.

The Haydn example (Example 2.16B) contains one phrase (the addition of the chordal seventh of V, A♭, "undoes" the cadential effect of the preceding V triad); the first phrase closes with a HC in m. 4 and the second a PAC in m. 10. The first phrase presents the one-measure motive: an incomplete-neighbor figure followed by a descending leap of an octave, with two chords that punctuate the end of the motive. The motive is repeated over the ii^6 chord and the V chord (although the descending leaps are smaller). What follows is an interpolation that prolongs the dominant, in echo fashion, of mm. 3–4. Haydn clarifies

EXAMPLE 2.16 **Additional Transformations**

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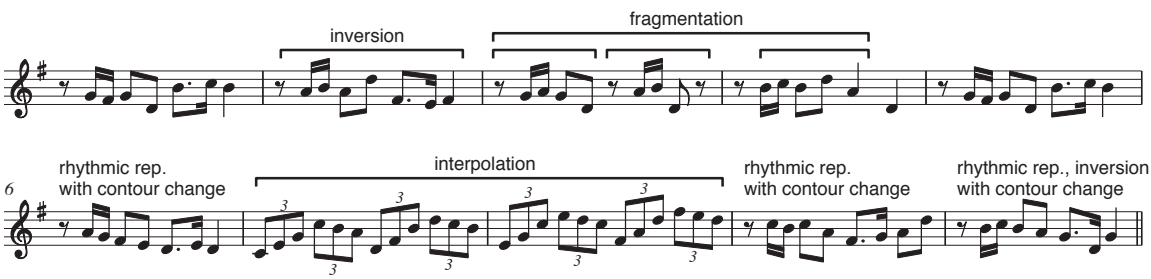
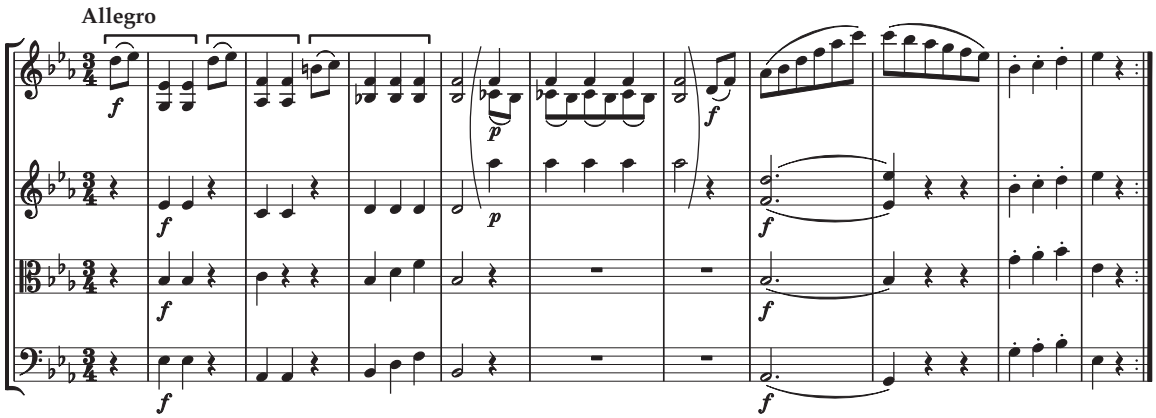
A.



EXAMPLE 2.16 **(continued)**

B. Haydn, String Quartet in B♭ major, op. 33, no. 2, Scherzo



the function of this material as an insertion by changing the prevailing dynamic level from *forte* to *piano* (returning to *forte* in m. 6) and by stating only the neighboring portion of the motive several times, with the addition of a chromatic pitch. The second phrase, then, does not begin until m. 6.

Listen to Example 2.17. The opening motivic gesture consists of two parts: an ascending broken-chord figure followed by a balancing descending figure. However, given that these two parts each contain the exact same rhythmic figure (thirty-second notes followed

EXAMPLE 2.17 **Bach, Invention in B♭ major**

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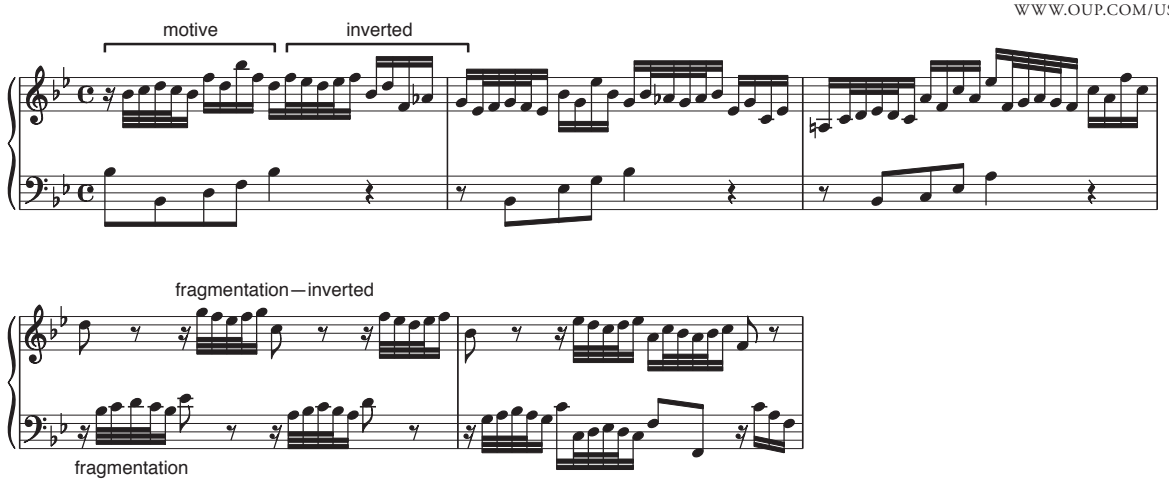

by sixteenth notes), we can refine our analysis and claim that the second part of the motive, the descending form, is a literal inversion of the first, thus altering our interpretation of what constitutes the actual motive: Rather than a single four-beat ascending and descending entity, the motive is better interpreted as a two-beat rising figure whose first repetition occurs in inversion. The first fragmentation of the motive occurs in m. 4, where only the opening thirty-second-note figure appears. Bach also states the inverted form of the thirty-second-note figure to create both imitation and, given that he repeats the figure down a step each time, sequence.

INTER-SECTION AND INTER-MOVEMENT MOTIVIC REPETITIONS

Composers unify their multisection and multimovement works in many ways, but one of the most important is through motivic connections. However, for a motive to migrate from one section of a piece (or from one movement to a contrasting movement), it must be highly malleable. For example, Mozart's Sonata in B♭ begins with the unharmonized upbeat incomplete upper-neighbor on $\hat{6}$ which falls to $\hat{5}$ which is followed by the stepwise descent to $\hat{1}$ (Example 2.18A). We hear a contrasting theme in the new key of F major in m. 23. However, a brief glance reveals that the opening gesture has migrated to this new section. This time the upper neighbor to $\hat{5}$ is complete, and the faster sixteenth-note D–C ($\hat{6}$–$\hat{5}$) mimics the grace-note figure G–F (again $\hat{6}$–$\hat{5}$) that began the piece (Example 2.18B). The first phrase of this new theme closes with a HC. The modified repetition that follows (mm. 31–38; not shown) carries the melodic line all the way down to F ($\hat{1}$ in F major).

