

Tonal Structure

All musical elements considered thus far—melody, bass line and harmonic structure, and linear motions—are essential considerations of Schenkerian analysis. As a first step, it is beneficial to focus on a single element, such as melodic structure, but it is crucial to remember that these aspects are not independent but are dynamically interrelated. In analysis, all facets of the harmonic (vertical) and contrapuntal (horizontal) dimensions should be examined together.

In this chapter we explore how these dimensions work interactively to form tonal structure in its broadest sense. We also introduce graphic symbols, which are used to illustrate compositional techniques in a structural analysis. Schenker's system of graphic notation includes various symbols, such as slurs and those used in rhythmic notation; these acquire new meanings in graphs, as you have seen in some of the previous examples.

You may also notice that many of the analyses in this book do not, for instance, indicate aspects of rhythm and dynamics. A Schenkerian graph illustrates (for the most part) the interrelationships among harmony and counterpoint over various structural levels of a composition. In the Appendix we present an *Introduction to Graphic Notation*, which we urge you to refer to as you read this and subsequent chapters. For now we present a brief description of some of the most commonly used symbols.

NOTATIONAL SYMBOLS¹

1. *Unstemmed filled noteheads* indicate notes that form part of the immediate musical context, but are not part of the larger framework.

2. *Stems* added to black noteheads designate a broader structural significance. The relative length of the stem may further distinguish various levels of structure. For instance, noteheads with long stems belong together and form part of a higher level of structure than noteheads with shorter stems.
3. *Open noteheads* are normally used to indicate those tones that are on the highest level of the structure.
4. *Parentheses* around a note indicate a tone that is implied by a specific context, but is not actually present. Occasionally parentheses may be used to isolate a sounding tone or series of tones that are functionally independent from the surrounding context.
5. *Beams* and *slurs* group related tones, such as arpeggiations, linear progressions, and neighboring motions, and show unified spans on all levels of structure.
6. *Broken slurs (or ties)* indicate the retention of a single pitch over a broader span, usually after the intervention of other tones. *Broken beams* are similarly used by some analysts.
7. *Arrowheads* are sometimes added to slurs or lines indicating the direction of a motion.
8. *Roman numerals* denote primary structural harmonies.

Some of these symbols appear in Example 5.1b, which depicts the voice-leading structure of almost two identical phrases at the beginning of a theme used by Beethoven for a series of variations. The example illustrates common symbols used in graphic analyses:

1. The first bass note is written as a half note to indicate that the influence of tonic harmony extends throughout bars 1–2.
2. The initial tonic of the second phrase relates to the V^7-I that defines the conclusion. The use of downward stems for the chords of the T–Int–D–T framework show this relationship; observe also the use of slurs, which indicate the associations among these tones.
3. In the upper voices, upward stems normally indicate top-voice tones, while downward stems denote tones of inner voices (sometimes upward stems indicate inner-voice tones that function locally in a “temporary” top voice). This notation is analogous to the notation for four-part writing, but can represent two polyphonic interwoven voices.
4. *Unstemmed notes* have several meanings. They indicate melodic tones not part of the underlying harmony, such as the dissonant passing tone f^2 in bar 3, or inner-voice tones of the underlying chord, such as the a^2 in bar 1.
5. *Broken ties* indicate tones (with the same function) that recur after intervening notes, such as c^2 in the anacrusis and bar 1. A *diagonal line* visually realigns notes that belong together (at the same level) in the imaginary continuo, but occur “out of phase” at the surface of the music. In the example, c^2 belongs over F, the structural tonic of the phrase.

EXAMPLE 5.1:

- (a) Beethoven, Seven Variations on a Theme by P. Winter, WoO 75, Theme, bars 1–8;
- (b) analytical interpretation

(a) **Theme**
Allegretto

(b)

4-prg. 5-prg.

I — V I — II⁶ — V⁷ — I
T D Int D T

Before leaving this passage, we offer some observations about its tonal structure. The second phrase (bars 5–8) begins as the first, but concludes with a perfect authentic cadence in bar 8. Such a grouping of phrases is called an *antecedent/consequent* construction. In this case the upper voice of the consequent phrase completes the descent left incomplete at the half cadence in bar 4. Together these paired phrases form a complete musical segment, or *period*.

