

**Bach's Works for Solo
Violin:
Style, Structure,
Performance**

Joel Lester

Oxford University Press

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STYLE, STRUCTURE, PERFORMANCE

Joel Lester

New York Oxford

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1999

*To Emile and Abby
who have inherited the past
and are creating the future*

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Preface

When I was learning violin, I was secretly jealous of my fellow music students who studied piano. As they learned the canonic works in their repertoire—the Beethoven piano sonatas, say, or Bach’s *Well-Tempered Clavier*—they could consult numerous performance and analytic guides to those compositions: Donald Francis Tovey’s or Hugo Riemann’s extended commentaries on the Beethoven piano sonatas and on Bach’s *Well-Tempered*, Heinrich Schenker’s commentaries on Beethoven’s late piano sonatas, and the extended annotations on these works in the editions of Hans von Bülow, Tovey, and others.¹ No similar standard reference works existed for violinists’ canonical works—not even for Bach’s unaccompanied sonatas and partitas, Beethoven’s violin sonatas, or the major concertos. This volume begins to fill that gap by detailing many aspects of Bach’s six unaccompanied violin works, concentrating on the Sonata in G Minor.

Focusing on this sonata and its companions inspires thoughts on many larger historical, analytical, critical, stylistic, and practical issues. And so this book, while keeping an eye throughout on the solo-violin works, touches on quite a few other pieces by Bach and others and treats analytical, stylistic, and performance issues that span the past three centuries. As a result, this book is in part a performance guide for violinists, in part an analytic study, in part a rumination on aspects of Bach’s style, and in part an investigation of notions of musical form and continuity.

There is evidence that Bach’s solo-violin works have been a regular part of violin pedagogy since the eighteenth century. Certainly they have been mainstays of the violin concert repertoire since the mid-nineteenth century, when Ferdinand David and the young Joseph Joachim began performing them in public. Their long performance history, evidenced in recordings as well as in editions—and even through added accompaniments and arrangements by distinguished musicians like Felix Mendelssohn, Robert Schumann, Johannes Brahms, and Fritz Kreisler—gives us the opportunity to study the ways in which notions of Baroque style have evolved.

The very notion of style is closely connected to the ways in which this sonata and Bach's works in general are effectively analyzed. Many of the analytical methods that we in the late twentieth century spontaneously apply to music were developed well after the solo sonatas were composed, and many of these analytical tools were conceptualized in response to music composed more than a generation after Bach died. In particular, modern notions of musical form and phrasing emerged in response to music of the late eighteenth and early nineteenth centuries—to codify the practices of Haydn, Mozart, and Beethoven. There is a less-than-perfect fit when these tools are applied to Bach's music. Indeed, a large part of the reason that early-eighteenth-century theoretical ideas—ideas that Bach knew—eventually dropped out of circulation and were replaced by later notions is that the earlier concepts no longer applied to later evolving musical styles, not that they were inapplicable to Baroque music.

As a result, one central theme of this book concerns the types of analytical notions that are best applied to Bach's music. Whenever possible, analytical tools are drawn from eighteenth-century notions. This decision does not presuppose that eighteenth-century theoretical ideas are necessarily better than later developments. Quite the contrary, it often takes time for musicians to figure out the best analytical methods for a given repertoire. My motivation here arises from the desire to employ analytical tools that were developed for the repertoire under study, not for later repertoires.

Nonetheless, there is indeed an anachronism in using early-eighteenth-century theory to analyze an early-eighteenth-century masterwork: the notion of a "masterwork" is a creation of a later age—the very age in which our modern analytical tools were developed and in which the practice of music analysis began to flourish. Asking questions about why a piece of music has remained immortal would probably not have occurred to early-eighteenth-century musicians. The few published analyses that still exist from that era were done to demonstrate how some piece demonstrates this or that musical technique (as in Jean-Philippe Rameau's two different analyses of a monologue from Jean-Baptiste Lully's opera *Armide*, published in 1727 and 1754, or in Johann Mattheson's 1739 application of rhetorical labels to an aria by Benedetto Marcello) or to demonstrate how to apply musical knowledge to an actual piece (as in Johann Heinichen's 1728 dissection of an entire cantata by Alessandro Scarlatti to teach a keyboardist how to decide which chords to play with the unfigured thoroughbass part).² The more modern sort of analysis that dissects a piece to see how and why it works so well did not really develop until the early nineteenth century, when the pieces being inspected were recent music.³ To a potential charge of such anachronism I can only plead that we in the late twentieth century are interested in these sorts of issues about pieces. And rather than try to apply more modern analytical techniques that were not designed specifically for a Baroque repertoire, it seems to me more appropriate to employ ideas contemporaneous to the pieces.

A fundamental premise of this book is that a single creative genius lies behind all of Bach's music in all genres. Surprisingly, this premise—which should seem self-evident—is not widely apparent in the literature on Bach. Discussions of his pieces with two repeated sections (such as dance movements) apply the principles of binary forms akin to those of later eras; discussions of his ritornello movements (as in concerto movements and many arias) apply different principles; and discussions of his fugues draw upon still different principles, as do discussions of his preludes, his toccatas, his chorale preludes, and so on for each of his genres. Many of his chorales have been the pedagogical basis of tonal harmony for generations, yet others of his chorale-based works are “modal,” seeming to use entirely different principles. It is as if Bach were an eighteenth-century Arnold Schoenberg in his American period, who decided for each piece whether it was to be tonal or 12-tone—only with Bach the options for creating musical sense seem to have been endless.

I do not believe that Bach viewed his own compositional activity in that manner. To me, his work exhibits a remarkable unity of creative genius—a stylistic uniformity that transcends the differences between all the genres in which he composed. I hear similar approaches to large-scale structure, motivic work, texture and textural growth, harmony and counterpoint, and so forth in his fugues and his concertos, his binary forms and his chorale preludes, his sonatas and his suites, and his solo-violin works and his keyboard, orchestral, or vocal music. In short, Bach's music in all these genres sounds like it is by Bach. This book attempts to pin down some of the features that contribute to this sense of Bach's style.

Even though the focus is on the solo-violin works, violinists will not find here suggestions for fingerings and bowing or even for tempos. Surely enough such suggestions already exist in the scores of violinist-edited versions of the sonatas and partitas, in the endless stream of recordings, and in Richard R. Efrati's *Treatise on the Execution and Interpretation of the Sonatas and Partitas for Solo Violin and the Suites for Solo Cello by Johann Sebastian Bach*.⁴ Here, however, they will find discussions of Bach's notation; of phrasings, forms, motives, and genres in his music; and of the way we often simply assume that Bach's music is akin to much later music—and the relationship between all these issues and performance. I hope these discussions will stimulate musicians to explore their own approaches to this music that is central to every violinist's repertoire.

The first chapter places the solo-violin works in various contexts. Chapters 2–5 offer detailed studies of each movement of the G-minor Sonata, complemented by discussions of the A-minor and C-major solo sonatas and many other pertinent works. Chapter 6 surveys the solo partitas. And Chapter 7 places the themes of the book in larger contexts.

I wish to thank Mr. James Fuld of New York for his generosity in letting me view his privately held copy of the first published edition of Bach's solo-violin works. I thank Jane Gottlieb, Librarian of the Juilliard School,

and Deborah Davis, Librarian of the Harry Scherman Library at Mannes College of Music, for lending me various editions from their libraries. I thank Kenneth Yarmey for compositing the musical examples. And I thank the staff of Oxford University Press: Maribeth Payne for helping me formulate the idea for this book, Jonathan Wiener for steering it from conception through completion, and Cynthia Garver for overseeing its production.

Bronx, New York
December 1998

J. L.

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Bach's Works for Solo Violin

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ONE

The History of Bach's Solo-Violin Works

There is an old musical game in which the players try to recognize a piece after hearing only its opening. Example 1-1, for instance, surely inspires music lovers to anticipate the glorious solo entry of Mendelssohn's Violin Concerto. The game becomes more difficult if one hears only a piece's very opening sound. A colleague once posed Example 1-2 as a real puzzler, until his addition of a note or two at a time revealed to all the opening of Beethoven's *Diabelli Variations*, op. 120.

But not all opening sounds are so difficult to identify. The densely packed, low C-minor chord beginning Beethoven's *Pathétique* Sonata, op. 13, is a dead giveaway, as are the opening chords of the *Eroica* Symphony or Symphony of Psalms. These chords are such special sonorities that they have become icons for those compositions.

Violinists know Example 1-3 as such an icon—clearly it is the opening of Johann Sebastian Bach's Sonata in G Minor for Violin Solo. This four-note chord is an icon for the entire sonata, resonating through all four movements and concluding all three G-minor movements.

Indeed, since this chord opens Bach's cycle of solo-violin works, in a larger sense it alludes to the entire collection of unaccompanied sonatas and partitas. And from the broadest perspective, it is an icon for all violin music—in part because these Bach pieces have been so central to violin pedagogy for more than two centuries, but even more because the chord, containing the two lower open strings, so embodies violinistic sound and sonority. Just as Bach opened his *Well-Tempered Clavier* by arpeggiating a major triad from middle C and opened his cycle of *Inventions* with a scale rising from that same middle C—both simple statements of the most central sounds on a keyboard—Bach ingeniously opened his solo-violin cycle with the simplest and most characteristic chord a violin can produce.

Later composers knew this chord well. Over two centuries after Bach composed his G-minor Sonata, Béla Bartók (1881–1945), writing in a musical idiom far removed from Bach's, opened his own Sonata for Solo

Example 1-1. *Allegro molto appassionato*

Example 1-2. *Vivace*

Example 1-3. J. S. Bach, Sonata in G Minor for Violin Solo, *Adagio*, opening chord.

Violin (1944) with the very same four-note chord as an homage to Bach. Indeed, Bartók closely modeled his work on Bach's G-minor Sonata: using an overall focal pitch of G and following Bach's ordering of a slow movement, a *fuga* built from a rhythmic subject, a songful movement in B \flat , and a *presto* finale.

In sum, Bach's G-minor Sonata—and its siblings in the set of six solo-violin works—stands on a special pedestal within violin repertoire and concert music. In this book, I stroll around this pedestal, pausing to view the piece and its companions from a variety of angles.

First and foremost, I consider these works as early-eighteenth-century compositions. At that time, almost all music was composed over a supporting bass part, which led Hugo Riemann (1848–1919), the most influential music scholar around 1900, to dub the period we call the Baroque “The Age of Thoroughbass.”¹ Yet Bach's solo-violin works lack a supporting bass instrument. Bach clearly knew how unusual that was, because his autograph score, even before the first note, redundantly refers no fewer than four times to the absence of a bass part. Bach wrote “Six *Solos* for Violin *without Accompanying Bass*” on the title page and “First Sonata for Violin *Solo without Bass*” (emphases added) atop the first movement (shown in Figure 1-1).² This suggests a question central to this book: How can these pieces be archetypically Bachian compositions when they lack a *basso continuo*, one of the defining characteristics of their age?

Theoretical writings and compositional procedures of Bach's time are central to exploring such a question. Theorists of Bach's time did not have a monopoly on the truth about their music, any more than modern scholars do. But the ideas of Bach's contemporaries, carefully applied to these pieces, reveal aspects unattainable solely by modern perspectives. This

Sonata G-moll Violino Solo senza Basso di J. S. Bach

1
3
16
19
11
13
14
16
18
20
22

Adagio

J. S. Bach

Figure 1-1. Bach, Sonata in G Minor, *Adagio*, autograph score (measure numbers added on left).

helps us to understand how this piece arose as it did and what sense it might have made to its contemporaries.

But Bach's solo-violin works are important to us not only because they made sense to Bach's contemporaries. They have remained important generation after generation, unlike much other music popular in Bach's time that has faded into oblivion. The solo-violin works were an important part of the rediscovery of Bach by the early nineteenth century. Many music histories tell of the famous 1829 Berlin performance of Bach's *St. Matthew Passion* conducted by Felix Mendelssohn—a landmark in the Bach revival. A generation earlier, in 1802, Bote and Bock in Bonn published Bach's complete solo-violin music for the very first time, supplanting the manuscript tradition that had sustained the works since their composition over 80 years before. The year 1802 is also when the great early musicologist Johann Nicolaus Forkel (1749–1818) published the first book-length biography of Bach and only two years after the first publications of the *Well-Tempered Clavier* (which, like the solo-violin works, existed only in manuscript copies during the eighteenth century.)³

What did Bach's solo-violin works say to nineteenth-century musicians? And why have they remained central to violin pedagogy and performance until our time? If we are to understand what later generations saw in this piece, we must consider how musicians of various historical periods heard the work in terms of the music of their own times. We should consider not only the sorts of issues theorists of various periods have raised but also how composers and performers have interpreted the piece. Robert Schumann (1810–56) wrote piano accompaniments to the entire cycle (partly in response to a published accompaniment of the *Chaconne* by Mendelssohn).⁴ The ways these accompaniments highlight some aspects of the music and ignore others teach us how Schumann heard the pieces. Likewise, Johannes Brahms published two piano versions of the *Presto* of the G-minor Sonata and an arrangement of the *Chaconne* for left hand alone in 1878.⁵ Ever since the 1840s, violinists have been publishing their own edited versions of the solo works, adding fingerings and bowings and changing Bach's notations—thereby teaching us what they heard in the piece and how they might have played it. The twentieth century has seen an ever-growing number of recordings and many more edited scores. All these perspectives are part of the history of the work, of the way we perceive it, and of what we bring to performances as violinists or listeners.