Another, more dramatic example of motivic migration and development is found in Chopin's *Fantasie Impromptu,* a work that is cast in a large three-part form: The first and

EXAMPLE 2.18 **Mozart, Piano Sonata in B♭ major, K. 333**

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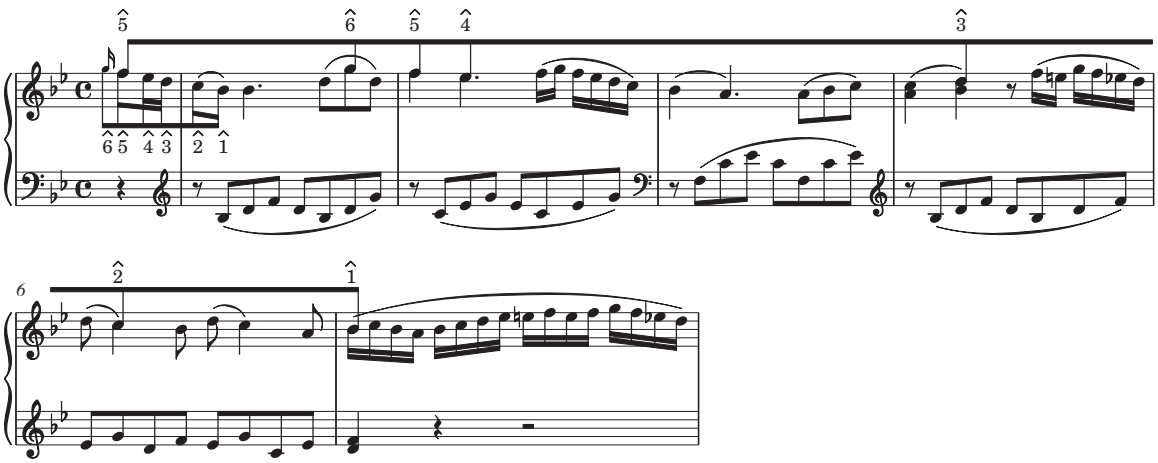
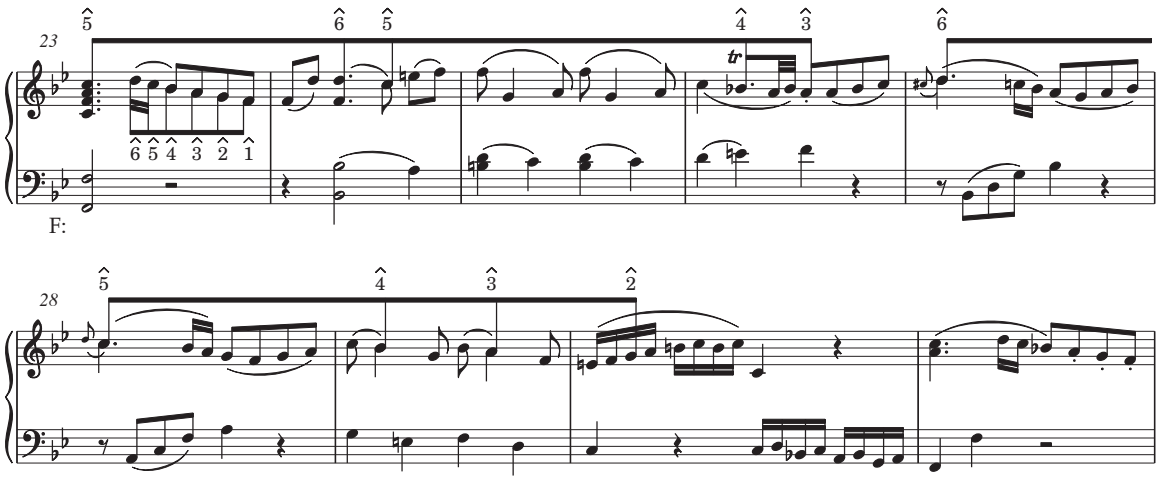
A.



EXAMPLE 2.18 **(continued)**

B.



third related parts are virtuosic and tumultuous, while the second part is lyrical and restrained. However, a transformed motivic repetition connects the two sections and unifies the piece (Example 2.19). The right-hand figure that opens the piece (m. 5) is composed of a rising one-octave arpeggiation of the tonic triad: G♯–C♯–E–G♯. This ascent is embellished by two turn figures, the first around G♯ (G♯–A–G♯–F𝄪–G♯) and the second around C♯ (D♯–C♯–B♯–C♯).

The contrasting section in the parallel major (notated enharmonically in the easier-to-read key of D♭ major) opens with a slow-moving tune that also begins on $\hat{5}$ (A♭) (Example 2.19B). Again, the melody sweeps upward, unfolding a tonic triad: A♭–D♭–F–A♭. Notice that this tune uses the nearly identical pitch classes and the order of the opening tune (save

EXAMPLE 2.19 **Chopin, *Fantasie Impromptu,* op. 66**

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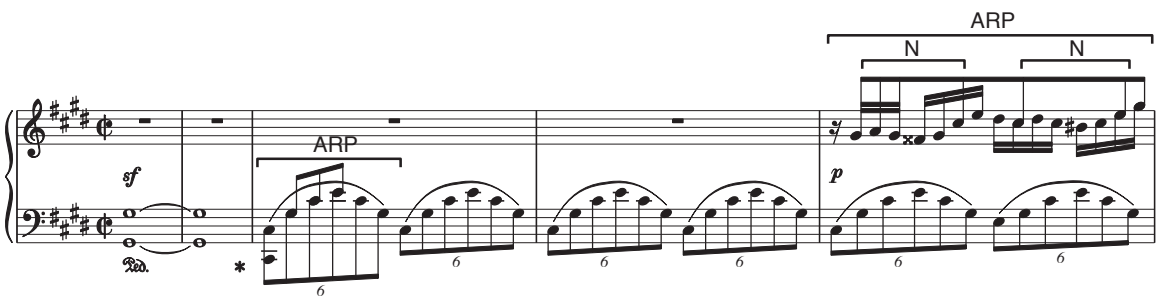
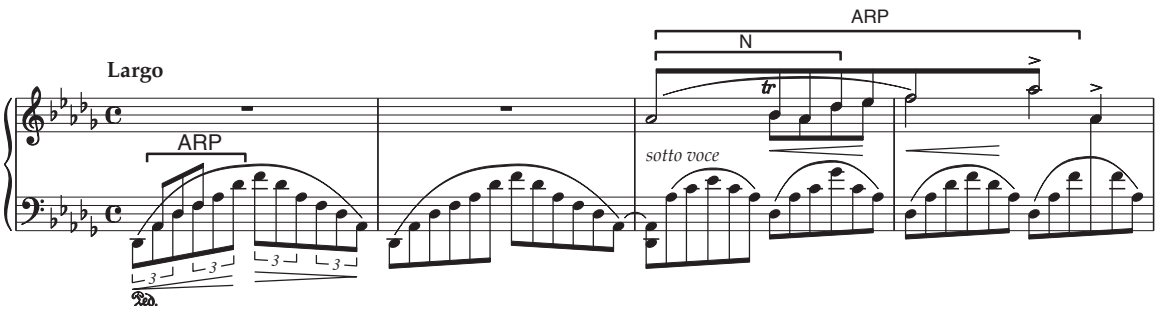
A.



EXAMPLE 2.19 **(continued)**

B.



for the F[5], which, substitutes for the E in this major-mode section). To cement the motivic relationship, the D♭-major tune contains both the upper neighbor (B♭) and even the E♭, which was the repeated accented dissonance in the first theme. We may in turn work backwards from the work's opening right-hand material to the left-hand accompanimental figure, which contains the very pitches and contour that spawn the later themes. Note that Chopin reminds us of the left hand's importance by recycling it as the accompanimental figure in the D♭-major section.

Inter-movement connections were common in the nineteenth century, yet such connections occur earlier in many Classical and even Baroque pieces, including the work of Italian Baroque composer Arcangelo Corelli. The movements within his trio sonatas are often linked by both melodic and rhythmic shapes; see Example 2.20. The Allemande opens with a dotted-note figure that arpeggiates the F-major triad, which is immediately imitated by the bass instruments (Example 2.20A). The second part of the movement