Notice also that the top-voice tone G in bar 7 is supported by the II⁶ intermediate harmony, not by the dominant as it was in the previous phrase. In Chapter 2 we observed that in two-part, first species counterpoint, the measure

EXAMPLE 5.2:

Combinations of $\hat{2}$ and $\hat{7}$ at cadences

The musical notation shows a sequence of chords and scale degrees. Above the staff, scale degrees are indicated: $\hat{5}$, $\hat{4}$, $\hat{3}$, $\hat{2}$, $(\hat{2})$, and $\hat{1}$. A slur connects the $\hat{2}$ and $(\hat{2})$ degrees, with a $\hat{7}$ degree written below the slur. Below the staff, the corresponding chords are labeled: I (T), II⁶ (Int), V (D), and I (T). The chords are connected by horizontal lines, indicating their progression.

before the final tonic contains both scale degrees $\hat{2}$ and $\hat{7}$. Because of their step-wise relationship to the tonic, these are the tones with the greatest melodic tendency to move to and therefore establish the tonic.² In free composition, $\hat{2}$ and $\hat{7}$ are often combined into a characteristic harmonic idiom. Scale degree $\hat{2}$ belongs to the intermediate supertonic harmonies: II, II⁶, II₅⁶; both scale degrees $\hat{2}$ and $\hat{7}$ belong to the dominant and dominant seventh chords. Hence the harmonic progression from an intermediate II to a V provided composers with the opportunity to present both leading tones at the cadence. You can see from the reduction in Example 5.1b that the succession $\hat{2}$ - $\hat{7}$ represents motion into an inner voice, like the similar motion in bar 4. The motion to $\hat{7}$ is thus a brief detour; we say that the leading tone momentarily “substitutes” for scale degree $\hat{2}$.

Example 5.2, a chordal representation of the consequent phrase (a good example of an imaginary continuo), shows the structural prominence and aural retention of G; we place it in parentheses and connect it with a slur to the G that actually appears over the II⁶. This procedure, where the leading tone extends the influence and thus implies the continued presence of scale degree $\hat{2}$, can be described as the *implied retention of a tone*. We will learn about various ways in which tones may be implied by a particular context. One usual condition for reading implied tones is that they must belong (explicitly or implicitly) to the underlying harmony (to the imaginary continuo). The replacement of $\hat{2}$ by $\hat{7}$ at a structural cadence (or the combination of both in succession), as also occurs in “Greensleeves” (Example 2.6), is one of the most frequently encountered idioms in the tonal literature.³

TONAL STRUCTURE AND THE URSATZ

One of Schenker’s most far-reaching discoveries was the realization that the types of harmonic progression and voice-leading patterns of a single phrase or section of a musical work can also serve as the basis for longer sections or,

indeed, whole compositions. Our next example is a passage from the Trio of Mozart's *Eine Kleine Nachtmusik* (Example 5.3). We use this phrase to introduce some of the essential features of the *Ursatz*, or *fundamental structure*.

We begin our analysis with the imaginary continuo (Example 5.4a). As we discussed in Chapter 3, the realization is a simple chordal reduction of the musical surface; the motion of the upper voices (the performer's right hand) should be compact and not involve large leaps. In this case we begin with the bass, which is simpler than the more ornate upper voice. The structural progression includes I, V⁷, and II⁶. Notice also that we regard A as the main upper-voice tone, although D and F[♯] are certainly logical choices for the D-major tonic of the imaginary continuo. Because the tonic triad involves three tones, the analysis may proceed from three possible points of departure; one path, however, usually serves as the

EXAMPLE 5.3:

Mozart, Trio from *Eine Kleine Nachtmusik*, K. 525, bars 1–8

Trio

The musical score consists of four staves. The top staff is for Violin I, marked 'sotto voce'. The second staff is for Violin II, marked 'p'. The third staff is for Viola, marked 'p'. The bottom staff is for Bass, marked 'p'. The key signature is one sharp (F#) and the time signature is 3/4. The score is divided into two systems. The first system contains bars 1-4, and the second system contains bars 5-8. A circled number '5' is placed above the first staff of the second system. The music features a mix of eighth and sixteenth notes, with some slurs and ties. The piece concludes with a double bar line and repeat dots.

EXAMPLE 5.4:

Mozart, Trio from *Eine Kleine Nachtmusik*, K. 525: (a) imaginary continuo; (b–c) analytical interpretations

(a)

I V⁷ I VI II⁶ V⁷ I

(b)

I		V ⁷		I	(VI)	II ⁶	V ⁷	I	
I	—————						II ⁶	V ⁷	I
T						Int	D	T	

(c)

best higher-ranking line—that which serves as an overarching melodic framework for a passage, section, or piece. In Mozart’s Trio, the line from A appears to account best for the descending, melodic framework of the phrase.

It is often a good strategy—as we have done here—to begin by drawing a few conclusions about the broader structural “markers” that stand out at first glance, especially in the first and concluding portions of a passage. But it is also important to bear in mind that initial impressions and assumptions may need to be reevaluated as analysis proceeds. One should not be reluctant to abandon first impressions if further investigation reveals other conclusions and ideas that better describe the passage or sections.

In Example 5.4b we show—in graphic form—the phrase in greater detail, and in particular how the upper voice traverses the space from $\hat{5}$ to $\hat{1}$ as the bass

progression moves from tonic toward the perfect authentic cadence in bars 7–8. (For more on the meaning of the symbols, consult the Appendix on graphic notation). In the bass, open noteheads, slurs, and partial beams indicate two interlocking motions: $I-V^7-I$ and $I-II^6-V^7-I$. From a broader perspective, shown by the second strand of roman numerals, the initial tonic is prolonged until the II^6 appears in the T–Int–D–T framework of the phrase.