The Historical Setting

Bach completed his sonatas and partitas for solo violin no later than 1720, the date on his manuscript of all six pieces. Bach turned 35 that March and in July buried Maria Barbara Bach, his wife of 12 years. She had borne seven children—but only two survived infancy: the future musi-

cians Wilhelm Friedemann Bach (1710–84) and Carl Philipp Emanuel Bach (1714–88). The nine-year-old Wilhelm Friedemann received from his father in January of 1720 a music manuscript book—*Clavierbüchlein vor Wilhelm Friedemann Bach* (Little Keyboard Book for Wilhelm Friedemann Bach)—that would eventually contain a variety of musical treasures relevant to us here.⁶ Wilhelm's younger brother, Carl Philipp Emanuel, among the most important German composers and theorists of the later eighteenth century, turned six that year.

The year 1720 was the midpoint of Bach's five-and-one-half-year employment as Capellmeister, director of music, at the court of Leopold, Prince of Anhalt, in Cöthen, a town about 75 miles southwest of Berlin. Bach's job involved no duties as an organist or church musician. So he turned to instrumental music, composing (in addition to the solo-violin works) many of his most famous collections: the "Six Concertos with Several Instruments" we know as the *Brandenburg* Concertos (dedicated in 1721 to the Elector of Brandenburg, a region of Prussia), the first volume of the *Well-Tempered Clavier* (whose title page is dated 1722), the six so-called *French Suites* (first written down as a cycle in 1722), the two-part and three-part *Inventions* (whose title page is dated 1723, but which were composed somewhat earlier), six sonatas for violin and harpsichord (1717–23), three sonatas for viola da gamba and harpsichord (ca. 1720), and six suites for solo cello (ca. 1720).

Each collection comprehensively explores the possibilities of its genre. The *Brandenburg* Concertos, for instance, survey a wide range of *concerto grosso* types. Each concerto features different orchestral and solo instruments and different manners of combining the solo(s) and *ripieno*. Each of the 24 preludes and fugues of the *Well-Tempered Clavier* and the two- and three-part *Inventions* differs from its companions in style and construction—all demonstrating Bach's belief that a composer should have "good *inventiones* [musical ideas] . . . [and] develop them well," as Bach explains on the title page to the *Inventions*.⁷ Indeed, that title page explains why Bach drew together many, if not all, of these collections: not only to write good music but also to provide good material for performers to develop their art and for aspiring composers to learn the many ways a musical idea can be developed into a piece of music.

The six solo-violin pieces are one of these comprehensive collections that Bach intended for performance and edification. They are divided into two sets of three pieces: three "sonatas" and three "*partias*" (as Bach spelled "*partitas*" in his autograph score). The three sonatas exemplify the *sonata da camera* (chamber-sonata) genre, each having a slow movement, a fugue, another slow movement, and a fast finale. All three *partitas* exemplify the *sonata da chiesa* (church-sonata) genre, each containing a series of dance movements. But no two *partitas* or sonatas are quite the same.

Among the *partitas*, the first (in B minor) offers a fairly standard sequence of dances: *allemanda*, *corrente*, *sarabande*, and *borea* (the Italian spelling of *bourrée*)—the only unusual feature in this ordering is ending

with a *bourrée* instead of a *gigue*. But unlike in the other solo-violin partitas, a “double” or variation follows each dance. The second partita (in D minor) has almost the same sequence of dances, ending with the more usual *Giga*. But Bach then appended the immense *Chaconne*. The third partita (in E major) contains a rather different sequence of movements: a *preludio* (replacing the more common opening *allemande*), a *loure*, a *gavotte en rondeaux* (a *gavotte* with rondolike returns of the refrain), two *menuets*, a *bourrée*, and a *gigue* (the last two with the French spellings, not the Italian spellings Bach used in the other partitas).

Even though the three sonatas share the overall ordering of movements, they differ in various ways. The opening movements of the first two sonatas feature melismatic melodies supported by chords, while the opening movement of the third sonata gradually moves through repeating chords activated by a hypnotically recurring dotted rhythm. The fugues of the first two sonatas are based on short, rhythmic subjects (one featuring mostly stepwise motion that spans only a fourth while the other features four skips and spans an octave), while the fugue subject of the third sonata is a much longer, legato melody recalling a chorale tune. The slow third movements differ considerably from one another: a through-composed lilting *siciliana*, a pulsating *andante* with two repeated sections, and a through-composed *largo*.

Even more important, the keys of the six solo pieces are different. On the violin, with four fixed open strings, the choice of key directly affects compositional options. In the G-minor Sonata, for instance, the lowest string on the instrument is the tonic, and there is an extremely resonant, easily played, four-voiced tonic chord—the iconic opening chord discussed earlier—that appears in all the movements. The tonic and dominant of G minor are G and D, the two lowest strings of the violin, suggesting bass pedals that, in fact, occur during the Fugue. All this promotes the relatively deep, stable sonority and serious demeanor of the piece, relieved only during the *Siciliana*, the only movement that is not in G minor.

By contrast, in the E-major Partita the lowest tonic note is a major sixth above the open G string. A four-voiced root-position tonic triad would be awkward at best, and Bach never wrote one in any of the seven movements. The tonic and subdominant are the highest strings on the violin, promoting prominent upper-voice pedals on those notes during the *Preludio*—reinforcing the bright sonority that gleams throughout the piece (even if gut strings are used).

With these differences in genre, types of movements, keys, and innumerable other factors, Bach's six solo pieces explore the widest possible range of music for violin of the early eighteenth century. Just as Bach's solo harpsichord and organ works probe those instruments' possibilities and just as Bach's cantatas and passions offer an extraordinary palette of expressive sacred music, his violin solos offer a universe of violinistic and compositional possibilities.

Bach and the Violin

It may seem somewhat surprising that Bach conceived of writing such visionary music for solo violin. First, there was absolutely no previous tradition anywhere of solo-violin music of such scope. Second, when we think of Bach as a performer we usually think first of the organ, on which Bach was renowned in his own lifetime, and the harpsichord. But Bach was also a violinist. When he was 18 he briefly held a post as violinist in Weimar in 1703, and he had violinistic duties in Weimar again between 1708 and 1717.⁸ Carl Philipp Emanuel Bach reported in 1774 that his father continued to play the violin “cleanly and penetratingly . . . until the approach of old age.”⁹ Johann Sebastian may not have been famous as a violinist like his Italian contemporaries Arcangelo Corelli (1653–1713) and Antonio Vivaldi (1675–1741). But Bach certainly had sufficient experience on the instrument to develop a deep understanding of its possibilities.

In truth, we hardly need historical evidence to prove Bach's deep understanding of the violin; his violin music demonstrates that he was both a violinist and a composer. Sometimes, however, this is not obvious to modern musicians. The solo-violin part in the third movement of the *Brandenburg* Concerto no. 1 provides a case in point. In modern editions, many multiple-stops are awkward to grasp, and the violinist must frequently shift right before or after each chord. Right at the beginning of the first extended multiple-stop passage (shown in Example 1-4a), the violinist must either shift to get from one triple-stop to the next or play somewhat awkwardly in second position. The quadruple-stop in the second measure awkwardly demands that the violinist's relatively short and thin fourth finger arch over the two upper strings yet be flat enough to play a good perfect fifth on the two lower strings. Similar problems bedevil each following measure. It seems that Bach either intended an awkward passage or simply did not understand violin fingering.

But Bach never composed those awkward multiple-stops and shifts! He intended the solo violinist to gain brilliance by tuning the open strings up a minor third to B \flat , F, C, and G and fingering the instrument as if the piece were in D major, as shown in Example 1-4b. It is no secret that D major—the key of the Beethoven, Brahms, and Tchaikovsky concertos—is one of the most resonant and easily playable keys on the violin. Modern players who learn the solo part in the first *Brandenburg* Concerto on a regularly tuned violin are often surprised at how well the violin part lies under the fingers in the D-major version that Bach actually wrote. In that version, the first seven measures are easily negotiated in first position. The first minor complication arises in the eighth measure (m. 32), where half position is necessary for only the first note—but Bach provides the open A string as the immediately following note, allowing a moment for the left hand to resume its normal position. The only tricky measure in this entire solo is the penultimate one (m. 34), where the music suggests staying in half position

Example 1-4. Bach, *Brandenburg* Concerto no. 1, third movement, mm. 25–28 and 30–35. + = awkward stretch; * = mandatory shift of position; o = open string; $\frac{1}{2}$ = half position: (a) solo-violin part transposed to F major; (b) solo-violin part as Bach wrote it.

a.

b.

for the first three notes. This difficulty occurs at the very end of the solo, at the peak of a rising sequence that leads into a tutti under the held unison. Bach must have known from personal experience that squeezing the hand into half position helps generate extra energy as the violinist builds to the tutti. I urge violinists playing with regular tuning to rescore the multiple-stops so that they lie well under the fingers, as Bach surely would have done had he composed for a regularly tuned violin. (Another eighteenth-century piece with a transposed solo string part is Mozart's *Sinfonia concertante* for Violin and Viola, K. 364. Mozart wrote in E_b major so that he could have the viola tuned up a semitone and fingered in resonant D major while the violinist plays in the less resonant E_b major, making possible an equal partnership between the viola and the violin. In modern performances, both soloists routinely play in E_b , which is fine, since modern strings and setup allow violas to compete more equally with violins.)

Likewise, innumerable passages in the solo pieces lie beautifully under the fingers, becoming truly difficult primarily at musical climaxes, where the violinistic virtuosity necessary to surmount the technical challenges automatically adds to the musical excitement. Only a composer who knew intimately how violin technique works—who could think compositionally as a violinist—could have crafted such perfect solo-violin music.

In summary, the conjunction of Bach's extraordinary skills on organ and harpsichord and his solid knowledge of violinistic possibilities probably inspired him to compose the solo-violin works. He may well have dreamed that solo-violin music could, in fact, compete with the complex types of music commonly written for the keyboard instruments.

Bach's Score

There is a single autograph score (that is, a single score in Bach's handwriting) of all six solo-violin works: the three sonatas and three partitas. Since 1917 the score has been in the library in Berlin now called the Deutsche Staatsbibliothek (German State Library). There are a number of facsimile editions of this autograph, including:

Sei solo á violino senza basso accompagnato: Libro primo da Joh. Seb. Bach, with commentary by Wilhelm Martin Luther (Kassel: Bärenreiter, 1958)

Bach, Sonaten und Partiten für Violine, Faksimile-Ausgabe, with commentaries by Günter Hausswald and Yehudi Menuhin (Leipzig: H. F. Jütte, 1962)

Bach, *6 Sonatas and Partitas, for Violin Solo*, ed. Ivan Galamian, with facsimile of the autograph manuscript (New York: International Music, 1971)

Sei solo á violino senza basso accompagnato: BWV 1001-1006, Johann Sebastian Bach, ed. Georg von Dadelzen (Kassel: Bärenreiter, 1988)

The score is of great interest, beginning with the title page itself, which reads:

Sei Solo.	Six Solos.
á	for
Violino	Violin
senza	without
Basso	Bass
accompagnato.	accompaniment.
Libro Primo.	First Book.
da	by
Joh. Seb. Bach.	Joh. Seb. Bach.
aó. 1720	in the year 1720

As already discussed, Bach clearly felt that a continuo part was such a universal participant in early-eighteenth-century textures that it was necessary to call attention to its absence, not just on the title page but even in the title to each of the three sonatas and three partitas during the course of the manuscript. Bach did not compose melodic parts, but complete textures

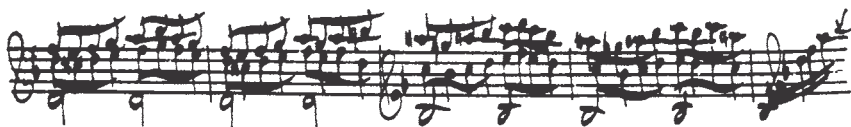


Figure 1-2. Bach, Sonata in G Minor, *Fuga*, eleventh line of the autograph score.

—removing the necessity for an added “accompanying” bass. How he did so is a topic discussed throughout this book.