EXAMPLE 2.20 **Corelli, Trio Sonata in F major, op. 2, no. 7**

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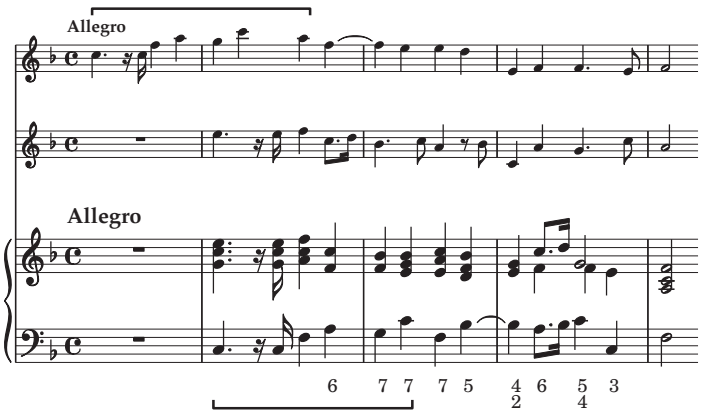
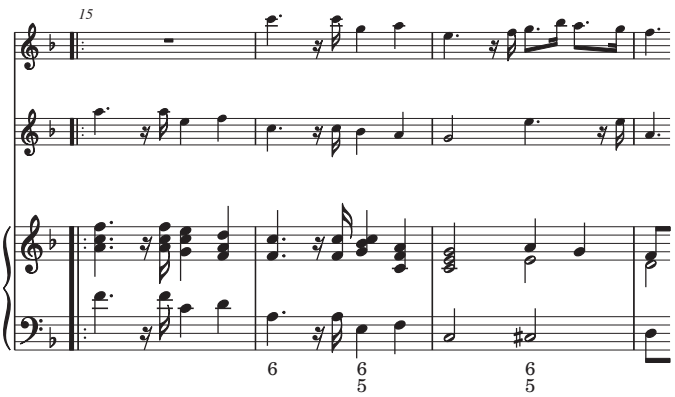
A. Allemande

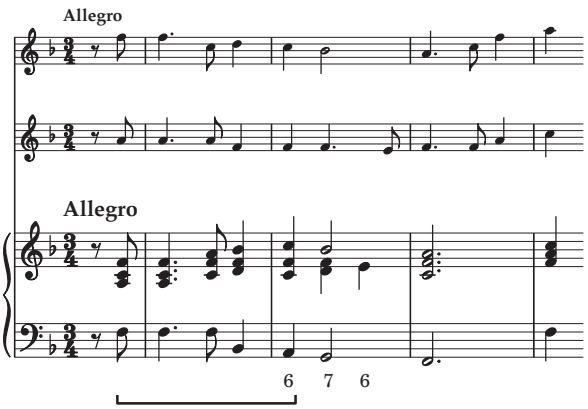


EXAMPLE 2.20 **(continued)**

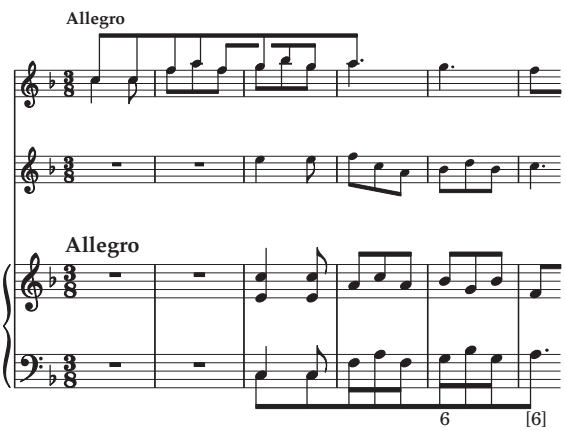
B. Allemande



C. Corrente

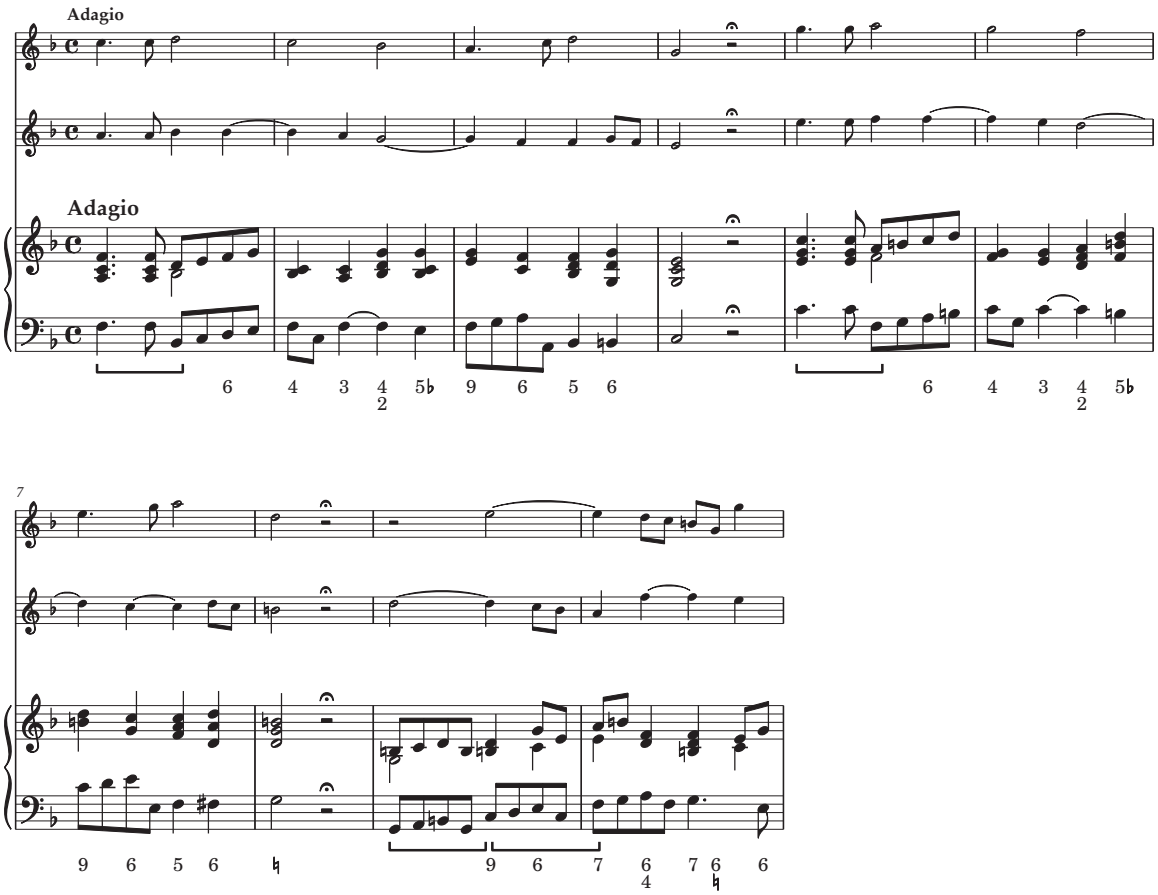


D. Gigue

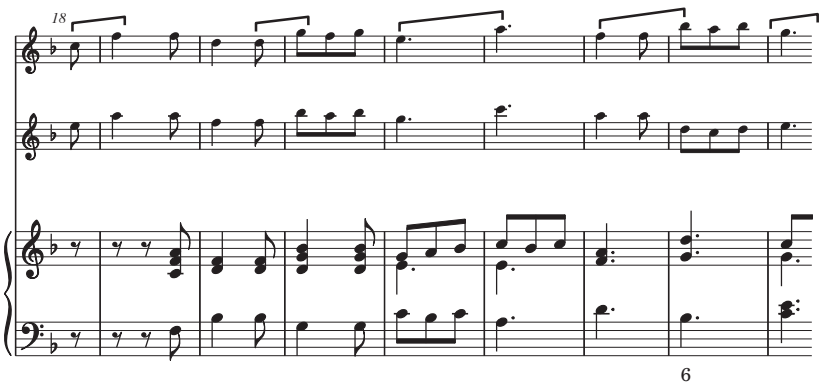


EXAMPLE 2.20 **(continued)**

E. Prelude



F. Gigue



recasts the tune in a modified inversion and places the bass instrument in the role of leader, with the first violin following close behind (Example 2.20B).

The Corrente uses this inverted form of the motive, filling in the leap that would have been from D down to A with steps (Example 2.20C). The Gigue returns to the imitative procedure first heard in the Allemande, in which Corelli restates the original ascending arpeggiated form of the motive (Example 2.20D). The added F in m. 2 and the skip to B♭ rather than C do not compromise hearing a connection between the original motive and the Gigue's restatement.

What remains intact in each movement is the dotted rhythmic figure that accompanies the fifth and fourth leaps. A brief glance at the sonata's opening Prelude reveals an emphasis on these very motives (Example 2.20E). They appear following each dramatic fermata: F–B♭, C–F, G–C. Note that the transposition of these leaps of a fourth and a fifth is by perfect fifths. That there may be a connection between these fourths and their expansion into the initial motive of each of the following movements, we can look at how Corelli develops the melody in the final movement. Beginning in m. 18, and just before the end of the Gigue, the rising perfect intervals occur in sequence: C–F, D–G, E–A, F–B♭, G–C, in effect explicitly announcing that the everyday interval of a perfect fourth/perfect fifth is a generating force in both the melodic and harmonic realms of the sonata.