Thus far we have focused on the bass; the next step examines the upper voice to discover if the subsidiary motions and detours that lead this voice from $\hat{5}$, at the beginning of the phrase, to $\hat{1}$, at its conclusion, corroborate our reading of the bass structure.

Our imaginary continuo realization suggests the prominence of A (over tonic harmony) in bars 1–2, which is established with an initial third-progression from F^\sharp . Example 5.4b shows the elaboration and prolongation of A before it moves to G, the next upper-voice tone of the imaginary continuo. The path of the upper voice (at the surface) actually extends beyond A to high D before the line reverses direction and reestablishes A at the conclusion of bar 2. We interpret the D (as well as the initial F^\sharp) as belonging to the inner voices of the imaginary continuo, indicated by the arrow in Example 5.4b. The technique of placing an inner-voice tone above a main tone of the upper voice is called *superposition*.⁴

The longer-range influence of A in bars 1–2 exemplifies what Schenker called the “mental retention” of a tone; in this case, a “covering line” from the inner voice of the polyphonic texture prolongs and retains the structural top-voice note. While the subsidiary motion is active, the main tone is still conceptually present, but at a *deeper level*—one that is temporarily static, literally without activity and motion. To use Schenker’s words, the A on the downbeat of bar 1 “combines within itself a mental retention, . . . a motionless state and an actual motion.”⁵ In our example, the actual motion results from the passing tones that fill in the fourth produced by the superposition.

When the harmony changes to V^7 , G becomes the main upper-voice tone and is decorated in a manner similar to the elaboration of A in bar 1. Notice that Mozart introduces disjunct motion into the line with the downward leap from high B to E over the sustained V^7 (bars 3–4). In general, a disjunct and wide-ranging upper voice usually signals inner-voice motions that elaborate the structural melody. In this case, the decorating B leads to E, which belongs to an “alto” voice of the texture (compare Examples 5.4a and b). Nevertheless, G is retained at a deeper level, because V^7 is still active as the harmonic support. As V^7 moves to I, G resolves to F^\sharp , the next tone in the melodic framework.

You should now be able to interpret the remainder of the analysis on your own. In Chapter 6 we define subsidiary melodic motions in greater detail; for now, bear in mind that lines associated with inner-voice tones often move above higher-ranking structural tones. Example 5.4 further indicates that Mozart’s lower-level lines are not merely decorative; they are *organically* related to each other and to the underlying melodic framework. Our analysis uses brackets to portray repeated motions through the interval of a third, which are referred to as *motivic parallelisms*.⁶ We will see in subsequent analyses how motivic repetitions unify the rhapsodic—even improvisatory—character of the musical surface.

This passage also illustrates a principle that suggests a rule of thumb regarding the *intermediate harmonies* of structural harmonic progressions: when they prepare higher-ranking dominants, intermediate harmonies often support correspondingly high-ranking tones of the upper voice. In this case, the II^6 supports scale degree $\hat{2}$, which belongs also to V and leads to $\hat{1}$ at the conclusion of the phrase.

Example 5.5a shows less detail than Example 5.4b; only the superposition and third-motives are indicated relative to the higher-ranking tones of the melodic framework. In preparing graphic representations, analysts must decide which motions to retain in depicting various levels of tonal structure. We retain the third-motives because we hear them as motivic gestures that unify the upper voice and distinguish this passage from other passages incorporating a descending line from $\hat{5}$.

We may now begin to form some general theoretical observations about tonal structure. We have considered Mozart's phrase as if it were a complete piece for ease of illustration and discussion, not because it could actually stand alone as an

EXAMPLE 5.5:

Mozart, Trio from *Eine Kleine Nachtmusik*, K. 525, bars 1–8: (a) and (b) analytical reductions

(a)

(b)

autonomous composition. Nevertheless the tonally complete, nonmodulating phrase displays in microcosm many of the same characteristics that shape much longer spans of music, including complete pieces. We have chosen the phrase as our point of departure because a phrase that ends with a perfect authentic cadence is often the smallest complete tonal structure found in compositions.

Considered collectively, the illustrations in Examples 5.4 and 5.5 constitute a multilevel *voice-leading graph* (*Urfinie-Tafel*). Such depictions illustrate in graphic form the voice leading of the harmonic and contrapuntal structure of a passage or piece. And by showing various stages of reduction, in which the detours, prolongations, and tones of figuration are gradually removed, we arrive at a representation of the most fundamental structure of the phrase—the *Ursatz* (Example 5.5b).

As Schenker's ideas developed, he realized that such a fundamental structure underlies phrases, sections, and entire compositions. As a theoretical construct, the *Ursatz* symbolizes the most essential melodic and harmonic components of a tonal composition and consequently has far-reaching ramifications for the ways in which musicians understand the general principles of tonality. We shall, therefore, examine the characteristics of the *Ursatz* in some detail.