As has been noted by others, the clean, calligraphic handwriting on the autograph and the absence of any recomposed passages mean that Bach made this copy from earlier working scores (which no longer exist).¹⁰ The only passage on the entire autograph with substantial alterations appears on two staves following the end of the E-major Partita, where some notation was so vigorously erased or scratched out that it is indecipherable. (We may have a glimpse into the content of Bach’s earlier working scores through a copy made by Bach admirer Johann Peter Kellner [1705–72] in 1726, described later in this chapter.) The autograph score is of interest to performers, which has motivated the several facsimile editions listed here. Through the notation, it is clear that Bach was hearing the music as he copied it. If we are to attune ourselves to these dim echoes of his hearing, we must learn a number of differences between Bach’s notation and modern practices.

Clefs

In general, Bach wrote the violin solos in treble clef, agreeing with modern usage. But when the register remains very high for a while, Bach switches to the so-called French violin clef (a G clef on the lowest line of the staff, commonly used by French composers of the period to notate violin parts). Figure 1-2 shows a line in the *Fuga* of the G-minor Sonata in which Bach switches to the French violin clef as the music heads into several ledger lines and then switches back to treble clef at the end of the line as a slightly lower register returns.

In general, musicians in the early eighteenth century were expected to be familiar with a much wider range of clefs than we use today. German musicians of the period, for instance, commonly notated the right-hand parts of keyboard music in soprano clef (a C clef on the lowest line of the staff), as shown in Figure 2-1 in chapter 2, even though they used treble clef for soprano instruments (violin, flute, oboe, trumpet, and so forth). The very first page of the *Clavierbüchlein vor Wilhelm Friedemann Bach*, which Johann Sebastian Bach gave to his nine-year-old son, teaches how to read notes in eight clefs. And Godfrey Keller (d. 1704), a German musician who moved to London, thought it necessary in his much-reprinted posthumous thoroughbass manual to end with thoroughbass exercises where changing “Cliffs Interfer one with the other.”¹¹

Custos

Bach consistently employs an old marking—a *custos* or guide—at the end of a staff to indicate the first note on the next staff. The first staff of Figure 1-1, for instance, ends with a mordentlike mark with a flag on the fourth-line D, indicating the D that begins the next staff. Bach includes complete chords (as at the end of the third staff) and even any necessary accidentals (as at the end of the fifth staff).

Key Signature

Bach's key signatures are not always the modern ones. For the entire G-minor Sonata he wrote a one-flat signature, as shown in the *Adagio* autograph in Figure 1-1. For the movements in G minor, this indicates the Dorian mode or D-mode, in which the semitones occur between scale steps 2–3 and 6–7 (instead of between 2–3 and 5–6 as in the modern key signature for minor keys, which follows the Aeolian mode or A-mode).

This Dorian signature is one of the “incomplete key signatures” still common early in the eighteenth century. These signatures persisted for several reasons. First, some musicians, including Germans, believed the old church modes were the basis of modern music. Just about the time Bach composed his solo-violin works, musicians whom Bach knew personally argued publicly about this. The Hamburg composer, theorist, and journalist Johann Mattheson (1681–1764) set off the furor in his first book, titled *The Newly Published Orchestra; or Universal and Basic Introduction by Means of Which a Gentleman May Acquire a Complete Idea of the Grandeur and Worth of the Noble Art of Music, May Accordingly Develop His Taste, May Come to Understand Technical Terms, and May Skillfully Reason about This Admirable Science*.¹² In Enlightenment spirit, Mattheson declared the old church modes useless for a modern “gentleman.” His sarcasm incited Bach's fellow church organist Johann Heinrich Buttstett (1666–1727) of Erfurt (just a few miles away) to defend the modes in *Ut, mi, sol, re, fa, la, the Totality of Music and Eternal Harmony; or The Newly Published, Old, True, Sole and Eternal Foundation of Music, in Answer to the Newly Published Orchestra*.¹³

Mattheson, who had fought a duel with the 19-year-old Georg Friedrich Händel in 1704, was not one to walk away from a fight. He blasted Buttstett in *The Orchestra Defended (Das beschützte Orchestre)*, humorously denouncing Buttstett's *tota musica* (the totality of music) as *todte musica* (dead music).¹⁴ Mattheson, who admired British law, dedicated *Das beschützte Orchestre* to a jury of 13 prominent musicians and published in his journal *Critica musica* letters he received from them.¹⁵ One dedicatee angrily denounced the major and minor keys: Johann Joseph Fux (1660–1741), Viennese Capellmeister, Italian opera composer, and author of *Gradus ad parnassum*, which bases species counterpoint and fugue on the modes.¹⁶

Bach was not one of Mattheson's dedicatees, so we lack his thoughts on this dispute. But he must have been aware of the goings-on. In July 1716 Bach examined an organ in Erfurt, where Buttstett may have bent Bach's ear on the issues, and in 1720 Bach met Mattheson in Hamburg when he applied for an organ job.¹⁷

A second reason for the maintenance of incomplete key signatures was an ongoing disagreement among musicians about exactly which accidentals really belonged in the key signature of minor keys. In 1716, while the Mattheson-Buttstett dispute raged among German musicians, the Parisian musician François Campion (ca. 1686–1748) insisted that Dorian was the proper form of a minor scale: "The flat [for the lowered sixth degree] should not be placed in the signature since it is accidental, just like the sharp [for the raised seventh degree]."¹⁸ Six years later, the great French composer and theorist Jean-Philippe Rameau (1683–1764) preferred the Dorian form of minor in his groundbreaking treatise *Traité de l'harmonie* (Treatise on Harmony). Yet Campion and Rameau—like Bach—reflected the indecision common at the time. Campion uses a Dorian signature solely for minor keys with no sharps (D, G, C, F, B \flat , and E \flat), preferring an Aeolian signature for the remaining keys (A, E, B, F \sharp , C \sharp , and G \sharp minors); Rameau opted for the Aeolian form of minor beginning with the supplement published along with his *Treatise*.¹⁹ And Bach used the same one-flat signature for both the G-minor Sonata and the D-minor Partita.

Not until later in the eighteenth century did it become standard to use the Aeolian signature for all pieces in minor keys. Yet as late as the 1820s Beethoven used a Dorian signature for the *Arioso dolente* in A \flat minor (mm. 6–26 of the third movement) of his Piano Sonata in A \flat , op. 110. Most modern editions retain that six-flat signature.

As a result, it is not surprising that Bach used only a single flat for the movements of the first sonata that are in G minor. It is more surprising that he retained only a single flat for the third-movement *Siciliana* in B \flat major—seemingly in the Lydian mode or F-mode. Fully two centuries earlier, theorists had explained that the prominent augmented fourth between the final (F) and the fourth degree (B) in the F-mode was universally converted to B \flat , creating the Ionian mode or C-mode with the same notes as a major scale.

Bach's incomplete signatures do not mean, however, that the Sonata in G Minor is in the modes rather than in minor and major keys, as some modern editions assert.²⁰ Like much of his music, the sonata is fully tonal in the modern sense of the term (which is why Bach's chorales and other pieces have played a central role in the teaching of tonal harmony for over two centuries—even though he also wrote a great deal of music, especially music based on some chorale melodies, that is in the older modes). Bach dutifully added E \flat s throughout the sonata whenever necessary.

Yet . . . a few slips of the pen show that Bach himself, even in a finished calligraphic manuscript, thought more in terms of the modern signature than of the Dorian or Lydian modes. On the sixth staff of the G-minor

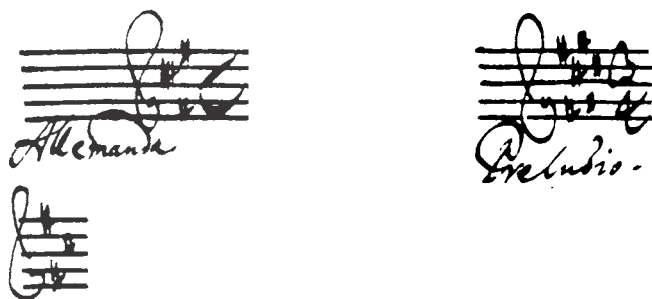


Figure 1-3. Bach's key signatures with sharps: (left) Partita in B Minor for Violin Solo, *Allemande*, first two signatures, (right) Partita in E Major, *Preludio*, first signature.

Adagio (in Figure 1-1), he absentmindedly added an $E\flat$ to the signature, even though he then proceeded to put a flat in front of each $E\flat$ on that line. And on the third beat of m. 3 (second beat of the second staff in Figure 1-1), where the lowest note of the triple-stop should be $E\flat$, not E, he clearly forgot that there was no $E\flat$ in the signature. Bach may have been one of the great creative geniuses—but he still was human enough to make simple notational errors.

Bach's notation of key signatures also differs from modern practice when the accidental indicated in the signature occurs twice on a staff. As shown in Figure 1-3, he wrote two sharps for F in the B-minor Partita and two sharps for both F and G in the E-major Partita; and he did not have a standard ordering for the accidentals in a key signature.

Accidentals

Bach notated accidentals differently than modern conventions dictate: he placed an accidental before every affected note, except for notes repeated immediately on the same staff in a single voice part. Thus in m. 11 of the G-minor *Adagio* (the middle of the fifth staff on Figure 1-1), flats precede four of the five $E\flat$ s; only the grace note $E\flat$ lacks one—it immediately follows an $E\flat$ in the same voice. Even across a bar line Bach omits a new accidental before repeated notes, as with the $F\sharp$ that begins m. 19 (middle of ninth staff). But repeated notes that begin a new staff require an accidental; thus $E\flat$ on the downbeat of m. 19 (beginning of the ninth staff) carries a flat, even though the same note in the same voice ends the preceding line. (Interestingly, the *custos* for that $E\flat$, at the end of the eighth staff, neither has nor needs a flat, because it is a repeated “note” on the same staff in a single voice.) And repeated notes in different voices require an accidental, as with the repeated $E\flat$ at the end of m. 17 (end of eighth staff).

Bach generally saved enough room when he was writing the note heads to fit in the required accidentals. Right in the first measure, for instance, the note heads for the thirty-second and sixty-fourth notes on the second and fourth beats are (roughly) evenly spaced except for the E \flat and F \sharp , where Bach left enough room for the flat and sharp signs. But occasionally Bach forgot to leave space for an accidental, forcing him to squeeze it in: in the third beat of m. 18 (first measure on the ninth staff), he squeezed in the flat above the E note head; and at the very end of that staff, he squeezed in the sharp for F so that it actually looks like a sharp for a nonexistent E.

Bach's notation of all these seemingly extra accidentals is not merely a relic of past conventions. It also illuminates musical meanings less obvious in modern notation. The notes that receive accidentals are quite often "sensitive" notes that demand resolution. Remember François Campion's argument promoting Dorian key signatures: *both* the raised-seventh degree (leading tone) and the lowered-sixth degree in minor are "accidental." The leading tone of a new key is another sensitive note, which eighteenth-century theorists routinely cited as the signal of a modulation.

These notes that pull strongly in the direction of their alteration generally receive accidentals in Bach's notation. Ex. 1-5 juxtaposes m. 8 of the G-minor *Adagio* in the authoritative modern score published in *Johann Sebastian Bach, neue Ausgabe Sämtlicher Werke* (Johann Sebastian Bach, New Edition of the Complete Works) with Bach's autograph. In modern notation, one sharp suffices for four C \sharp s and B \natural is far from any sharp sign—almost making B \natural look like a leading tone to C. In Bach's score, by contrast, four sharps and the B \natural between two explicit C \sharp s palpably urge these C \sharp s—part of an extended dominant of the key of D minor—toward its resolution on the next downbeat.

Stems and Beams

Bach notated multiple-stops with separate stems for each note, as in the first chord of the *Adagio* and its recurrence in the middle of the second measure in Figure 1-1. Such separate stemming is common in notation for all instruments in the early eighteenth century, highlighting the sense in which the harmonies arise from independent voices that move between harmonies.

The stems' direction is a matter of both convenience and analytical significance, often suggesting performance nuances to a violinist. Thus in the first measure of the G-minor *Adagio*, Bach wrote all the stems upward—even the bass—perhaps because a downward bass stem would have encroached on music not yet written on the second staff. The top note has an ascending stem, marking the beginning of the melody. The second beat, however, has downward stems for at least three reasons: first, because that is the standard direction for stems on these notes; second, with no other notes sounding during that beat, it is clear that this part is the leading part;

Example 1-5. Bach, Sonata in G Minor, *Adagio*, m. 8: (a) in Bach's autograph score; (b) in the *Neue Bach Ausgabe*.



and third, because the melody that begins in the upper voice does, in fact, lead into the middle voice by beat 3. During the second beat of m. 13 (after the fermata on the sixth staff), the notes sweep from low to high across almost the entire registral span of the *Adagio*—and the stems follow suit, beginning about as low as possible and rising to bump into the notation on the staff above. Just as dramatic—and even more unnecessary according to conventions—is the upward sweep during m. 20 (first measure on the penultimate staff), where Bach maintains upward stems from the G string all the way to the G–F# in the next measure, vividly depicting the ascent through virtually the entire register of the *Adagio*.