In order to smooth the connection between contrasting sections of a piece, composers employ a technique referred to as **linkage**, whereby a motivic element is retained in both sections but is necessarily transformed in order to fit into the new musical environment (Example 2.21). Three formal areas are shown in Example A: the end of the tumultuous development section, characterized by sixteenth notes and off-beat *sforzandi* (through m. 132), a retransition whose function is to dissipate the energy of the development and prepare for the return of the opening material (mm. 132–143), and the restatement of the

EXAMPLE 2.21 **Linkage Technique**

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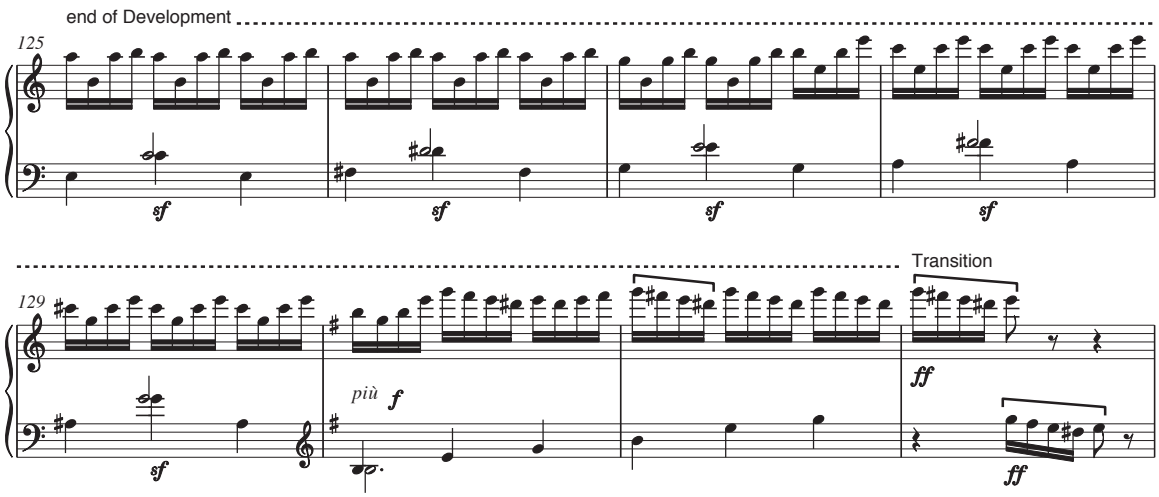
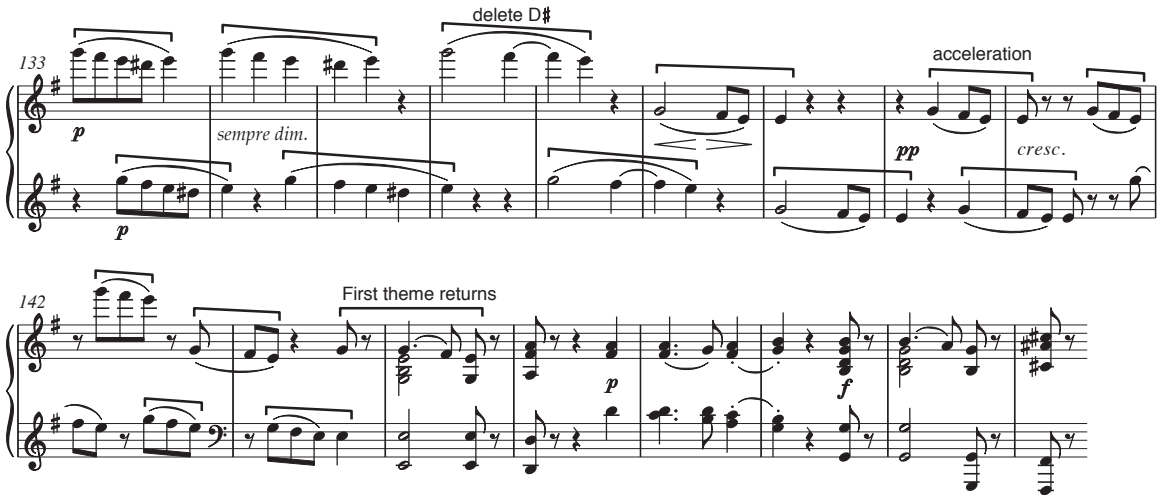
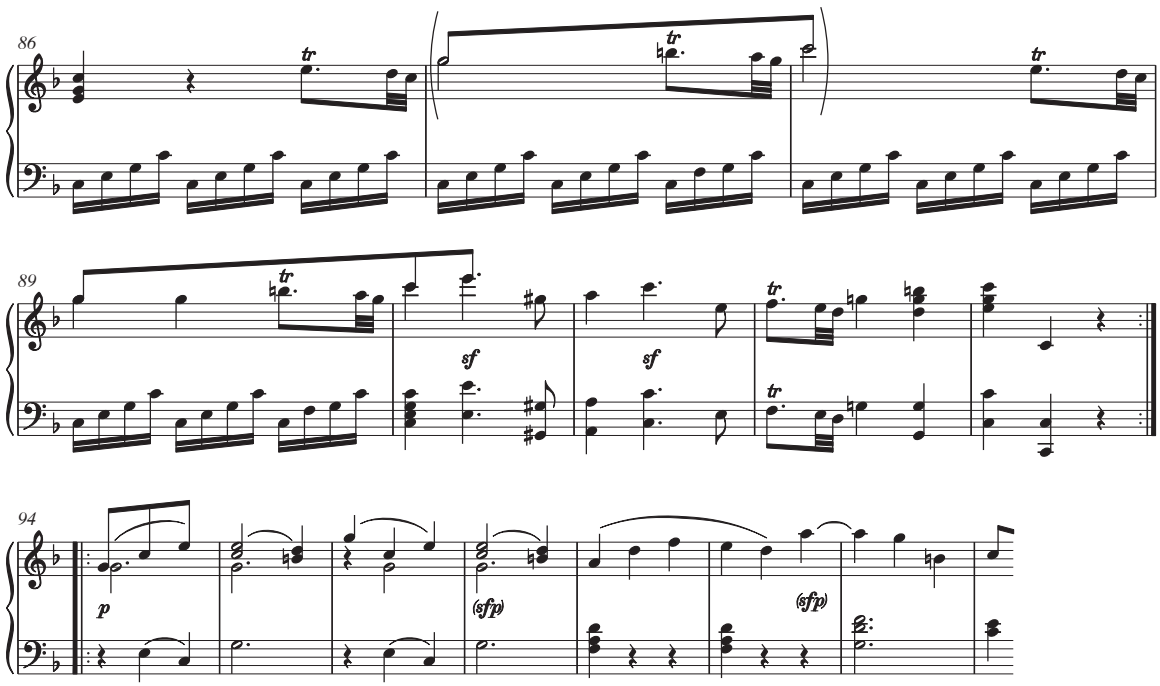
A. Beethoven, Piano Sonata in E minor, op. 90, *Allegro*



EXAMPLE 2.21 **(continued)**



B. Mozart, Piano Sonata in F major, K. 332, *Allegro*



opening material in E minor (mm. 144ff). Notice how Beethoven converts the development's broken-chord figure into a scalar motive (G–F♯–E–D♯) that he repeats in rhythmic augmentation, first with sixteenth notes, then with eighths, then with quarters, and finally with half notes (mm. 132–137), all of which occurs in imitation at the octave, in stretto,

and falling in register. Notice that the lowest note of the motive, D♯, is removed during this process and that the remaining pitches, G–F♯–E, begin to accelerate and regain the higher register and then rush headlong into the restatement of the original motive, which relies on this very third, G–F♯–E.

Mozart's use of linkage in his F-major sonata is a bit more concealed. The rising broken-chord figure that begins the development (G–C–E) has been subtly prepared in the preceding virtuosic cadential section (Example 2.21B).