The Bass Arpeggiation (*Bassbrechung*)

Example 5.6 shows schematically two of the *Ursatz* patterns that arise in tonal composition. Notice that the bass motions are the same for both patterns. As we noted in Chapter 3, the primary harmonic progression in tonal music is I–V–I; the bass “linearizes” the tonic triad through a disjunct arpeggiation, by moving from the root to the upper fifth and back again. Schenker referred to this motion as the *bass arpeggiation* (*Bassbrechung*). In *Free Composition* Schenker initially represents the *Ursatz* without an intermediate harmony, although in later examples he shows how they may function in relation to I and V. The occurrence of certain intermediate harmonies—as in the case of IV moving to V—introduces

EXAMPLE 5.6:

The *Ursatz* forms

The image shows two musical staves illustrating the *Ursatz* forms. The first staff shows a bass line with notes I, V, I and a treble line with notes 3, 2, 1. The second staff shows a bass line with notes I, V, I and a treble line with notes 5, 4, 3, 2, 1. Both forms include the word 'from' and 'P' (Piano) markings.

stepwise motion in the disjunct bass arpeggiation (I–V–I). In fact, the introduction of melodic motion *intensifies* the motion toward the dominant. Ultimately, however, Schenker regarded intermediate harmonies as subsidiary to the tonic and dominant scale steps.

The Fundamental Line (Urlinie)

Schenker used the term *Urlinie* (*fundamental line*) to refer to the descending, stepwise upper voice of the *Ursatz*. If we focus our attention momentarily on the first pattern, the descent from $\hat{3}$, we can sharpen our understanding of what the *Urlinie* signifies. The motion from $\hat{3}$ to $\hat{1}$ linearizes (“horizontalizes”) the lower interval of the tonic triad: compare the *Ursatz* pattern to its vertical, chordal representation. Scale degree $\hat{2}$, then, is a passing tone, made *consonant* by the dominant tone in the bass. The *Urlinie* thus abstractly represents the *melodic* dimension of tonal music; it is a linear manifestation of tonic harmony, a linear progression in which the intervals of the tonic triad are filled in by passing tones. Indeed, the *Urlinie* is the highest-level linear progression of an entire piece or movement.

The second part of Example 5.6 shows an *Urlinie* that begins on the fifth of tonic harmony. This *Urlinie* traverses the entire span of the tonic triad: the tones $\hat{5}$ – $\hat{3}$ – $\hat{1}$, representing an arpeggiation of tonic harmony, are filled in with the passing tones $\hat{4}$ and $\hat{2}$. The “ $\hat{5}$ -line” can be a more problematic musical construct than a “ $\hat{3}$ -line,” at least theoretically, because of complications in the support of one or more of its tones.⁷

It is important at this point to underscore a characteristic of the *Urlinie*: the fundamental line *descends* from the initial tone to the final $\hat{1}$. The reason for this aspect of Schenker’s theory is that he considered the first tone of the *Urlinie*—the *primary tone*—as an “image” or representation of the overtone in an overtone series of which the tonic note is the fundamental.⁸ He therefore considered the descending motion to be the most direct path for this “overtone” to return to its fundamental, a direction that also corresponds to a release of musical tension (Schenker made a distinction between ascending and descending motion in his writings on counterpoint.) In Western music since the Middle Ages, and in the music of many other cultures as well, falling melodic motion has been characteristic of cadences and endings. This may reflect an innate sense of a correspondence of musical motion with physical motion, and with the force of gravity (and the essential fact that things on earth fall *down*, not up). Thus we can see why it is theoretically feasible for an *Urlinie* to begin from an upper tone of the tonic triad, *but not from $\hat{1}$* (which is conceptually a point of rest).⁹

The fundamental structure therefore consists of two components, the fundamental line and the bass arpeggiation. The fundamental line is a *stepwise*, horizontal expression of tonic harmony: in Mozart’s Trio, the tones $\hat{5}$ – $\hat{3}$ – $\hat{1}$ of the tonic triad are filled in by passing tones ($\hat{4}$ and $\hat{2}$). The only other theoretical possibilities for the fundamental line are $\hat{3}$ – $\hat{2}$ – $\hat{1}$ ($\hat{3}$ – $\hat{1}$ filled in by one passing tone) and the much less frequently encountered $\hat{8}$ – $\hat{7}$ – $\hat{6}$ – $\hat{5}$ – $\hat{4}$ – $\hat{3}$ – $\hat{2}$ – $\hat{1}$ ($\hat{8}$ – $\hat{5}$ – $\hat{3}$ – $\hat{1}$

filled in by four passing tones). The bass arpeggiation also expresses the tonic triad in the horizontal dimension, but through a *disjunct* arpeggiation from the root to the upper fifth (dominant) and back again.