Also above and beyond notational necessities or conventions, the beams' curvature frequently expresses musical shapes, suggesting dynamic and even rhythmic nuances to a violinist. The curvature during the fourth beat of m. 1 closely follows the contour of the melisma; even more dramatically, the curvature on the second beat of m. 18 (second beat on the ninth staff) depicts the sudden downward swoop of the melisma, even suddenly narrowing the space between the beams at the very end.

Finally, Bach's beaming differs from modern notation in that where appropriate the beaming is unbroken within single beats, instead of subdividing beats as in modern notation. As shown in Example 1-6, the *Neue Bach Ausgabe* breaks the continuous thirty-second-note beam in m. 3 of the G-minor *Adagio* to show the eighth-note subdivisions, whereas Bach's unbroken notation highlights the melisma's continuity.

Slurs

The most problematic notational aspect in all the sonatas and partitas is the slurring. Sometimes it is quite clear how many notes Bach placed

Example 1-6. Bach, Sonata in G Minor, *Adagio*, m. 3: (a) in Bach's autograph score; (b) in the *Neue Bach Ausgabe*.



under a single slur. For instance, Bach seems to have added a hook to the slur at the end of m. 7 of the G-minor *Adagio* (the last complete measure on the third staff of Figure 1-1) to specify exactly how long the slur lasts. But frequently his intended slurring is not at all clear. For instance, in beat 3 of m. 4 (the second measure of the second staff), does the slur begin on the D or the F#? On the downbeat of m. 5, does the slur begin with the downbeat A or does it begin on the Bb? On the third beat of the same measure, does the slur connect F to D or D to Eb? And occasionally slurs seem to have been omitted: there are no slurs for any of the thirty-seconds in the first beat of m. 10 (last measure on the fourth staff)—the only beat in the entire *Adagio* with unslurred thirty-seconds. Performers need to make decisions in such cases based on their intuitions as well as comparisons with comparable passages elsewhere.

A 1986 article by Bach scholar Georg von Dadelsen contains many valuable reminders about Bach's notation of slurs.²¹ Dadelsen, whose careful study of Bach's manuscripts is the foundation of the modern chronology of Bach's compositional output, acknowledges that Bach's slurring often comes down to us in a somewhat confused picture. Nonetheless, we can gain insights into his intentions by remembering a few points. First, Bach often wrote slurs *below* notes a bit too far to the right. In the *Adagio* autograph in Figure 1-1, this happens several times, including: m. 11, third beat (middle of fifth staff); m. 12, second beat (end of fifth staff); m. 16, third beat (eighth staff); and m. 17, third beat (eighth staff), in which the slur under the sixteenths actually seems to extend through the notes covered by the following slur for the sixteenths. Knowing this will help a performer see that Bach probably did *not* intend the first thirty-second notes to be separated from the following slur in any of the passages cited in the previous sentence. Likewise, in m. 20 (beginning of penultimate staff) Bach probably

intended to slur the first two beats in the same manner, with the slur beginning on the thirty-second note. And in m. 5, third beat (end of second staff), the slur was probably intended for F–D—compare m. 3, first beat (end of first staff).

A second point stressed by Dadelsen is the eighteenth-century predilection that downbeats be played downbow, a habit called the “Rule of the Downbow.” David Boyden has pointed out in his authoritative study on violin playing that the origins of this “rule” may well date from the sixteenth century.²² It remained the norm throughout the eighteenth century, given a characteristically firm statement by Leopold Mozart (1719–87), Wolfgang’s father, who was himself a composer and violinist and who published the most important eighteenth-century German treatise on violin playing in 1756: *Versuch einer gründlichen Violinschule* (A Treatise on the Fundamental Principles of Violin Playing).²³ Even though Leopold Mozart was a generation younger than Bach, his treatise of the 1750s probably reflects practices of the decade or so immediately preceding, bringing it quite close in time to Bach’s sonatas.

To be sure, not all violinists observed the Rule of the Downbow. Francesco Geminiani (ca. 1679–1762), a violin pupil of Corelli’s who had a major career centered in Britain after 1714, despised the “wretched rule of downbow” in 1751.²⁴ And as David Boyden points out repeatedly, the rule in its strictest form characterizes bowings in French dance music more than in violin playing in general. Nevertheless, the natural weight of the bow near the frog tends to make most violinists of all eras favor downbows on downbeats, all factors being equal. Combining insightful reading of Bach’s slurring with the Rule of the Downbow generally shows that Bach’s slurrings in the solo works do indeed make musical and violinistic sense.

Bach the Performing Copyist

In many of these notational matters, Bach was clearly hearing this music as he wrote it. His notation, like that of many other composers, reflects various aspects of the performance he imagined. Every notational detail merits consideration by a performer and analyst, for a sensitive reading of Bach’s notation can slightly part the veils of time to give us a glimpse of his own hearing of these pieces.

The Transmission of Bach’s Sonatas and Partitas

Manuscripts and Publications

Bach’s solo-violin works existed only in manuscripts during their first eight decades. Three complete copies survive: Bach’s autograph score, a copy by his second wife (Anna Magdalena), and a copy by two unknown

scribes.²⁵ In addition, various partial copies survive, including one dated 1726 by Bach admirer Johann Peter Kellner that is of particular interest. It orders the pieces differently, omits the B-minor Partita altogether, and abbreviates several movements (especially the G-minor *Fuga* and the *Chaconne*). Bach scholars disagree whether these differences reflect earlier versions of the pieces or Kellner's own attempts to make these movements easier to play. In any event, this copy reflects a source other than Bach's autograph and the two other copies cited previously.²⁶ All this confirms, of course, that Bach copied his autograph with its clean calligraphy from earlier manuscripts that no longer survive.

The year 1798 marks the first publication of even a single movement. The French violinist Jean Baptiste Cartier (1765–1841) (a pupil of the great Italian violinist-composer Giovanni Battista Viotti [1753–1824]) included the C-major Fugue in *L'Art du violon ou divisions des écoles choisies dans les sonates Italienne, Française et Allemande* (The Art of the Violin, or School Pieces Chosen from Italian, French, and German Sonatas) (Paris, 1798), a manual of violin playing dedicated to the Paris Conservatory, then three years old. Cartier drew upon a manuscript (presumably of all the solo works) owned by Pierre Gaviniès (1728–1800), the first violin teacher in the Paris Conservatory.

Four years later, the Bonn music publisher N. Simrock published the whole cycle in an edition that exists with different title pages. A copy owned by James Fuld of New York (soon to reside in the Morgan Library) carries the title *Studio o sia Tre Sonate per il Violino solo del Sig^r Seb. Bach* (Studies, or Three Sonatas for Violin Solo by Mr. Seb. Bach), while another copy in the Österreichische Nationalbibliothek Wien (Austrian National Library in Vienna) omits the words that precede “*Tre Sonate*.”²⁷ Strikingly, the term “three sonatas” covers all six solo pieces. A single “sonata” comprises one sonata plus one partita: the first “sonata” is the G-minor Sonata plus the B-minor Partita; then comes the pairing of the A-minor Sonata and the D-minor Partita, followed by the C-major Sonata plus the E-major Partita.

In addition, some title pages of this edition title the pieces “studies,” confirming Forkel's 1802 remark that Bach's “violin solos have for many years been universally considered by the greatest violinists as the best means of giving eager pupils complete mastery of their instrument.”²⁸ A 1774 letter by Carl Philipp Emanuel Bach to Forkel is probably the source of this statement; Bach wrote that “one of the greatest violinists told me once that he had seen nothing more perfect for learning to be a good violinist, and could suggest nothing better to anyone eager to learn, than the said violin solos without bass.”²⁹ According to Johann Friedrich Agricola (1720–74), pupil of J. S. Bach during 1738–41, organist, composer, and coauthor (with C. P. E. Bach) of an obituary of J. S. Bach, Johann Sebastian intended the solo-violin pieces as studies “designed for learning to master the full resources of an instrument . . . present[ing] all possible difficulties to enable the student to acquire a firm control of them.”³⁰ And

as Cartier's inclusion of the C-Major Fugue in his collection of "school pieces" shows, Bach's solo works were studied in France as well.

In 1843, Ferdinand David (1810–73), the great violinist for whom Felix Mendelssohn composed his Violin Concerto in 1845 and a teacher at the Leipzig Conservatory after 1843, brought out the first edited publication of the solo works, retaining the title of the 1802 publication as a subtitle:

Sechs Sonaten für die Violine allein von Joh. Sebastian Bach. Studio ossia tre Sonate per il Violino solo senza Basso. Zum Gebrauch bei dem Conservatorium der Musik zu Leipzig, mit Fingersatz, Bogenstrichen und sonstigen Bezeichnungen versehen von Ferd. David. Für diejenigen, welche sich diese Werk selbst bezeichnen wollen, ist der Original-Text, welcher nach der auf der Königl. Bibliothek zu Berlin befindlichen Original-Handschrift des Componisten auf's genaueste revidirt ist, mit kleinen Noten beigelegt.

(Six Sonatas for Violin Alone by Joh. Sebastian Bach. Studies or Three Sonatas for Violin Alone without Bass. For Use in the Leipzig Conservatory, Provided with Fingerings, Bowings and Annotations by Ferd. David. For those who wish to study this work, the original text, revised most exactly according to the original manuscript in the Royal Library in Berlin, is added in small notes.)³¹

Since David changed many of Bach's notations to make the pieces more "violinistic," he included what he intended as a critical edition of what he believed was the original text. However, Bach's autograph had not yet turned up, and David's edition is, in fact, based on both the 1802 Simrock edition and one of the manuscript copies listed earlier. Nonetheless, his edition, with its combination of a violinistically edited score and a version of Bach's score, became the model for several later editions by violinists. Among these is the 1908 edition (still widely used) prepared by the great violinist Joseph Joachim (1831–1907), who was the first violinist to make the solo works an important part of his concert repertoire and who recorded two movements from the cycle. Joachim's is the first edition to be based on Bach's autograph score, which had only recently surfaced, and it is the first edition to accurately reflect Bach's titles for the pieces: *Sonatas and Partitas for Solo Violin* (*Sonaten und Partiten für Violine allein*). Like David's edition, Joachim's, jointly prepared with the scholar Andreas Moser, included an edited violinistic version along with a rendering of Bach's autograph score. In the same tradition, Ivan Galamian's 1971 edition includes both his edited score and a facsimile of Bach's autograph.³²

The years between the 1843 David edition and the 1908 Joachim-Moser edition saw an increasing stream of publications, including one from 1865 edited by the important violinist Joseph Hellmesberger (1828–93),³³ one from 1879 edited by Alfred Dörffel (1821–1905) as part of the complete edition of all of Bach's music published by the Bach Gesellschaft (Bach Society),³⁴ and the first Italian edition from 1887, edited by Ettore Pinelli (1843–1915).³⁵ Several of these editions still considered the works

studies just as much as concert pieces. As late as 1906, an edition by Oskar Biehr (Leipzig: Steingräber) described them in his title “as Preparatory Studies for Playing in the style of Bach” (“... als Vorstudien für die Spielweise Bachs”).

The steady stream of new editions reached 27 by 1950 (as listed on p. 56 in the Critical Report of the *Neue Bach Ausgabe*), uninterrupted even by World War I: three new editions appeared in Western Europe in 1915 alone, two in Paris and one in London. The only significant interruption was the period 1935–50, probably due to the upheavals in Europe. (Nonetheless, this did not stop the German Nazi government from replacing the version edited by Joachim, who was Jewish, with a new and undistinguished edition in 1940 by Gustav Havemann published in Bonn by Bote & Bock, the same house that had published Joachim’s 1908 edition.)

These editions vary considerably in their fidelity to the Bach autograph (whose existence has been widely known since the Joachim-Moser 1908 edition) or copies, and in their violinistic proposals. Some include prefaces with performance instructions; some have no special annotations. Some make it clear that they have altered the original score for violinistic purposes; some do not. But all are of interest in reconstructing how the pieces have been heard and played since the nineteenth century. Representative excerpts drawn from these editions are discussed throughout this book.

Recordings

There is a long history of recordings of the solo works, dating back to the very first decade of the twentieth century, when Joseph Joachim in his last years recorded the *Adagio* of the G-minor Sonata and the *Bourée* of the B-minor Partita on wax cylinders and the great Spanish violinist Pablo de Sarasate (1844–1908) recorded the *Preludio* of the E-major Partita.³⁶ During the first half of the twentieth century, a recording of the complete cycle was considered a special achievement reserved primarily for those who had made a long career of playing the works. But in recent years, many young violinists have recorded the complete cycle as a way of launching their careers. Some of these recordings are discussed in the following chapters.