SINGLE-INTERVAL MOTIVES

The motives we have discussed so far possess distinct melodic and rhythmic profiles. Clear pitch contours supported by characteristic rhythmic settings help us to recognize the many transformations to which they are subjected. However, by the late eighteenth century, composers began to explore the power of a single interval. This type of motive can generate both melodic and harmonic material throughout a piece. When one stops to think about it, a single interval is highly versatile and can be employed in multiple musical environments. Consider the perfect fourth A♭–D♭, which can fit into any number of tonal contexts. At the same time, this perfect fourth is also ubiquitous in tonal music and therefore may not be motivic at all, but just a by-product of melodic and harmonic motions. Composers such as Beethoven were drawn to single-interval motives because they could be used as the impetus to create longer and more involved motives. Indeed, this very perfect fourth is the seed Beethoven uses to generate the theme in the last movement of his Piano Sonata in A♭ (Example 2.22A). He also subjects the motive to various transformations, including inversion (Example 2.22B) and augmentation and diminution, *simultaneously* (Example 2.22C).

EXAMPLE 2.22 **Beethoven, Piano Sonata in A♭ major, op. 110 (fugue theme)**

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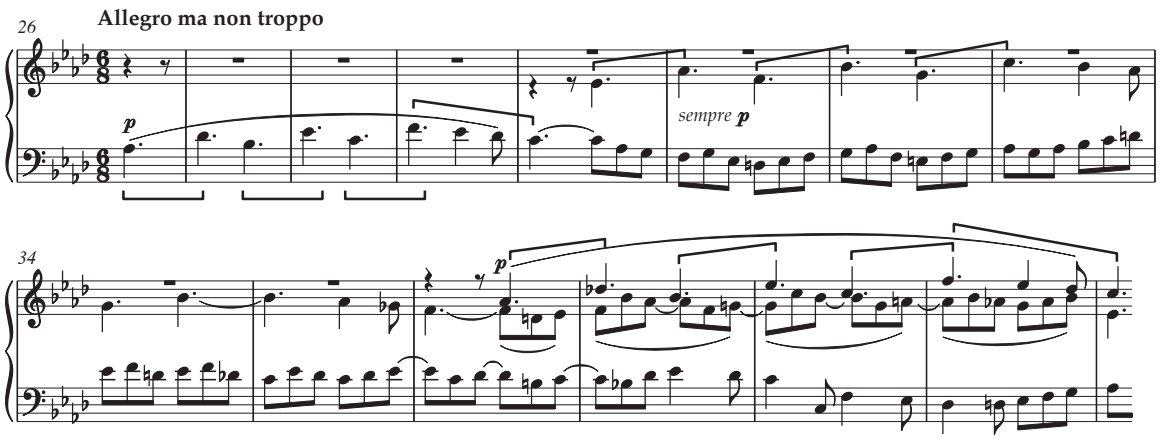
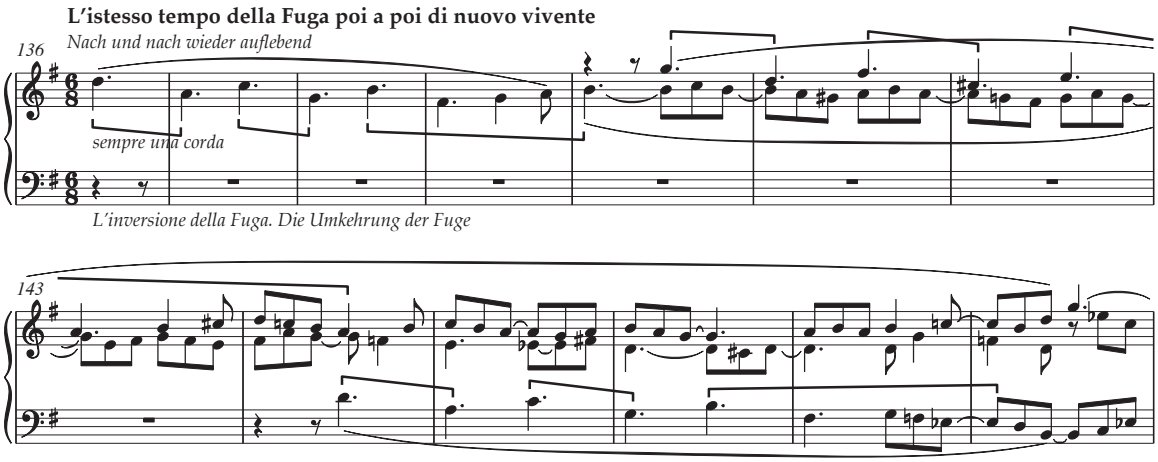
A.

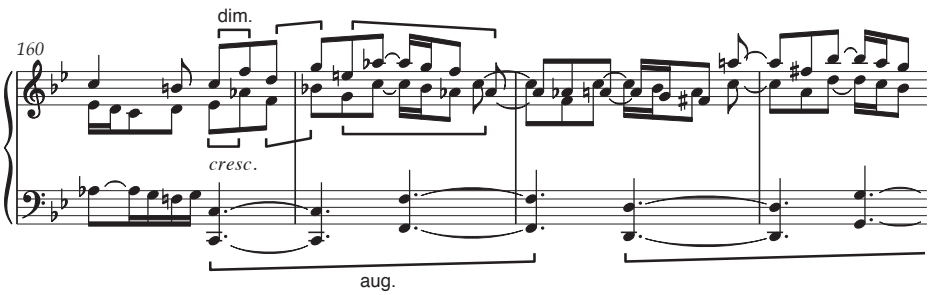


EXAMPLE 2.22 **(continued)**

B.



C.



In order to create a motive composed of only a single interval or a pair of like intervals, composers often combine a more generic interval, such as the third or the fifth, with a more striking and immediately audible interval, such as the half-step neighbor. Example 2.23 presents the opening gestures of several well-known Chopin pieces, all of which depend on the upper-neighbor motive $\hat{5}$–$\hat{6}$–$\hat{5}$.

Finally, composers often combine a single-interval motive, such as the half-step neighbor, with a transformed version of itself, as seen in the Clementi excerpt in Example 2.24. The incomplete rising neighbor E–F ($\hat{7}$–$\hat{1}$) is combined with its inversion: D♭–C ($\hat{6}$–$\hat{5}$). Clementi subjects the motive not only to transposition and inversion, but also to **octave displacement**, in which a portion of the motive is shifted up or down by an octave. This procedure occurs early in the movement and coincides with the movement's first *crescendo*. Notice that the motive is dramatically augmented, occupying a full, rather than a half, measure. The following phrase opens with the motive in imitation, and from here Clementi develops it even further. The relentless motivic saturation, including many transposed versions, culminates in the final gesture of the movement, in which the motive

EXAMPLE 2.23 $\hat{5}$–$\hat{6}$–$\hat{5}$ as Motive

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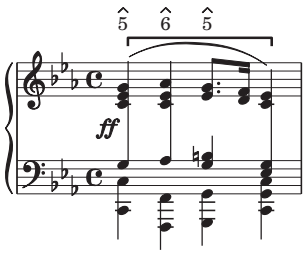
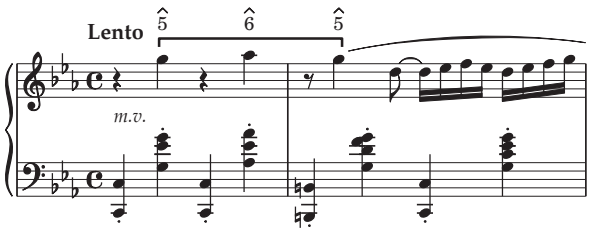
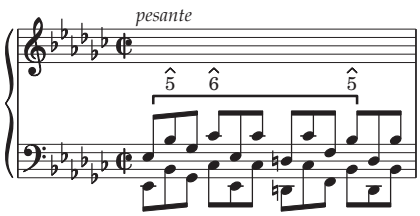
A. Chopin, Prelude in C minor, op. 28



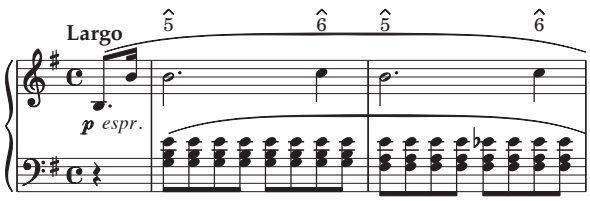
B. Chopin, Nocturne in C minor, op. 48, no. 1