STRUCTURAL LEVELS

We have seen that not every association in tonal music occurs between adjacent pitches. Schenker came to this realization gradually, as he discovered ways in which the principles of melodic fluency and harmonic organization operate beneath the surface of musical compositions. In the 1920s, when his theoretical ideas were developing into their final form, he eventually recognized that tonal compositions consist of a continuum of interrelated structural levels: *each is based on and is related to the others through similar harmonic and contrapuntal procedures*. The theory of structural levels has revolutionized the way many theorists and musicians understand music, and it is perhaps Schenker's greatest discovery.

The final level we examined in the previous section was the *Ursatz*, which emerged in our analysis of the phrase from Mozart's Trio (Example 5.5b). Examples 5.4 and 5.5 illustrate the three "realms" of structural levels commonly associated with Schenker's theory of tonal structure. If we regard Mozart's phrase as a complete piece (for purposes of explanation), the graph of Example 5.4b, which shows most of the notes in the original music and some of the simpler nonadjacent tonal associations, depicts the *surface* and *foreground* levels. The graph of Example 5.5b, however, shows only the fundamental line and bass arpeggiation (with an intermediate harmony). We have already identified this representation as the *Ursatz*; but when considered the final step in a series of successive reductions, it is also referred to as the *background* level. In the middle is, quite literally, the *middleground* level (Example 5.5a), which conveys motivic features and the broader harmonic and contrapuntal motions that reside between the foreground and background.

Bear in mind that we are not suggesting that every musical composition consists of three clearly delineated structural levels. Schenker explicitly states in *Free Composition* that "it is impossible to generalize regarding the number of structural levels."¹⁰ Rather, it is more appropriate to speak of three interrelated *types* of level (the foreground and middleground in particular are pluralistic in nature), which are distinguished by the amount of detail they contain. The more detail, the lower the level, and the "closer" its relationship to the musical surface. In this book we use the adjectives "lower" and "higher" to distinguish relatively among structural levels. A lower level is one closer to the surface and foreground than a higher level, which is closer to the background. These words capture the visual impression of many of Schenker's published examples.¹¹

Schenker, like most theorists today, used the terms *fundamental structure*, *fundamental line*, and *bass arpeggiation* in the most general sense to describe the basic structure of an *entire piece*. In this chapter we departed from this usage for clarity of discussion. As you may recall, the later excerpts are brief but self-contained tonal structures, and we used the term *Urfinie*, for instance, to refer to

the main upper-voice line of the passage. One often finds in tonal music patterns that replicate or “parallel” in miniature the patterns that serve as fundamental structures (*Ursätze*), for entire pieces; some theorists refer to such patterns as “*Ursatz* parallelisms.”¹² In Chapters 6 and 7, we will for convenience retain this informal usage of these terms (in Chapter 7 we examine *Ursatz* parallelisms in considerable detail). In the complete analyses of Part II (Chapters 8–12), we will follow Schenker’s usage more closely and will provide additional conventions (in the text and in the examples) to distinguish the *Ursatz* and *Urfinie* of a complete piece from versions at more immediate structural levels.

THE PRINCIPLE OF INTERRUPTION

Example 5.7 presents the score of bars 1–16 from the slow movement of Mozart’s Piano Sonata, K. 545; Example 5.8 presents two levels of the antecedent phrase in bars 1–8. Study the graphs in Example 5.8 and you will notice obvious differences between this phrase and the beginning of the Mozart Trio shown in Example 5.3. At the same time, you will discover that the two phrases are similar in important respects. It bears repeating that Schenker’s approach reveals general principles underlying many compositions as well as individual features that characterize each piece as a unique work of art. Because Example 5.8 is similar to Examples 5.4b and 5.5a, we refrain from extensive commentary and present a list to highlight certain aspects of this phrase.

1. Notice the opening gesture, which establishes $\hat{5}$ as the first tone—the primary tone—of the fundamental line; a similar beginning characterizes the Trio.
2. As in the Trio, covering lines reside above the higher-ranking tones of the *Urfinie*, resulting from passing tones in combination with superpositions (indicated by the arrows in Example 5.8).
3. The c^2 in bar 5 in one sense appears to move, as a lower neighbor, back to d^2 ($\hat{5}$) in bar 6. Although this interpretation makes sense from a surface-level perspective, it is also true that c^2 moves down, as the seventh of V_3^4 , to an implied inner voice b^1 of the imaginary continuo. As a result, the c^2 embodies the qualities of both a passing tone and a neighboring tone.
4. In the sonata phrase, e^2 plays a significant role in the covering lines (the melodic activity) that elaborate the fundamental line. Example 5.8b shows a deeper level of structure, revealing that E is an upper neighbor to D (scale degree $\hat{5}$). Notice that E functions both as a *complete* neighbor (bar 3) and an *incomplete* neighbor (bar 7) at this level. The incomplete neighbor $\hat{6}$ leading to $\hat{4}$ is a common feature of the tonal system (as is $\hat{4}$ moving to $\hat{2}$ in a fundamental line beginning on $\hat{3}$).