Arrangements

In addition to their history in editions and recordings, Bach’s solo-violin works have led a separate life in arrangements of various sorts.

We know that Bach himself doubtlessly made some of these arrangements, either extemporaneously or on paper, because Bach’s pupil J. F. Agricola wrote in 1774 that Bach “often played [the solo-violin pieces] on

the clavichord, adding as much in the nature of harmony as he found necessary."³⁷ Several arrangements of entire sonatas or of individual movements exist on manuscripts that date from the early or mid eighteenth century, although it is not clear in many cases whether the arrangement is by Bach himself.³⁸ The entire A-minor Sonata exists in an arrangement for cembalo in D minor (BWV 964), and the entire E-major Partita exists in an arrangement for lute or harp (BWV 1006a). The fugue from the G-minor Sonata exists in arrangements for lute (BWV 1000) and for organ in D minor (BWV 539). The opening movement of the C-major Sonata exists in a keyboard arrangement in G major (BWV 968). One arrangement that is definitely Bach's is his transformation of the E-major *Preludio* into an organ obbligato solo as the sinfonia to Cantatas no. 120a (composed in 1729?) and 29 (composed in 1731).

In addition to these eighteenth-century arrangements, there are nineteenth-century piano accompaniments by Mendelssohn and Robert Schumann. The circumstances that surround these accompaniments are not entirely clear. Andreas Moser implies that before 1844, when "the 13-year-old Joachim became the first to find the courage to play publicly Bach's violin solos in their original form," violinists were unsure that the works could be performed solo.³⁹ According to Moser, even the great violinist Ferdinand David, who published his own edition of them in 1843, "would not be moved by any fee whatsoever to step onto a stage with only a naked violin. Only when Mendelssohn surprised him one day with the accompaniment he had prepared for the chaconne did David declare himself ready for a performance in that company."⁴⁰ Seeming to confirm this is a glowing review by Robert Schumann of a performance in which Mendelssohn accompanied David in two movements from Bach's solo pieces (the *Chaconne* and an unknown other movement) during the winter of 1839–40 in Leipzig.⁴¹ However, in diary entries dated August 7 and September 20, 1836—over three years earlier—Schumann reports hearing David play either entire solo pieces or individual movements in Leipzig, at a time when Mendelssohn was touring elsewhere.⁴²

In any event, Mendelssohn published his accompaniment to the *Chaconne* in London and Hamburg in 1847. In 1853, Schumann published accompaniments to all six solo pieces.⁴³ New accompaniments to this *Preludio* (including Fritz Kreisler's accompaniment) continued to appear into the twentieth century.⁴⁴ Some of these arrangements were certainly performed in public. Moser reports on a performance in the 1880s by the Berlin Philharmonic under the baton of Joachim in which Lady Hallé (Wilma Neruda [1838–1911]) performed the *Preludio* to the E-major Partita with Bach's orchestration from Cantata no. 29 transposed back to E major. Moser also reports on an inaugural concert that celebrated the opening of a new building for the Berlin Hochschule in which Schumann's piano part accompanied no fewer than 40 student violinists playing the *Preludio* in unison.⁴⁵ But with the exception of use of Kreisler's arrange-

ment (probably as an encore piece), solo performances seem to have been the rule since the 1840s. Joachim always performed the solo works without accompaniment, setting the standard for performances of the works from then until modern times.

Even though they may not have been performed much in concert, Robert Schumann's accompaniments are important evidence of how a major nineteenth-century musician heard these works. Especially striking are the differences between how Schumann accompanied various movements and how Bach himself reworked or accompanied those same movements. As discussed in later chapters, Schumann's hearing of harmony, texture, rhythm, and form clearly differed from Bach's conceptions. Those differences provide us with an opportunity to recapture ways of hearing these pieces that go back before the advent of recording technologies.

TWO

The G-minor *Adagio*

The *Adagio* as a Prelude to the *Fuga*

The opening *Adagio* or *Grave* in all three solo sonatas is the prelude to the fugue that follows. Indeed, in the A-minor and C-major sonatas the opening *Grave* and *Adagio* are not even totally separate from their fugues because they end harmonically open. After a conclusive tonic cadence (m. 21, beat 3, in the A-minor *Grave*; m. 45, downbeat, in the C-major *Adagio*), additional music leads to an open-ended dominant chord. Even though the G-minor *Adagio* does in fact end with a strongly conclusive tonic cadence, it too forms a pair with the following fugue, not only because of musical connections between the movements (discussed in this and the next chapter) but also because Baroque-era fugues are almost always preceded by preludes of one sort or another—whether that preceding movement is called a *preludio*, a *preambulum*, a *toccata*, an *adagio* or *grave*, or something else.

Composers paired preludes and fugues for both aesthetic and practical reasons. Theorists in the Baroque period drew many of their images of musical structure from rhetoric—the art of verbal persuasion and the skill of organizing an argument to captivate an audience. In a well-made fugue, the composer coaxed the argument of an entire composition out of a single, often quite short, unaccompanied subject.

To do this effectively required mastery of difficult contrapuntal and compositional techniques. One could quip, “It’s hardly a great honor to compose a minuet,” as the student in a 1752 composition treatise brags at his first lesson.¹ In fact, musicians of the time published methods by which amateurs could “compose” a minuet or other dance—that is, create characteristic melodic lines above simple chords—even if they were totally ignorant of music.² No such methods existed to create a fugue’s web of independent parts that must project a musical idea if the result is to be more than a mere counterpoint exercise.

A fugue's dense musical argument was not to be thrown at an unprepared listener. Before a lone voice enters with a fugue subject, composers set the stage with a prelude that both prepares for the fugue—establishing the key and setting the range of instrumental color(s)—and is also a foil to the fugue. Next to the tight contrapuntal texture of fugues, preludes were often improvisatory (despite obvious exceptions, such as the E♭-major Prelude from the first volume of Bach's *Well-Tempered Clavier*, which itself contains tightly organized fugal passages, or the B-minor Prelude, which offers a complex trio-sonata texture). The prelude-plus-fugue pair forms an entity far greater in expressive and structural power than either movement by itself. Composers and performers—often the same person—could demonstrate their ability to be free in one movement and then create a tightly argued web of musical topics in the other. (This combination of freer and stricter music also occurs elsewhere in music of the time, as in the typical French overture, a genre institutionalized by Jean-Baptiste Lully [1632–87] half a century before Bach's *Well-Tempered Clavier* and solo-violin sonatas, in which the stately, often repetitive and rhapsodic outer sections frame a fugal middle section.)

The G-minor *Adagio* fits into this tradition of preludes—even of improvisatory preludes. A brief survey of one seemingly different type of Bach prelude makes both the improvisatory and prelude nature of the G-minor *Adagio* clear and opens our ears to another perspective on this piece.

One Type of Bach Prelude

Pattern-preludes

Many preludes, reflecting their origin as introductory music, imitate an improvisation. This is especially true when a prelude simply animates a series of harmonies by repeating one pattern over and over. The C-major Prelude that opens Bach's *Well-Tempered Clavier* is the epitome of such "pattern-preludes." The arpeggiation pattern in Example 2-1 recurs twice for each harmony until close to the very end. Other pattern-preludes from the *Well-Tempered*, such as that in C minor (shown in Example 2-2), are more varied with tempo and texture changes, imitating a more rhapsodic improvisation.

The *Adagio* of the C-major solo-violin sonata is yet another pattern-prelude. Using a very simple pattern—dotted-rhythm neighbor notes—it activates one or two notes of each harmony in what would otherwise have been a block-chord texture. (Indeed, a good way of learning to shape the larger chord progressions effectively in that *Adagio* is to practice it omitting all the neighbor notes.)

Example 2-1. J. S. Bach, Prelude in C Major, *Well-Tempered Clavier*, vol. 1, mm. 1–4 and their underlying harmonies.



The Underlying Harmonic Foundation

Whether its pattern is complex or simple, the overall coherence of a pattern-prelude depends on its underlying harmonies and voice leading. The arpeggiations in the C-major Prelude from the *Well-Tempered*, for instance, activate the chords shown in Example 2-1. These chords are no mere theoretical abstraction; Bach's nine-year-old son, Wilhelm Friedemann, notated the chords in an earlier version of this prelude just like this to save space when he copied that earlier version into his *Clavierbüchlein* (Little Keyboard Book), as shown in Figure 2-1. (Either Wilhelm Friedemann accidentally omitted some measures or Johann Sebastian decided to add additional chords, as the inserted chords in Figure 2-1 show.)

Wilhelm Friedemann's notational compression is one sample of what musicians of the time might write out for themselves or conceptualize mentally when they were to improvise a prelude to set the key and mood for a fugue, an aria, or another sort of piece. Bach's second son, Carl Philipp Emanuel, was probably simply reproducing his father's advice when he explained how to structure such an improvised prelude in his 1762 thoroughbass treatise: "A tonic pedal point [or cadential progression] is convenient for establishing the tonality at the beginning and end." For the body of the prelude, the bass should play "the ascending and descending scale of the prescribed key with a variety of figured bass signatures and perform the resultant progressions arpeggiated or chordally. . . . A dominant pedal point can also be introduced effectively before the end."³

As the bass sketch in Example 2-3 shows, the C-major Prelude from the *Well-Tempered* is (just as C.P.E. recommends) essentially a tonic cadential progression at the beginning (I–II⁴₂–V⁶₃–I) and a similar progression over a tonic pedal at the end (I^{b7}–IV–V⁷–I) "to establish the tonality at the beginning and end," a bass scale that descends through an octave "with a variety of figured bass signatures," and a dominant pedal "introduced effectively before the end"—with all these "resultant progressions performed arpeggiated."⁴

Example 2-2. Bach, Prelude in C Minor, *Well-Tempered Clavier*, vol. 1, mm. 1–4, beginning of *Presto* (mm. 28–29), and *Adagio* to the end (mm. 34–38).

The image displays a musical score for Example 2-2, which is a selection from J.S. Bach's Prelude in C Minor, *Well-Tempered Clavier*, vol. 1. The score is presented in three systems, each with a grand staff (treble and bass clefs).

The first system shows measures 1 through 4. The key signature is C minor (three flats). The time signature is common time (C). The music features a steady eighth-note pattern in both hands.

The second system begins at measure 28, marked *presto*. The tempo change is indicated by a double bar line and the word *presto*. The music continues with a similar eighth-note pattern, but with some chromatic alterations in the right hand.

The third system begins at measure 34, marked *adagio*. The tempo change is indicated by a double bar line and the word *adagio*. The music features a slower, more spacious feel, with the right hand playing a series of chords and the left hand providing a simple harmonic accompaniment.

The final system shows measures 35 through 38, marked *allegro*. The tempo change is indicated by a double bar line and the word *allegro*. The music returns to a faster tempo, with the right hand playing a series of chords and the left hand providing a simple harmonic accompaniment.



Figure 2-1. An earlier version of the Prelude in C Major from the *Well-Tempered Clavier*, as it appears in the *Clavierbüchlein vor Wilhelm Friedemann Bach*. The right-hand part is written in the soprano clef (as was the standard practice at the time). Some harmonies in this version differ from those in the *Well-Tempered Clavier*, and the rhythmic notation of the left-hand part differs from that of the final version.

Accomplished keyboardists (harpsichordists and organists) as well as players of plucked string instruments (lutenists, guitarists, and theorbists⁵) were expected to be able to improvise preludes in this manner. As a result, most eighteenth-century manuals on thoroughbass and composition—topics often discussed together—teach just that, mostly by offering bass scales and standard cadential progressions along with the chords that go

Example 2-3. Bach, Prelude in C Major, *Well-Tempered Clavier*, vol. 1, the underlying bass scale.

Frame Bass scale broken at $\hat{5}$ Prep. for Dom. pedal Frame

8 6 6 6 6 6 7 7 6 6 6 6 6 7 7 $\flat 7$ 7 $\flat 7$ 4 7 6 7 - $\# 7$ 8 7 - $\flat 7$ 6 7 8
 5 4 5 6 $\# 4$ 4 $\#$ $\# 4$ 4 4 4 4 4 4 3 4 4 3 $\flat 6$ $\flat 6$ 4 - 3 $\flat 7$ 4 5 5
 3 2 2 2 \flat \flat 2 2 2 2 2 2 3 4 4 3 2 4 3 2

with them. In 1716, just four years before Bach wrote the autograph score of his solo-violin works, the Parisian theorbist and guitarist François Campion (ca. 1686–1748) published for the first time what became the model for such bass scales: the *Rule of the Octave* (*Règle de l'octave*) or the harmonies used “as a rule” in harmonizing an octave scale in the bass (shown in Example 2-4).⁶ The *Rule*, printed in innumerable eighteenth-century thoroughbass treatises, taught beginning players to become familiar with common chords, with good ways of connecting these chords, with the various keys, and with improvising figuration over the chords of the *Rule* to create a prelude—perhaps not as sophisticated as the C-major Prelude in the *Well-Tempered*, but of the same nature.