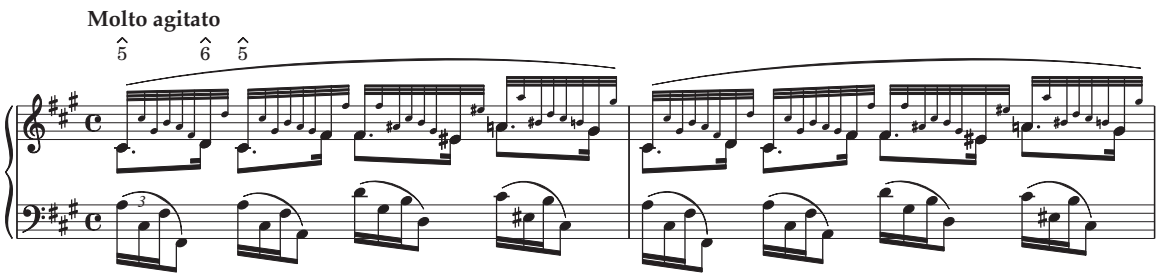
C. Chopin, Prelude in E♭ minor, op. 28



D. Chopin, Prelude in E minor, op. 28



E. Chopin, Prelude in F♯ minor, op. 28



EXAMPLE 2.24 **Clementi, Sonata in F minor, op. 13, no. 6**

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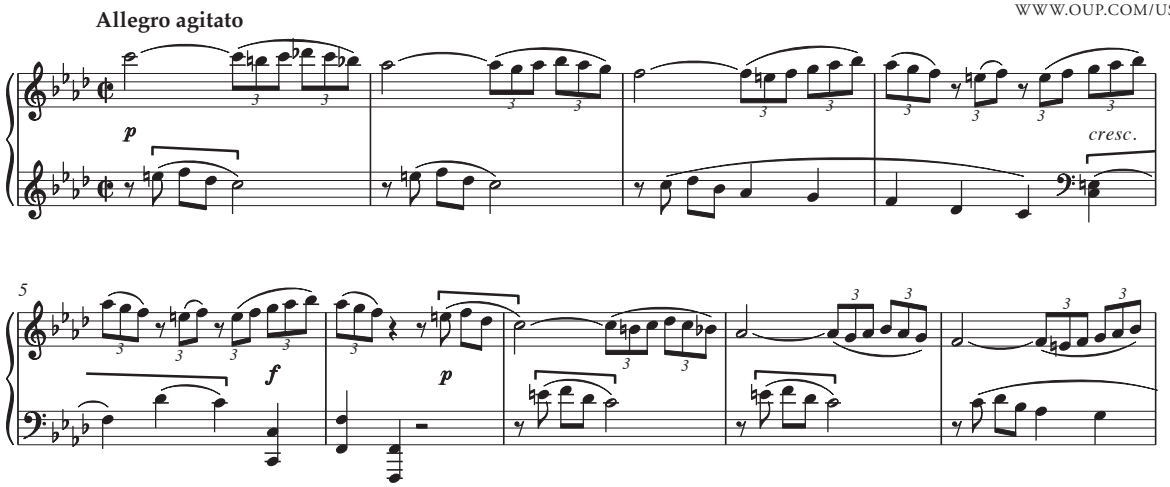

appears at its original pitch level and with its characteristic half-step members tightly juxtaposed. However, its final statement in the piano's lowest register and at *pianissimo* dynamic seems to reflect the motive's utter exhaustion after its nonstop development throughout the movement (Example 2.25).

Octave displacement can transform a single-interval motive to the degree that it becomes unrecognizable. This technique, a favorite of Brahms, can be heard in his Fourth

EXAMPLE 2.25 **Clementi, Sonata in F minor, op. 13, no. 6**

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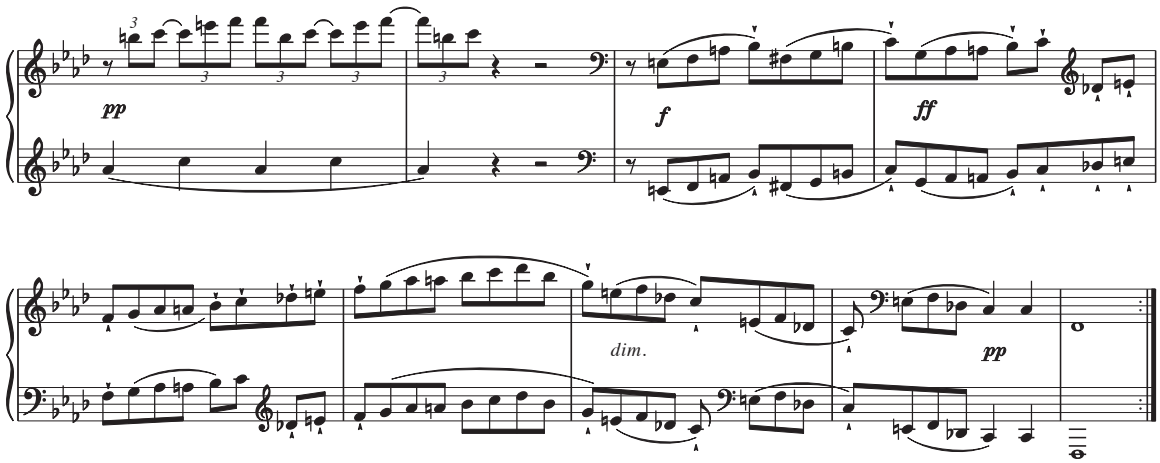

EXAMPLE 2.26 **Brahms, Symphony no. 4, op. 98**

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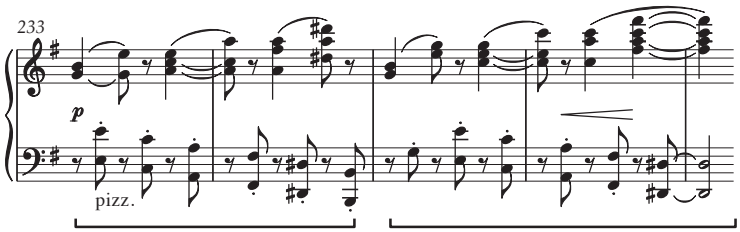

Symphony (Example 2.26). The interval of a falling third is prominent throughout the symphony. And in its closing moments, Brahms summarizes the motive's importance by dramatically stating these thirds in unison and in octaves, one after the other, in the following long series: E–C–A–F♯–D♯–B–G–E–C–A–F♯–D♯.

Notice that the pattern of falling thirds is broken only once, apparently because of range limitations. However, the nearly two-octave leap from the low B to the high G draws attention to this now-compound sixth. If we were to take advantage of the invertibility of sixths and thirds, we can keep this falling-third pattern within a more restricted tessitura. A glance at the melody that opens the symphony's first movement reveals this exact structure. In Example 2.27, after B^5 falls a third to G^5 and E^5, C^6 appears a sixth above, not a third below, E^5. Similarly, A^5, $F♯^5$, and $D♯^5$ fall by thirds from C^6, but B^5 rises a sixth from $D♯^5$. That Brahms subjects his tunes to such manipulation is clear from the following measures, where he changes direction and *ascends* through a series of hidden thirds.