A comparison of Examples 5.5 and 5.8b reveals the structural difference between the phrases. In the Trio (Example 5.5), Mozart concludes with a perfect

EXAMPLE 5.7:

Mozart, Piano Sonata, K. 545, II, bars 1–16

Andante

4

7

10

13

16

EXAMPLE 5.8:

Mozart, Piano Sonata, K. 545, II, bars 1–8: (a) and (b) analytical representations

The image shows two analytical representations of the first eight bars of Mozart's Piano Sonata, K. 545, II. Both versions (a) and (b) are written in treble and bass clefs with a key signature of one sharp (F#). Above the staff, scale degrees are indicated with hats (^) and numbers. Circled numbers 4 and 8 are placed above the staff in both versions. In (a), the upper voice has notes G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. In (b), the upper voice has notes G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The bass line in both versions consists of chords: I (G2), T (B1), I (G2), T (B1), I (G2), IV (B2), Int (D3), V (G2), D (B1). In (a), the bass line has a 6 in bar 7 and a 6 in bar 8. In (b), the bass line has a 6 in bar 8. In (a), the upper voice has a N (neighbor) in bar 2 and a P (passing) in bar 4. In (b), the upper voice has a N (neighbor) in bar 2 and a P (passing) in bar 4. In (a), the upper voice has an IN (interrupted) in bar 8. In (b), the upper voice has an IN (interrupted) in bar 8. In (a), the upper voice has a V (V4=3) in bar 8. In (b), the upper voice has a V (V) in bar 8. In (a), the upper voice has a D (D) in bar 8. In (b), the upper voice has a D (D) in bar 8.

authentic cadence, which means that both the fundamental line and bass arpeggiation completely run their course (they lead to $\hat{1}$ over I at a local level). In bar 8 of the piano sonata, however, Mozart “breaks off” the structural motions at $\hat{2}$ over V (Example 5.8b). In effect, the paths of the fundamental line and bass arpeggiation are *interrupted* before closure is achieved. Schenker would say that the initial succession in the upper voice “is the first attempt at the complete fundamental line.”

After the half cadence in bar 8, the consequent phrase begins like the antecedent; this time, however, the fundamental line and bass arpeggiation achieve closure ($\hat{1}$ over I) at the conclusion of the phrase. Example 5.9 shows the final part of the phrase (bars 14–16), a few details of which warrant comment. Notice the recurrence of $\hat{6}$ as an incomplete neighbor to $\hat{5}$. The upper neighbor to the primary tone is one of the few decorations that apply to the fundamental line at the *first level of the middleground*. In fact, $\hat{6}$ and $\hat{4}$ often occur together; in some cases, scale degree $\hat{6}$ may actually *substitute* for $\hat{4}$ in a descent. Finally, notice in the

EXAMPLE 5.9:

Mozart, Piano Sonata, K. 545, II, bars 14–16: (a) and (b) analytical representations

(a)

(b)

score that the surface line pushes upward to b^2 in bar 14, a tone that decorates the highpoint a^2 from bar 7 of the first phrase (these tones are not shown in the reductions). We might say that Mozart—at a lower level—is striving upward against the downward “pull” of the fundamental line (Example 5.9b).

Now compare Examples 5.8b and 5.9b and you will discover that two structural motions (corresponding to the antecedent and consequent phrases) articulate Mozart’s period structure: $\hat{5}-\hat{4}-\hat{3}-\hat{2}||\hat{5}-\hat{4}-\hat{3}-\hat{2}-\hat{1}$. We refer to the segments as the two “branches” of an interruption (the term is not Schenker’s, though it is a useful one). Example 5.10 shows the two branches in the most concise form possible.

The common interrupted *Urlinie* patterns are $\hat{3}-\hat{2}||\hat{3}-\hat{2}-\hat{1}$ and $\hat{5}-\hat{4}-\hat{3}-\hat{2}||\hat{5}-\hat{4}-\hat{3}-\hat{2}-\hat{1}$. Bear in mind that $\hat{2}$ over V—at the conclusion of the first branch—does not lead to $\hat{3}$ or $\hat{5}$ over I at the beginning of the second branch; in other

EXAMPLE 5.10:

The two branches of an interrupted *Ursatz* from $\hat{5}$

The musical notation shows two staves. The upper staff contains two melodic lines. The first line starts with a treble clef and a key signature of one sharp (F#). It contains two phrases: the first phrase has notes $\hat{5}$, $\hat{4}$, $\hat{3}$, $\hat{2}$ over chords I and V; the second phrase has notes $\hat{5}$, $\hat{4}$, $\hat{3}$, $\hat{2}$, $\hat{1}$ over chords I, V, and I. A double bar line separates the two phrases. The lower staff contains two bass lines, each starting with a bass clef and a key signature of one sharp. The first bass line has notes I and V; the second bass line has notes I, V, and I. Below the staves, the labels "first branch" and "second branch" are centered under their respective phrases.

words, in a line from $\hat{3}$, the first $\hat{2}$ is not a lower neighbor to the $\hat{3}$ of the second branch. The structural motions cease at $\hat{2}$ over V; at the surface and foreground, however, a “link” often connects the two branches (as in bar 8 of Example 5.7). We will see in subsequent examples how the interruption principle shapes various structural levels, with far-reaching ramifications for the development of form and content.