Example 2-4. François Campion’s *Rule of the Octaves* (*Traité d’accompagnement et de composition*, insert between pp. 6 and 7). The chords in the right hand do not appear in Campion’s manual.

3 3 8 6 8 3 6 8 3 6 8 2 8 $\# 6$ 8
 6 5 6 5 5 6 5 6 4 5 6 6 6 4 5
 3 $\flat 3$ $\# 3$ 3 3 3 3 $\# 3$ $\# 4$ 3 3 3 3 3

8 6 8 6 8 3 6 8 3 $\# 6$ 8 2 8 6 8
 5 4 6 5 5 6 5 5 6 4 5 6 6 4 5
 3 3 3 3 3 3 3 3 3 3 4 3 3 3

The Pattern-preludes as a Group

All of the pattern-preludes in the first volume of the *Well-Tempered* are built like the C-major Prelude, with an opening and closing progression to set the key, one or more bass scales (like the *Rule*), and a dominant pedal before the end. Example 2-5 illustrates these underlying similarities and also indicates how each pattern-prelude is more complex than its predecessors.

The increasing complexity of these preludes is no accident. When J. S. Bach first composed them for Wilhelm Friedemann's *Clavierbüchlein*, he wrote pieces to teach his young son to play the keyboard, to discover how simple pieces are constructed, and to recognize musical genres. But when he revised the pattern-preludes for inclusion in the *Well-Tempered*, he was writing for his professional colleagues. Bach probably wished to demonstrate his prowess as a composer, as a keyboard player, and as an improviser. He began with the C-major Prelude—just about the simplest way a significant prelude could be built, but still more complex than the version in the *Clavierbüchlein* (which, as shown in Figure 2-1, has a much briefer dominant pedal than in the *Well-Tempered* and resolves that pedal to a final tonic chord, not a cadential progression over a final tonic pedal). The very next prelude, in C minor, has a more intricate pattern, varies that pattern more, and includes tempo and style changes to *presto*, *adagio*, and *allegro*. The D-major Prelude features a more extensive basic pattern and two octave scales, each with different harmonies. The E-minor Prelude combines techniques from all four of its pattern-prelude predecessors (two bass octave scales, as in the D-major Prelude, and the tempo changes, as in the C-minor Prelude) and adds a further new element: the improvisatory melody over the recurring pattern, as shown in Example 2-6—quite literally a new element, since it replaces unadorned right-hand chords in an earlier version in the *Clavierbüchlein*. In effect, Bach was not only demonstrating his prowess as composer, performer, and improviser—he was also displaying his skills as a composition teacher.⁷


The G-minor Adagio and the Pattern-preludes

The figured melody in the E-minor Prelude from the *Well-Tempered* resembles the melodic style of the *Adagio* of the G-minor Solo-Violin Sonata. Just as this melody in the E-minor Prelude rests on a descending bass scale, the *Adagio*'s even more elaborate and richly ornamented melodies also rest on typical preludelike basses: introductory and concluding cadential patterns and bass scales as in the *Rule of the Octave* and the *Well-Tempered* pattern-preludes. Indeed, the freely rhapsodic melody of the *Adagio*, with its improvisatorily sudden changes in rhythmic values, gains much of its expressive character precisely because its fancy is built on such commonly used paths.

a.

[illegible]

b.

0. 

c.

c.

Example 2-6. Bach, Prelude in E Minor, *Well-Tempered Clavier*, vol. 1, mm. 1–4.



The G-minor *Adagio* as a Prelude

The Underlying Bass Motions

Example 2-7 presents the *Adagio* along with the preludelike thoroughbass that is its basis. The opening two measures establish the key with a tonic–dominant–tonic cadential progression over a $\hat{1}$ – $\hat{2}$ – $\hat{5}$ – $\hat{1}$ bass—akin to the I–ii^[7](or IV)–V^[7]–I progressions that open each of the *Well-Tempered* pattern-preludes (shown in Examples 2-3 and 2-5). As in those preludes, the *Adagio*'s bass then presents a series of descending scales: $\hat{1}$ – $\hat{5}$ in mm. 3–4 and (after the bold bass skip by a tritone to C# leads the music into D minor) from G down to A through a D-minor scale in mm. 5–8. This low A initiates a *grand* or *closing cadence* (*Cadenz-Clausul*) in mm. 8–9—an elaborated dominant that moves to a tonic which, theorists of the time tell us, marks the end of a movement or a major division within a movement.⁸

The second section of the movement follows that D-minor cadence with several abrupt key changes, each featuring a weak or aborted cadence. Mm. 9–10 pass through G minor with a cadence weakened by an inverted dominant—a cadence reminiscent of mm. 1–2 because of its ending melisma and the return to the motto voicing of the G-minor chord. The B \flat later in m. 10 abruptly shifts the music into C minor and a similarly ornamented cadence in that key with extensive elaboration of the tonic. The A \flat and B \flat in the middle of m. 11 prepare another weak cadence, this time in E \flat major. The diminished-seventh chord on the downbeat of m. 13 aborts what would have been a stronger cadence in that key. The remainder of m. 13 returns immediately to C minor, preparing a strong cadential arrival on m. 14, where the section concludes.

Example 2-7. Bach, Sonata in G Minor for Violin Solo: (upper staff) *Adagio*; (lower staff) a figured-bass version of the movement.

The image displays a musical score for Example 2-7, consisting of five systems of music. Each system has two staves: an upper staff in treble clef and a lower staff in bass clef. The key signature is G minor (two flats: B-flat and E-flat), and the time signature is common time (C). The upper staff is labeled *Adagio* and features a violin solo with various ornaments (trills, marked 'tr') and slurs. The lower staff is a figured-bass version, showing the harmonic structure with figured bass notation (numbers 1-7, sharps, and flats) and some accidentals. The systems are numbered 1, 3, 5, 7, and 9 on the left margin. The notation includes complex rhythmic patterns, slurs, and trills in both staves.

Example 2-7. (continued)

10

11

13

14

15

Example 2-7. (*continued*)

The musical score for Example 2-7 (continued) consists of three systems of music, each with a treble and bass staff. The key signature is one flat (B-flat), and the time signature is 3/4. Measure numbers 17, 19, and 21 are indicated at the start of their respective systems. The notation includes various musical symbols such as notes, rests, slurs, and fingerings. A trill (tr) is marked in measure 21. The bass staff contains several rests and fingerings, including a 7-measure rest in measure 17 and a 6-measure rest in measure 21.

The *Adagio*'s last section is essentially a transposition down a fifth of the opening nine measures. Since mm. 1–9 move from the tonic to the dominant (G minor to D minor), mm. 14–22 move from the subdominant to the tonic (C minor to G minor). Some measures feature quite similar figuration. But other measures, especially at the beginning and the end (mm. 1–2 vs. 14–15 and mm. 7–9 vs. 20–22), offer quite different melodies and melodic rhythms.

Some Performance Implications of This Perspective

Considering the *Adagio* as a prelude built on standard thoroughbass motions diametrically opposes a common view of this movement among violinist-editors. They emphasize melody as the driving force by renotating Bach's multiple-stops, making the lower notes mere support for the melody, as shown in Example 2-8 (which should be compared with Bach's notation in Figure 1-1). The influential Joachim-Moser edition goes even further, recommending "practic[ing] these passages singly and without double-

Example 2-8. *Adagio* from the Sonata in G Minor, mm. 1–2: (a) Joachim and Moser edition (1908); (b) Leopold Auer edition (1917); (c) Flesch edition (1930).

a.



b.



c.



stopping, until the melody is so impressed upon the player that it is no longer disturbed in its flow by the chords when they are introduced,” as Example 2-9 shows.

These views reflect Classical-era and nineteenth-century notions of melody and texture that continue to dominate twentieth-century attitudes toward this movement—and toward Bach’s music in general. The earliest composition treatises dealing with the music that we today call the Classical style—by Joseph Riepel (1709–82) and Heinrich Christoph Koch (1749–1816)—explained compositional processes through examples that show only melodic lines.⁹ Baroque approaches to composition, by con-

Example 2-9. *Adagio* from the Sonata in G Minor, mm. 1–2, explanatory example from Joachim-Moser edition, foreword.



trast, concentrate on building pieces from the bass, as in *Der Generalbass in der Composition* (Thoroughbass in Composition) by the Dresden composer Johann David Heinichen (1683–1729) and in Bach's own composition teaching, in which students became proficient in thoroughbass before learning to vary the resulting progressions. Friedrich Erhard Niedt taught composition in just this way in Bach's favorite thoroughbass treatise.¹⁰ The variety among the *Well-Tempered* pattern-preludes that are built upon similar thoroughbasses—especially the way Bach transformed the E-minor Prelude from a simple pattern-prelude composition into a composition with a rhapsodic melody—shows how this spirit permeated Bach's musical imagination as he composed the G-minor *Adagio*.

Thinking of the *Adagio* as a prelude built upon standard thoroughbass patterns can actually enhance violinists' expression of the melody. The melody is then heard not so much as a series of fixed gestures, but rather as a continuously unfolding rhapsodic improvisation over a supporting bass.

Consider how the opening of the third section of the movement (mm. 14–15) relates to the very beginning. Bach could have simply literally transposed mm. 1–2 up a fourth to become mm. 14–15. But in such a mechanical transposition, the passage would have lacked the timbral depth that the numerous open strings create in mm. 1–2. Bach was not interested in a melodic recapitulation. Instead, he created new music over the returning thoroughbass—music appropriate to its placement within the structure of the movement. After all, the music in mm. 14–22 comes after the music in mm. 1–9. Here, as in much of his music, when Bach brings back an earlier passage, he makes the recurring music more elaborate than the first statement, heightening the level of activity in a variety of ways.

Mm. 1–2 are the first music of the sonata, announcing the key of the *Adagio* (and of the sonata as a whole) by emphasizing a particular voicing of the G-minor tonic chord as a “motto” sonority for the entire sonata (as the beginning of chapter 1 discusses). When the cadential progression from mm. 1–2 recurs in mm. 14–15 in C minor, the local key is not the tonic of the movement, C-minor chords are not “mottos,” and the progression no longer needs the rhetorical flourishes of beginning and ending with a full chord with the tonic on top.

Bach takes advantage of all these circumstances in mm. 14–15. The music now grows from a single line to multiple-stops, creating greater textural activity within the phrase than in mm. 1–2. The melismatic melody, which in mm. 1–2 spans only an eleventh and ends in an inner voice, in mm. 14–15 expands to range over two octaves to end in the soprano. The music is more dissonant, especially when A \flat in m. 15 momentarily transforms the dominant seventh into a more highly charged dominant minor ninth.

Hearing the increasingly rhapsodic figuration of mm. 14–15 over the same bass as mm. 1–2 suggests that the common way of performing the multiple-stops and melody here—playing the low notes quickly before the beat and focusing on the melody—downplays many important bass

Example 2-10. *Adagio* from the Sonata in G Minor, mm. 1–2, one way of performing the chords.



line connections and detracts from the improvisatory sense of the melody. David Boyden, a historian of early violin playing, argues that the modern way of breaking quadruple-stops 2 + 2 is never mentioned as a performance option in the early eighteenth century; he suggests that eighteenth-century violinists sometimes played quadruple-stops by lingering on the bass, followed by a quick arpeggiation to the top.¹¹ Bach's method of notating multiple-stops with each note stemmed separately and his habit of writing some multiple-stops in an unperformable manner, with notes sustained so that fingers are not available for other notes, actually invite such improvisatory freedom. For instance, right on the first beat of m. 2, it is impossible to hold the F# for a full quarter note and have a finger available to play the Bb.

I can imagine practicing the opening phrase by sustaining the bass notes in tempo and imagining the music above, then slowly rolling the chords after lingering on the bass notes, once again only imagining the melismas. Combined with the usual ways of practicing the melody without the chords (as the Joachim-Moser edition recommends), this will suggest to violinists individual ways of balancing the melody and chords of the *Adagio* with the improvisatory nature of a prelude to a fugue. Example 2-10 offers such an approach to mm. 1–2. The bass line projects with unexcelled clarity, and the continuity of melody need not be compromised. The music gains an aura of improvisatory preludelike freedom that is missing from most performances I have heard, and the result relates the opening more closely to the return in m. 14—especially on the third beat.

The *Adagio*'s Rhetorical Shape

The features that the *Adagio* shares with other pieces of its time—standard thoroughbass motions as the basis of an improvisatory prelude that precedes a fugue—help us to understand how it made musical sense to Bach and his contemporaries. But the *Adagio* is more than an example of the common procedures of its age. It is a unique creation that has long inspired musicians and audiences. Bach assembled its conventional features in a particularly effective order, worked in various sorts of motives to re-

late the individual parts to one another, and animated the whole so that the overall shape becomes increasingly interesting as it proceeds.