EXAMPLE 2.27 **Brahms, Symphony no. 4, *Allegro non troppo***

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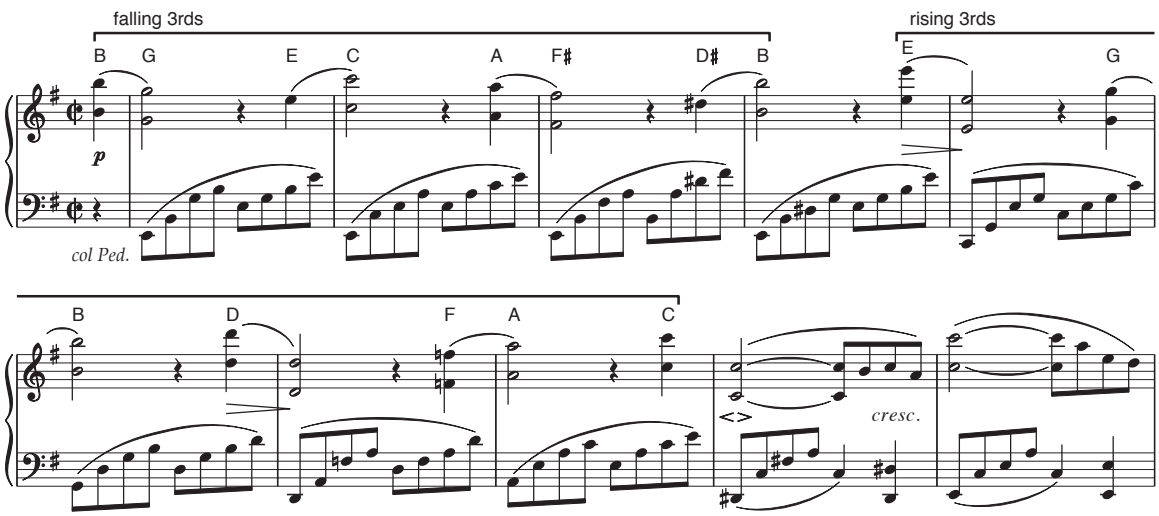

HIDDEN MOTIVIC REPETITIONS

Developmental motives are the musical world's equivalent to the animal world's chameleons; motives are modified in order to fit within their musical environment. As such, they are remarkably powerful compositional tools. One reason that developmental motives are so important and interesting is that they are able to exist at various levels of musical structure (Example 2.28). Haydn begins his piece with the upper-neighbor figure D–E♭–D. The motive is innocuous, given its brevity (one beat) and that the E♭ (a dissonant fourth) is metrically unstressed. However, already in the next measure, the neighbor motive is expanded: E♭ is four times longer, occupying an entire beat, and now it is harmonically supported by the E♭ harmony (IV). Motives often gain structural importance as a piece unfolds. Recognition of such processes allows the performer to follow what amounts to a motivic path through a composition.

EXAMPLE 2.28 **Haydn, Divertimento, "St. Anthony Chorale"**

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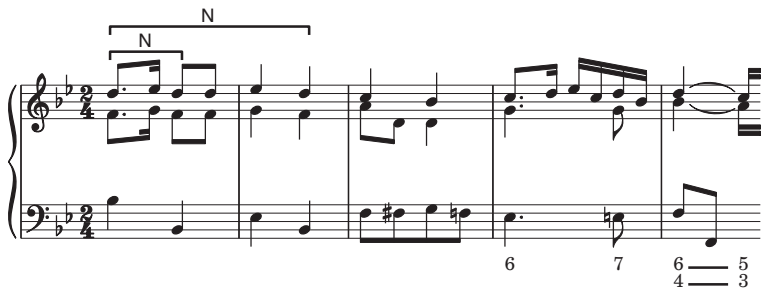

Sometimes composers state motives at various levels simultaneously. Beethoven begins one of his late bagatelles with what sounds like an accompanimental figure in the right hand: a gently rocking figure in parallel thirds supported by a pedal on G (Example 2.29). The left-hand gesture that enters two beats later (above the right hand, in the high register) also sounds more accompanimental than thematic; as a triplet-sixteenth-note filigree, it is more commentary on the rocking figure than it is theme. Examination of the

EXAMPLE 2.29 **Beethoven, Bagatelle, op. 126**

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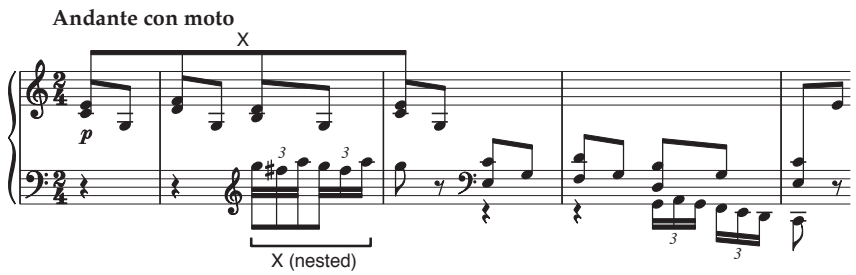

contours of both figures is revealing: The right-hand eighth-note figure outlines a double neighbor (E–F–D–E), and so does the triplet-sixteenth figure, transformed by inversion and transposition: G–F♯–A–G. Thus, in spite of their contrasting surface presentations, both figures are intimately related and, as such, should be given motivic, rather than accompanimental, status. This interconnection between large-scale and small-scale motives is called a **motivic nesting**.

Depth and Surface: Motivic Parallelism

We have seen the importance of motives and how through transformation they can operate in any number of musical contexts. The most interesting transformations allow motives to migrate to different sections of a piece or to different movements and even to be hidden. We now explore the migration of motives to the harmonic domain, seeing how they control the composer's choice of chords. That is, we will see that the outer-voice counterpoint can project, at deep structural levels, the melodic figurations we hear at the musical surface. Listen to Example 2.30, an excerpt by Mozart, and consider the given roman numeral analysis. Note that there is no real harmonic progression in these four measures; rather, weak dominant harmonies expand the tonic.

EXAMPLE 2.30 **Mozart, Piano Fantasy in D minor, K. 397, *Adagio***

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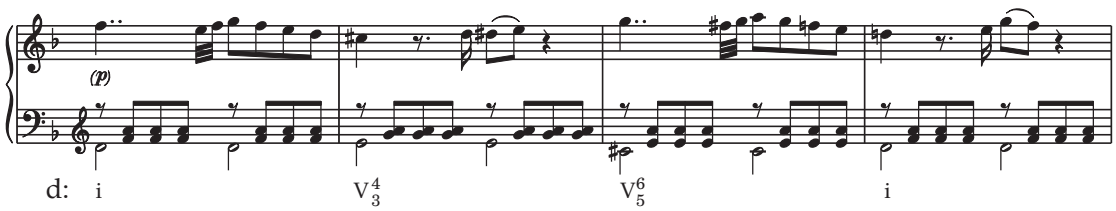
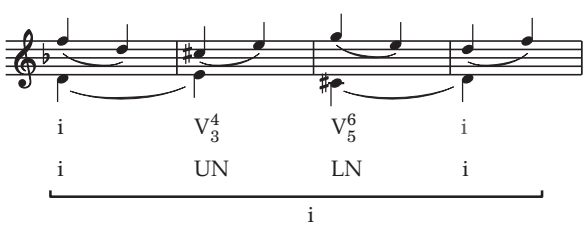


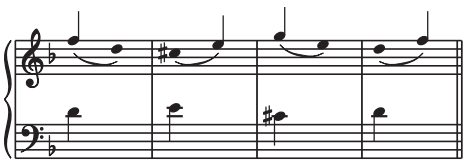
Tonic harmony is expanded by an upper and a lower neighbor in the bass, harmonized by V^4_3 and V^6_5 (Example 2.31). This static double-neighbor expansion of tonic is aligned with an equally static melodic framework that begins and ends on F ($\hat{3}$). The controlling upper-voice F is prolonged by the same double-neighbor melodic figure, mirroring the bass in inversion.

EXAMPLE 2.31 **Mozart (reduction no. 1)**



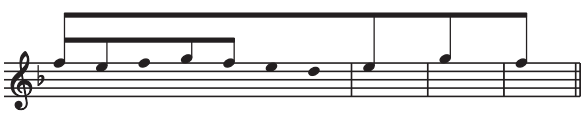
Example 2.32 summarizes the outer-voice counterpoint; stemmed notes represent structural notes.

EXAMPLE 2.32 **Mozart (reduction no. 2)**



An association links the surface tune to the underlying counterpoint. Example 2.33 shows how Mozart uses the same double-neighbor figure over two different time spans, both as a tiny figure in the melody (m. 1, beats 1–3) and as a large gesture controlling the melodic path of the first phrase (mm. 1–4). The result is an audible connection between the surface and the underlying counterpoint, made real through the ubiquitous presence of the motive. Consequently, the initial melodic gesture becomes a shaping force not only over the entire melody but also in the bass, where it influences the harmony. The transformed repetitions of a motive and its harmonization at different structural levels is called **motivic parallelism**. Given that Mozart's initial motive occurs within the longer, more structural, version of the motive, this motivic parallelism is also nested.