MORE ON THE *URSATZ*

Previously we introduced one of Schenker’s central concepts: the *Ursatz* (fundamental structure), which comprises the *Urlinie* (fundamental line) and the *Bassbrechung* (bass arpeggiation). We now investigate more thoroughly the meaning of these interrelated formations. Example 5.11 shows some of the basic ways in which the bass arpeggiation is elaborated.¹³

The patterns in *a* and *b* show perhaps the most common intermediate harmonies: II, IV, and II⁶. Notice both the melodic and harmonic relationships embodied in both of these diagrams. In the case of *a*, the supertonic is melodically related to the tonic (the bass moves by step). It is also harmonically related to the forthcoming dominant: the bass moves up a fourth (or down a fifth) to V, simulating the harmonic leap from V to I. In *b* the situation is reversed, with IV or II⁶ related to V melodically as well as harmonically. All of these harmonies, of course, intensify the motion from I to V.

The pattern in *c* is more neutral in character because of the common tones shared by I–III–V. Notice also that the bass on its way to V *completely arpeggiates* the tonic triad: $\hat{1}$ – $\hat{3}$ – $\hat{5}$. This progression is more goal oriented if elaborated by one or two additional tones and chords (see Figures 14.2a, 14.3a, and 14.4a in *Free Composition*). A motion to III is more characteristic of the minor than of the major mode because the major mediant chord (relative major) offers an effective contrast to the minor tonic.

EXAMPLE 5.11:

Elaborations of the bass arpeggiation

(a) (b) (c)

(d) (e) (f)

I II V I I IV II⁶ V I I III I⁶ V I

I IV II⁶ V I I VI V I I IV II⁶ V I

The patterns we have discussed thus far all involve ascending motion from I to V. For Schenker, the basic position of V is *above* I, because it occurs in the overtone series; the most important elaborations of I–V–I result from partially filling in the space between I and the upper V. Progressions moving from the tonic *down* to the dominant are variants of the rising form; three possibilities are illustrated in the final three diagrams of Example 5.11. Schenker, however, considered the position of V above I as more fundamental.¹⁴

Now that we have examined these essential bass patterns, we turn our attention to the structural upper voice. Schenker considered the *Urfinie* a linear expression of tonic harmony (Example 5.12). The fundamental line originates in the *vertical* triad, which is arpeggiated and then filled in with one or more passing tones (an idiom from second species counterpoint) to become the descending stepwise component of the *Ursatz*. (In principle, *all* of the tones between the first and last are passing tones.)

Example 5.12 shows an *Urfinie* that begins with $\hat{3}$, the third of tonic harmony. Relative to the root of tonic harmony, scale degree $\hat{2}$ is a dissonant passing tone. The bass expresses tonic harmony through arpeggiation, but it does so through a motion that remains *disjunct*. The resulting bass arpeggiation through V provides consonant support for the passing $\hat{2}$.

The transformation of a dissonant passing tone into a consonant passing tone (through harmonic support) holds far-reaching ramifications in Schenker's theory. From strict counterpoint we learn that a dissonant passing tone connects two consonances and consequently depends on a consonant framework for its meaning; the dissonant passing tone by itself cannot lead to further musical development (that is, to further elaboration). In free composition, however, which integrates counterpoint and harmony over various structural levels, the consonant passing tone can become the point of departure for linear progressions and

EXAMPLE 5.12:

Conceptual origin of the *Ursatz*

The image shows a musical staff with two systems. The first system has notes with scale degrees $\hat{3}$, $\hat{2}$, and $\hat{1}$ above them. The second system has notes with scale degrees $\hat{3}$, $\hat{2}$, and $\hat{1}$ above them. Between the systems, the text "becomes P" is written under the first system and "and P consonant" is written under the second system. Below the second system, the letters "I V I" are written under the notes.

even subordinate key areas. Scale degree $\hat{2}$ over V, for instance, often serves to initiate a subordinate key area (an *Ursatz parallelism*), which expands the main tonic of a composition.