The Arrangement of the Sections

Table 2-1 outlines the sections of the movement shown in the thorough-bass that underlies Example 2-7 and was discussed previously. When laid out in this manner, the movement seems to resemble sonata form, with three sections that roughly correspond to an exposition (mm. 1–9, which modulate to and cadence in the dominant), a development (mm. 9–13, which modulate rapidly and develop previous materials), and a recapitulation (mm. 14–22, which restate the themes of the exposition so as to end in the tonic key). But the essence of this *Adagio* differs considerably from sonata form. In Classical sonata form, the whole point of the exposition's move from the tonic to the dominant is to set up a polarity or contrast that needs to be resolved toward the end of the movement. Thematic and textural contrasts and dramatic changes in the quality of activity from sections where themes are presented to transitional or closing sections reinforce that tonal polarity. But the G-minor *Adagio* lacks any major thematic or textural contrasts.

Similarly, the whole point of the development section in many Classical-era sonata forms is to prepare a dramatic return of the tonic key and the first theme to begin the recapitulation (what James Webster calls the *double return*¹²). To impart a strong sense of arriving home on the tonic, many developments move to distant tonal areas and change keys frequently and abruptly. And to contrast with the reentry of the first theme at the beginning of the recapitulation, development sections frequently take apart the exposition's themes or introduce new ones. Once again, such features are irrelevant to Bach's *Adagio*. Since the "recapitulation" in m. 14 does not begin in the tonic key, the purpose of the modulations during the "development" cannot be to prepare for a tonic arrival. And since the "first

Table 2-1: Formal Outline of the *Adagio* of the G-minor sonata

Measures	Keys	Description
1–9=9	i → v	Modulation to v at m. 5; important cadence in v in m. 9
9–13=4	→ i → iv → VI → iv	Rapid modulations without strong cadences; a well-prepared cadence in VI at m. 13 aborted by enharmonic change and return to iv
14–22=9	iv → i	Transposition of mm. 1–9 with new figuration

theme” in mm. 14–15 is so different texturally and figurally from how it appeared in mm. 1–2, there is no strong sense of thematic arrival on m. 14. And the thematic “development” continues throughout the third section of the *Adagio*.

In short, the dynamic and dramatic formal processes that drive music of the Classical period and that have for generations been enshrined in theories of musical form fail to explain this *Adagio*. If we are to understand what motivates this movement, we must look elsewhere than to theories of form that were developed in the nineteenth century to explain Classical-era music. Two aspects of musical structure touched upon above provide helpful hints: the related continual intensification of various aspects of structure that underlies innumerable Bach compositions and the art of rhetoric that provides the context within which Bach composed.

Heightened Activity as a Compositional Principle

A previous discussion shows how mm. 1–2 recur in mm. 14–15 with greater activity in melodic span, in textural changes, and in dissonance level. Similar changes intensify most of the recomposition of mm. 1–9 as they recur to form mm. 14–22. Especially pronounced is the harmonic, melodic, and rhythmic intensification of the final cadence. The diatonic supertonic chord of m. 7 (B \flat /D/E/G) recurs in m. 20 as a chromatic Neapolitan (C/E \flat /A \flat), arpeggiated with nonharmonic tones to include a dramatic augmented second (A \flat –B) as the end of the measure sweeps through the entire registral range of the movement from its lowest note (the open G string) to its very highest (B \flat in m. 21). The diatonic dominant pedal of m. 8 recurs in m. 21 as a chromatic C–C \sharp –D approach to the dominant, beginning with the D 7 chord in its most dissonant third inversion and ending with a hair-raising mixture of A and A \flat in the melody. The predominantly thirty-second-note motion during the grand cadence in mm. 7–8 is replaced in m. 21 with a swirl of sixty-fourths spiced up by a pair of 128th notes. (Surprisingly, many violinists take such a huge ritard at the end of m. 21 that the pace of the sixty-fourths is that of thirty-seconds earlier in the movement, enervating instead of energizing the final gesture of the movement.)

Such heightened intensity characterizes recurring or reworked music throughout Bach’s compositions. Indeed, heightened intensity is the key to understanding the difference between “form” as it exists in this music and form as it exists in music of the Classical and Romantic eras.

The Influence of Rhetoric

In the Baroque era, as had been the case for all earlier periods, the overwhelming majority of Europeans were illiterate, with formal education reserved for the relative few whose social or professional status demanded

it. Such education did, of course, stress literacy. But it also continued to emphasize control over spoken language—rhetoric—to a much greater degree than we do nowadays. The art of rhetoric had been much admired in ancient Greece and Rome and was revived in the Renaissance by the rediscovery of ancient Latin treatises on rhetoric, especially the *Institutio oratoria* by the Roman author Marcus Fabius Quintilian (ca. A.D. 35–95).¹³ For generations, many German church musicians (including J. S. Bach) held positions that combined their musical work—especially composing and performing—with teaching. They were responsible for training boys for choirs (which entailed teaching musical rudiments, sight-singing, and elementary knowledge of other musical subjects) and also for teaching Latin and related subjects, including rhetoric.

In 1606, Joachim Burmeister (1564–1629), who was a cantor at St. Marien, the principal church in the northern German seaport of Rostock, from 1589 to 1593 and then taught at Rostock University, described the motet *In me transierunt* by Orlando Lassus (1532–94) in terms of rhetorical devices. For Burmeister, Lassus's setting of the text was exemplary because of how its musical devices were comparable to a first-rate oration.¹⁴

A century later, Bach worked in a similar position to Burmeister. In Leipzig from 1723 until his death, Bach had responsibilities at both the Lutheran Thomaskirche (St. Thomas Church) and the adjacent Thomaschule (St. Thomas School). He had to compose music for church services, prepare the music for performance, and teach music, Latin, and related subjects in the school.¹⁵

For Baroque musicians, musical compositions were akin to orations. Both had to state an idea and develop that idea; neither should bring in extraneous, unrelated matters. Both should grab and hold the audience's attention; more exciting forms of the ideas (or conclusions in an oration) should occur strategically to reawaken any lagging attention. Bach's contemporary Johann Mattheson stressed rhetoric in many of his writings, especially in his 1739 composition treatise *Der vollkommene Capellmeister* (The Complete Capellmeister). Always trying to be both practical and witty, Mattheson reminded his readers to order their compositions effectively by following "the clever advice of the orators in offering the strongest points first; then the weaker ones in the middle, and, finally, convincing conclusions. That certainly seems to be the sort of trick which a musician can use."¹⁶

The Motivic Glue

The influence of thinking of musical compositions as orations is apparent in the large-scale structure of the G-minor *Adagio* as recurring sections are intensified (e.g., mm. 1–9 returning transposed as mm. 14–22 and the end of m. 9 returning transposed to end m. 10). The musical argu-

Example 2-12. *Adagio* from the Sonata in G Minor: (a) m. 2; (b) same, if transposed directly into C minor; (c) actual figuration of m. 15; (d) m. 9.

a.

b.

c.

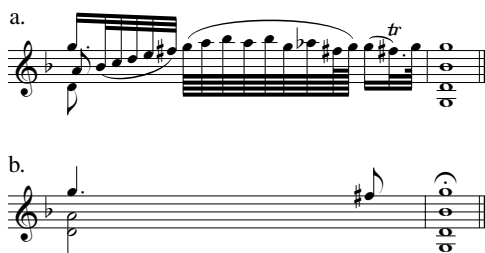
d.

moved to C minor—unlike the same $E\flat$ – D – $A\flat$ – G in mm. 11–12 in the same register, which was entirely within the key of $E\flat$. Like the high $A\flat$ – G in mm. 11–12, the resolution in m. 13 is decorated, but this time in an intensified manner by the chromatic double neighbors $A\flat$ – G – $F\sharp$ – G .

These prominent $A\flat$ – G motions continue into the final section of the movement. Thus, when m. 2 (shown in Example 2-12a) recurs transposed to C minor in m. 15, Bach, instead of simply transposing the figuration (as in Example 2-12b), created a dominant ninth by including $A\flat$ – G (as in Example 2-12c). This is not a new idea, however, since m. 9 (which is similar to m. 2) already has that dominant ninth (shown in Example 2-12d).

Such multiple references to music from various places in the movement pervade mm. 14–22, intensifying the musical expression. Many of these references include the note $A\flat$ —often juxtaposed with $A\sharp$ —even after the key change to G minor. Thus the Neapolitan chord in the upbeat to m. 18 is voiced so that high $A\flat$ stands in a cross-relation with an immediately following $A\sharp$ in the lower voice and is followed by a high $A\sharp$ just two sixteenths later. (The extent to which Bach focuses attention on $A\flat$ / $A\sharp$ emerges clearly by comparing the upbeat to 18 to the equivalent cross-relation

Example 2-13. *Adagio* from the Sonata in G Minor: (a) mm. 21–22; (b) underlying voice leading.



$E\flat$ – $E\sharp$ on the upbeat to m. 6. In the earlier passage, Bach simply omits $E\sharp$ from the immediate context; $E\flat$ vs. $E\sharp$ is not a big issue in this movement, whereas $A\flat$ vs. $A\sharp$ defines the difference between the two main keys of the movement, G minor and C minor.)

The boldest insertion of $A\flat$ appears just before the end of the *Adagio*, as the downward pull of the 4–3 suspension G – $F\sharp$ is intensified into a G – $[B\flat$ – $A\flat$ – $G]$ – $F\sharp$ motion above (akin to the way Bach adds ninths to dominant chords in mm. 9 and 15), as shown in Example 2-13. This sums up many of the $A\flat/A\sharp$ interactions and almost seems to bring $A\flat$, a note properly belonging to the key of C minor, into the key of G minor. Strikingly, there is no $A\sharp$ after this $A\flat$.

This veritable merging of C minor into G minor is central to the structure and expressiveness of the entire *Adagio*, in that the opening G-minor music in mm. 1–4 returns in C minor in mm. 13–16 and because the key of C minor is prominent in the middle section of the movement. And the merging of these two keys resonates throughout the remainder of the sonata. For instance, Bach constructed the subject of the second-movement fugue so that it requires an answer in the *subdominant*, not in the usual dominant, as do almost all fugue subjects. (As an instance of how rare a subdominant fugal answer is, note that such an answer is totally absent from the 48 fugues of the two volumes of the *Well-Tempered Clavier*.)

Some Other Motives

A number of other motives join $\hat{8}$ – $\hat{7}$ – $\hat{4}$ – $\hat{3}$ to resonate through the *Adagio*. The descending scale on the second beat of m. 1, for instance, seems at first like a mere connection from the high G to the low G in the basic $\hat{8}$ – $\hat{7}$ – $\hat{4}$ – $\hat{3}$ motive. But Bach makes this more than just any ordinary octave scale by inserting the sixty-fourth-note turn-around at the end. This foreshadows numerous similar melisma endings throughout the move-

Example 2-14. *Adagio* from the Sonata in G Minor: (a) mm. 1–2 and underlying voice leading; (b) m. 6 and underlying voice leading; (c) m. 19.

a.

b.

c.

ment, right up to the 128th notes that conclude the sixty-fourths of the penultimate measure. The turnaround in m. 1 also allows Bach to have his cake and eat it too: he can present both the complete G–G octave scale (bringing the high G of the basic motive down an octave) and a G–A descent (before the turnaround). That G–A descent foreshadows the slow thoroughbass descent that underlies mm. 5–8 (shown in Example 2-7b).

The turnaround also generates innumerable little details that illuminate larger connections throughout the movement. Consider mm. 6–7 in relation to mm. 1–2, shown in Examples 2-14a and 2-14b. Amid all the other details of these measures, the way mm. 6–7 recompose mm. 1–2 might pass unheard. But when the passage returns in G minor in m. 19, Bach inserts the crucial turnaround (circled in Example 2-14c), literally recalling mm. 1–2 and helping thereby to ground the closing measures in G minor.

This discussion just touches on a few appearances of some of the more prominent motives in the *Adagio*. By exploring the analytical examples (especially Example 2-11) and by pursuing the similarities and differences among each of the motives and among each of the melismas, a violinist can delve deep into the heart of this movement and unearth the innumerable ways each motive and melisma contributes to the expressiveness of this remarkable movement.

Performance Considerations

What are the implications of hearing the *Adagio* of the G-minor sonata as a rhetorical composition built like a prelude from a thoroughbass? A few issues are discussed earlier in this chapter, especially concerning multiple-stops (in connection with Examples 2-8 through 2-10) and rubato (in connection with the 128th notes in the penultimate measure). Some more general remarks are in order here.