EXAMPLE 2.33 **Mozart, Motivic Parallelism**



Let's examine how motive works in conjunction with harmony, tonic expansions, counterpoint, and motivic parallelism in the opening of a late piano sonata by Beethoven (Example 2.34). Unlike Mozart's Fantasy, the first phrase of Beethoven's sonata contains a harmonic progression that unfolds in the standard phrase model (T–PD–D–T) as well as the expected tonic expansion. Beethoven uses inverted V^7 chords to expand the tonic, effectively surrounding the upcoming $\hat{3}$ in the bass of m. 3 from below and above. Examination of the pitch material and its interaction with the meter reveals yet another layer of structure. The underlying bass line is $A^{\flat 2}$–$B^{\flat 2}$–C^3 ($\hat{1}$–$\hat{2}$–$\hat{3}$) thus prolonging the tonic by movement from I to I^6.

EXAMPLE 2.34 Beethoven, Piano Sonata in A♭ major, op. 110, *Moderato cantabile molto espressivo*

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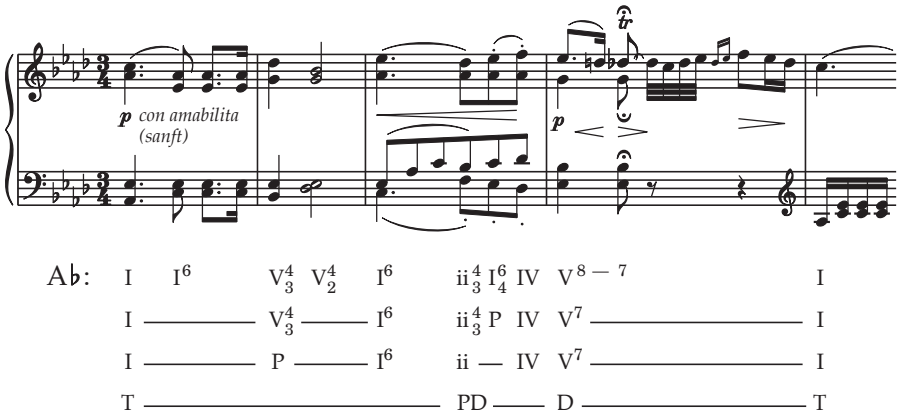
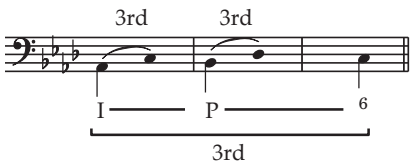


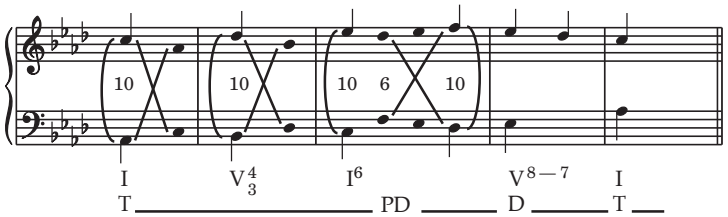
The motive in this passage appears to be the third, given the large-scale third in mm. 1–3 and the smaller third in the opening interval in the bass (A♭2 to C3). Example 2.35 summarizes the bass motion for this passage.

EXAMPLE 2.35 Beethoven, Motivic Thirds



The two-voice contrapuntal scheme resulting from soprano and bass supports the assertion that the main motive is the third, for, at the surface, the melody in m. 1 mirrors the bass in contrary motion with the voice exchange of A♭ and C (Example 2.36). The pattern is continued in m. 2 with another voice exchange, this time involving D♭ and B♭. In m. 3

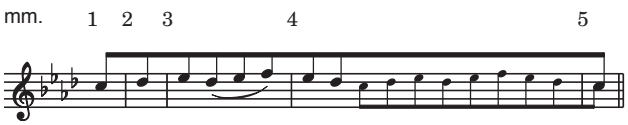
EXAMPLE 2.36 Beethoven, Motivic Voice Exchanges



the voice-exchange pattern stops and E♭5 is extended with a double neighbor. The soprano plays C5–D♭5–E♭5 while the bass moves in parallel tenths over the first three measures. A final tenth (and another voice exchange) occurs at the pre-dominant, followed by a rapid descent that creates the balanced arch of the soprano line, C5–D♭5–E♭5–F5–E♭5–D♭5–C5.

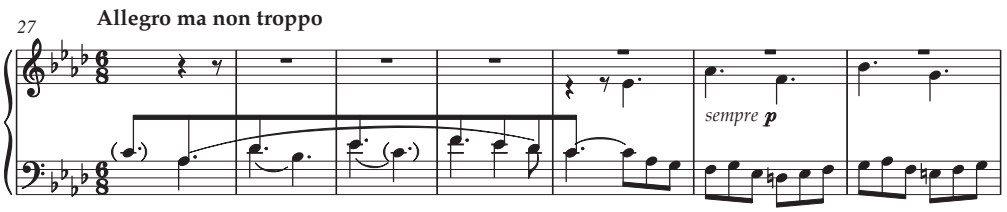
We have skirted over the short cadenza-like flourish in m. 4 that links the dominant back to the tonic. Indeed, pianists are often baffled by this curious figure. But if we review the structural contents of the soprano line in Example 2.36, we see a note-for-note correspondence between the structural soprano notes in the opening four measures and the thirty-second-note flourish (Example 2.37).

EXAMPLE 2.37 **Beethoven, Motivic Parallelism**



Indeed, it seems as if Beethoven has provided the listener with a summary of exactly what took place in the first four measures, much in the same way that Mozart gave the listener an introduction to what was to follow in his Fantasy. Finally, lest the reader think that Beethoven limits the use of his motive to this one movement, let us return to Example 2.22 (reproduced here as Example 2.38), which presents the theme to the last movement. Comparing both themes based on their rhythms and metrical placement suggests that they are highly contrasting: The first movement is "all about" thirds and their transposition up seconds, while the last movement projects rising perfect fourths. However, comparing only their pitch content, we see a note-for-note correspondence between the two themes. The last movement's theme, then, can be considered a recomposition of the first movement's. Beethoven has omitted the initial C, beginning the last movement's theme on A♭, which allows the unarticulated perfect fourths of the first movement's theme to emerge as the controlling interval. To cinch the connection between movements, both the high point of the first movement's theme, the F, and its stepwise return to C, recur in the last movement.

EXAMPLE 2.38 **Beethoven, Inter-Movement Parallelism**



Clearly, analysis can reveal important musical correspondences that will help performers gain insight into a work's inner logic and structure. If a brief investigation yields such important findings, imagine what truths you'll discover in music through a lifetime of careful investigation.

WORKBOOK 1
Assignments
App. 2.1–2.7

EXERCISE INTERLUDE

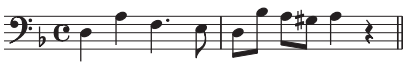
WRITING

2.1

Transform the given motives as required.

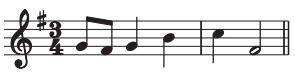
A. D-minor example:

1. Transpose up a minor third (tonal transposition).
2. Invert (begin on D).
3. Retrograde.
4. Transpose down a minor second plus augmentation at 2:1 (real transposition).
5. Embellish using neighbor figures.
6. Embellish the motive to at least twice its length through fragmentation.



B. G-major example:

1. Invert (begin on G).
2. Sequence down by step at least twice; cadence on Î.
2. Add a one-measure interpolation.
4. Invert; then transpose down a major third (real transposition).
5. Retrograde plus diminution by 50 percent; then sequence the result up by step two times.



2.2 Prose Writing

Write a one- to two-page essay in which you define *motive* in your own words. Support your ideas with examples from the repertoire for your instrument.

TERMS AND CONCEPTS

- motivic processes
  - motivic nesting
  - motivic saturation
- motivic types
  - hidden motivic repetitions
  - inter-section and inter-movement types
  - motive versus figure
  - motivic parallelism
  - strict, modified, developmental
  - tonal versus real transposition
- motivic transformations
  - augmentation versus diminution
  - change of interval, change of meter
  - embellishment
  - fragmentation
  - imitation
  - interpolation
  - inversion
  - octave displacement
  - reharmonization
  - retrograde
  - sequence
  - stretto
  - transposition (real and tonal)