Example 5.13 illustrates the *Ursatz* formation with $\hat{5}$ as the primary tone.¹⁵ This pattern is more problematic than an *Ursatz* beginning on $\hat{3}$, at least from a theoretical perspective, because of scale degree $\hat{4}$, which is dissonant against the fundamental of the tonic.¹⁶ Schenker states that “in this context the first part of the fundamental line $\hat{5}-\hat{4}-\hat{3}$ has more the effect of a transiently filled space of a third . . . [which] creates a certain void, or unsupported stretch, at the very outset of the fundamental line of a fifth.”¹⁷ Even with the support of the dominant, scale degree $\hat{4}$ remains dissonant (a seventh above the bass). As Carl Schachter has explained, however, “The consonant support of each note of the fundamental line is not an overriding issue for Schenker, though it is one that he takes into account in his interpretations of the middleground.”¹⁸

Example 5.14 illustrates in schematic fashion some of the ways in which the segment $\hat{5}-\hat{4}-\hat{3}$ can be worked out. A very common possibility, shown in *a*, occurs

EXAMPLE 5.13:

Ursatz formation from $\hat{5}$

The image shows a musical staff with two systems. The first system has notes with scale degrees $\hat{5}$, $\hat{3}$, and $\hat{1}$ above them. The second system has notes with scale degrees $\hat{5}$, $\hat{4}$, $\hat{3}$, $\hat{2}$, and $\hat{1}$ above them. Between the systems, the text "becomes arp." is written under the first system and "and P P" is written under the second system. Below the second system, the letters "I 7 I V I" are written under the notes.

EXAMPLE 5.14:

Ursatz formations from $\hat{5}$

when scale degree $\hat{4}$ is provided the consonant support of the octave, a contrapuntally stable interval (compare to V^7) that yields the intermediate IV harmony of the bass arpeggiation (a II^6 is also possible here). You will notice in our first scenario that when $\hat{4}$ is given consonant support, another unsupported stretch emerges: $\hat{4}-\hat{3}-\hat{2}$. The interesting aspect of this situation is that $\hat{3}$, normally the consonant third of tonic harmony, becomes a dissonant passing tone against the fundamental of the IV chord. In composition, it is quite possible to find such fleeting (and even dissonant) support for $\hat{3}$; as Carl Schachter has also stated, at lower levels “the notes of the fundamental line will possibly evolve in different ways. Some may be richly elaborated, others less richly, still others not at all. Yet each is an essential element in the structure.”¹⁹ More typically found, however, is the tonal pattern shown in Example 5.14b. Scale degree $\hat{3}$ remains a passing tone, but in this case it enters as a *consonant* sixth above the root of dominant harmony. As you can see from the figured-bass symbols, this coincidence of the structural upper and lower voices yields the familiar cadential $\hat{6}_4$, which very often supports structural $\hat{3}$ in a $\hat{5}$ -line. Example 5.14c shows another possibility for the support of $\hat{4}$. In this case, the outer voices form a consonant tenth, which results in an intermediate II harmony; again, $\hat{3}$ is supported by the cadential $\hat{6}_4$ that signals the beginning of dominant harmony.

In this brief discussion we have not attempted to list every possibility. You can see, however, that the “void” of the unsupported stretch can be reduced through various types of consonant support for $\hat{4}$. Bear in mind, however, that *either* $\hat{4}$ or $\hat{3}$ will almost always be accompanied by a dissonant chord, or by no chord at all (that is, it will remain a passing tone in the foreground).²⁰

Schenker’s theory suggests one more possible *Ursatz* formation, one that begins from $\hat{8}$ (remember that the tonic triad from which the *Ursatz* arises can be expressed with the top note in the position of the third, fifth, or octave). Example 5.15, which presents two diagrams from *Free Composition*, shows this possibility.²¹ From the first diagram you can begin to see why an $\hat{8}$ -line can be a problematic structure: there are many unsupported tones, even more than in a $\hat{5}$ -line. Although consonant support for all *Ursatz* tones is not an

EXAMPLE 5.15:*Ursatz* formations from $\hat{8}$

(a)

(b)

overriding issue in the analysis of structure, the situation is different in this more extensive line. The issue is more pressing given the number of unsupported tones, especially *consecutive* unsupported tones. And notice that the second tone of the line is the leading tone, which in the major mode has a marked tendency to move in an ascending, rather than a descending, direction.

The second part of the example shows that two bass arpeggiations may be necessary to support this structural line. Because of the considerable practical considerations involved, $\hat{8}$ -lines are very rare in composition, although they do appear to occur more frequently at structural levels below the background. This aspect of Schenker's theory, while theoretically consistent with its basic principles, is still being considered by those involved with his work.

Exercises

Pieces for Analysis.

- a. Bach, *Notebook for Anna Magdalena Bach* (1725) BWV Anh. 114, IV, "Menuet" in G major, bars 9–16
- b. Mozart, *Don Giovanni*, Duet, "La ci darem la mano," bars 5–8
- c. Brahms, *Variations on a Theme by Haydn* (two-piano reduction), bars 19–23
- d. Mozart, *Six Variations on Salve tu, Domine*, K. 398, Theme, bars 1–12
- e. Schumann, *Album for the Young*, "Melodie," bars 17–20
- f. Brahms, *Intermezzo*, Op. 76, No. 7, bars 1–8
- g. Beethoven, *Piano Sonata*, Op. 7, II, bars 1–8
- h. Schumann, *Album for the Young*, "Armes Waisenkind," bars 4–8