Multiple-Stops

Bach invariably notates each voice in chords with a separate stem, often writing different rhythmic values for the various notes in multiple-stops. Thus, on the downbeat of m. 1, the three lower notes are quarter notes while the top note is a quarter plus a thirty-second; and on the downbeat of m. 2, the bass D is an eighth note, the soprano F# is a quarter note, and the middle-voice C is an eighth plus a thirty-second. Such notations seductively suggest that the rhythms might actually be performable. And many violinists do attempt wherever possible to hold notes in multiple-stops exactly as long as Bach notated them. For instance, Joseph Szigeti and Yehudi Menuhin hold the B \flat in the first chord exactly a quarter note (after breaking the chord 2 + 2).¹⁷ But as already noted, even a cursory study of the score makes it clear that Bach's notated rhythms frequently cannot represent an actual performance, no matter what sort of bow or bowing technique one believes that Bach had in mind. On the first beat of m. 2, for instance, if the first finger remains occupied for the notated quarter-note duration playing the F# there is no finger available to play the A-string B \flat .

Especially considering the improvisatory nature of the *Adagio*, it is highly likely that Bach had in mind a freer sort of performance than the way the pieces are usually played—perhaps a manner of performance more along the lines of what is illustrated in Example 2-10. My point in introducing that example is not to claim any sort of historical authenticity for that particular rendition, but to suggest how violinists can free themselves from twentieth-century traditions and open their ears and musical imaginations to new options. The individual expression each violinist will bring to this movement is probably more in line with what Bach had in mind for such an improvisatory prelude.

Rubato

Modern performance styles accept rubatos on the slow side of the basic tempo. And, in fact, many recorded performances of the *Adagio* feature rubatos that slow down the tempo quite noticeably, especially when the

note values speed up, such as in the *Adagio*'s last measure, whose sixty-fourths and 128ths are often stretched out considerably. In Joseph Szigeti's 1946 recording, for instance, the last beat of the penultimate measure lasts as long as the first three beats of that measure. Nathan Milstein's 1973 recording likewise begins the sixty-fourths in the penultimate measure at pretty much the pacing that Milstein had used for thirty-seconds before.¹⁸

But rubatos faster than a movement's basic tempo have been frowned upon in recent decades as "rushing." Robert Philip, in his classic study of early recordings, presents convincing evidence that this bias against rubatos over the basic tempo is a twentieth-century concern.¹⁹ Of course we cannot conclude from early-twentieth-century recordings how musicians might have performed in the early eighteenth century. But it is highly likely that in the ages before metronomes were common there was more flexibility of tempo than we are used to today, both on the beat level and on the measure level. Joseph Joachim's early-twentieth-century recording of the *Adagio* certainly does quicken the tempo above that of the first few measures in various passages.

By contrast, most recorded performances by twentieth-century violinists tend to keep a virtually metronomic tempo throughout, such as Jascha Heifetz's and Yehudi Menuhin's 1935 recordings.²⁰ The same is true of many more recent violinists, whether they play on modern instruments or period instruments. Recordings in the 1980s by violinists as markedly different as Gidon Kremer, Itzhak Perlman, and Jaap Schröder generally keep a fairly constant beat throughout the *Adagio*, despite other considerable differences between their interpretations.²¹ In terms of tempo, Schröder differs from Perlman and Kremer primarily by playing most of the melismas rather gesturally and with some local freedom within a fairly strict larger beat.

Just as experimenting with various means of negotiating the multiple-stops will lead to new perspectives on creating improvisatory performances, exploring rubatos will open new vistas on performance. Crucial notes—whether members of the $\hat{8}-\hat{7}-\hat{4}-\hat{3}$ motive, participants in the $A\flat/A\sharp$ juxtapositions, or surprising chromaticisms like the $D\flat$ in m. 12—may be anticipated or delayed. And each splendidly idiosyncratic cadential evasion in the *Adagio*'s middle section may receive its own temporal adjustment. Joachim's recording is considerably freer in tempo than any other commercial recording I know—taking a faster tempo for entire passages and pushing ahead or pulling back at various points. I do not recommend copying his individual approach any more than I recommend adopting a strictly metronomic approach. But it seems to me that the satisfying qualities of Joachim's performance indicate that it by no means stands at the limit of tasteful renditions.

In short, there is much room to develop new perspectives on the *Adagio*—perspectives that accord with early-eighteenth-century ideas about improvisatory preludes, about pieces built up from a thoroughbass, and about pieces that are rhetorical in nature.

Notes on the Autograph Score

Chapter 1 uses Bach's autograph score of the *Adagio* (in Figure 1-1) to introduce various aspects of Bach's notational practice. Those points need not be repeated here. But several notations merit discussion, either because they are ambiguous or because they raise interesting issues. The most immediate practical concern is Bach's slurring.

Slurs

As chapter 1 discusses, Bach's intended positioning of the beginning and end points of slurs is not always entirely clear. The very first slur of the movement, for instance, seems to extend only to B \flat , not all the way to G. But it is inconceivable that Bach intended a separate bow for the sixty-fourth-note G, even though elsewhere he more clearly marked the end of other slurs. At the very end of m. 7, for instance, he appended a "hook" to the end of the slur to make sure that it went to the end of the measure while avoiding the eighth-note rest already in place on the staff above.

More difficult to decipher are slurs over various sixteenth-note groups. For instance, in m. 4, beat 3, is the slur intended to cover two or three notes (i.e., does it begin on D or on F \sharp)? This particular case is difficult to decide, because there are no other passages in the movement that have precisely the same figure. Other cases where a figure occurs only once in the movement and where the extent of the slur is ambiguous are:

m. 5, beat 1: Does the slur begin on the A string or on B \flat ?

m. 5, beat 3: Does the slur cover F–D or D–E \flat ? Comparison with Bach's notation of the first beat of m. 3 suggests that the slur covers F–D.

m. 10, beat 1: Did Bach intend no slurs on the entire beat? If so, it would be the sole place in the movement where consecutive thirty-second notes are unslurred—which does not settle the issue either way, since he might have intended separate notes or he might have assumed that a violinist would add a slur automatically.

m. 13, beat 4: Are G and E \flat unslurred?

m. 16, beat 3: The B \flat does not seem to be under the slur, but it is likely that it should be.

m. 16, beat 4: The first F does not seem to be under the slur, but it is likely that it should be. The written-out *Nachschlag* (after turn) of the trill at the end of the beat is more troublesome since the energy of the passage might signal separate bows that lead into the next downbeat. But other written-out *Nachschläge*, in mm. 2, 4, and 9, are covered by the slurs.

m. 17, beat 3: The last slur clearly covers A \flat –G. But what is in-

tended to be covered by the first slur: all four thirty-seconds, three of them, or just two?

A Questionable Note

There has been some question concerning whether the downbeat of m. 19 should be a triple-stop with the open D string as the bottom note or a double-stop with the open A string as the bottom note. There is indeed a mark where “D” would be in Bach’s autograph score. The Joachim-Moser edition includes this open D string in its transcription of Bach’s score but omits it from the edited violin score. This seems to have led some violinists, such as Itzhak Perlman, to play the D.

But the mark is surely a sixteenth-note flag for the open A string. If it were meant to indicate the D string as part of a double-stop D/A, it would be the sole instance in the entire autograph score where a single stem connected two separate voices. (In addition, if the bass note were D, it would detract from the descending bass scale, which announced the C two beats earlier on its way to B \flat on the next beat.)

Performing the Rhythmic Notations

Overdotting

There has been a lot of discussion in recent years concerning whether dotted rhythms in early-eighteenth-century music should be performed as notated or whether the dotted note should be extended and the following short note shortened. Although scholars and performers differ on the details, there seems to be a consensus that applying such rhythmic alterations differed from place to place, from style to style, and from generation to generation. A recent study on the topic by Stephen Hefling provides evidence that J. S. Bach knew of the practice and even added overdotting when he rewrote his keyboard overture (BWV 831). Furthermore, Hefling notes that Johann Philipp Kirnberger (1721–83), who studied composition with Bach around 1740, “advocates overdotting of overtures and loures and upbeat contractions in overtures.” But Hefling urges considerable caution in applying these practices to all of Bach’s music.²²

Dotted rhythms in the *Adagio* of the G-minor Sonata occur primarily at cadences (such as the ends of mm. 8 and 21) or imitations of cadences (such as m. 2, beat 2; m. 5, beat 1; or the end of m. 12). There are notated trills in all these cases and often melismatic writing in the immediate vicinity—all of which suggests that the violinist consider employing a degree of improvisatory freedom appropriate to the cadence, which might well include extending the dotted note and shortening the following note. Other dotted rhythms in the *Adagio* initiate some melismas (as in m. 21, beat 3).

Here I find little reason to shorten the note that follows the dotted note (other than exercising some improvisatory freedom in playing the entire melisma).

Notes inégales

As with overdotting, it seems clear that for some styles of early-eighteenth-century music, evenly notated passages with pairs of notes under slurs were often played with a lilt by extending notes on the beats and shortening the notes following the beats, a practice known as *notes inégales* (unequal notes). This seems to have been mandatory for French-style pieces and for some dance types. But the *Adagio* is far removed from those styles and genres. Nonetheless, in his recording of the *Adagio* made shortly after the turn of the century, Joseph Joachim plays several even-note passages in the *Adagio* in a distinctly uneven manner (especially the last beats in mm. 5 and 18). Is his performance evidence of a practice of *notes inégales* lingering into the nineteenth century?

The Other Prelude Movements in the Solo-Violin Works

The two other sonatas and the E-major Partita also have opening preludes. Of these movements, the A-minor *Grave* is closest to the G-minor *Adagio* in texture, structure, and expression, which suits its role as a prelude to a fugue with similar rhythmic characteristics and expression as in the G-minor Sonata. The arrows in Example 2-15 highlight the sections transposed down a fifth, akin to the similar transposition of the opening section to form the conclusion of the G-minor *Adagio*. In the A-minor *Grave*, the opening music of mm. 1–3 recurs transposed down a fifth to the subdominant key in mm. 14–16, and the music in the dominant in mm. 9–12 recurs transposed down a fifth to the tonic in mm. 19–21. Also as in the G-minor *Adagio*, these recurring passages recur with heightened activity. But unlike in the G-minor *Adagio*, these transpositions in the A-minor *Grave* do not comprise the entire opening section of the movement. Instead, various other portions of the movement—including all the music in C major (mm. 3–7) and the connecting and concluding passages (mm. 7–9, 16–18, and 21–23)—do not recur. In addition, instead of the cadential and scalar bass motions that characterize almost the entirety of the G-minor *Adagio*, a much wider variety of bass motions underlies the A-minor *Grave*. The result is a more complexly constructed prelude to the following Fugue. Just as Bach constructed the pattern-preludes in the *Well-Tempered Clavier* so that each is more complex than its predecessors, he ordered the G-minor and A-minor sonatas so that the simpler of these two similar opening movements occurs first.

Example 2-15. *Grave* from the Sonata in A Minor: the underlying thorough-bass.

A min.: half cadence C maj.: A min.:
 1 2 3 4 5 6 7
 4 (6) 6 6 5 # 5 5-6 6-b5 5-6-4 6 6-5 #6-b6 6 #6 6 4 5
 ↑ transposed ↓
 (D min.:) cadence A min.:
 14 15 16 17 18
 4 6 #6 6 5 # 6 6 # 7-6 #6 8-7
 2 3 4 5 6 7 3 #
 ==
 E min.: A min.: D min.:
 8 9 10 11 12 13
 5-#6 7 #5 #5 7 #4 #6 6 7 # #6 6-#5 #4 2 6 7
 ↑ transposed ↓
 cadence
 19 20 21 22 23
 #6 7 #4 #6 6 7 7 6 # 6 7-6 #6 #
 b7 2 5 # 4 # 6 6 4 # 6

Quite surprisingly, the *Prelude* of the E-major Partita, despite its totally different tempo, texture, and affect, shares many larger structural features with the opening movements of the G-minor and A-minor sonatas. As in both of those movements, there is a large-scale transposition down a fifth of the opening material, as shown by the italicized lines in Table 2-2. Chapter 1 already notes that the key of E major, where the lowest tonic note lies a major sixth above the lowest note on the violin and where the tonic is the highest open string on the violin, promotes the brighter end of violin sonorities. The various open E-string and open A-string pedals promote that timbral range—again making it a fitting prelude to the French-style dance movements that follow. The fanfare character of the opening and some later passages were probably the features that suggested to Bach that he could turn this movement into a concertolike solo in the sinfonia that precedes two cantatas. Chapter 5 discusses these arrangements.

The *Adagio* of the C-major Sonata is closer to the *Well-Tempered* pattern-preludes (discussed earlier in this chapter) than to the opening slow movements of the other two violin sonatas in the sense that much of it largely features a recurring neighbor-note motive that activates harmonies pre-

Table 2-2: Formal Outline of the *Preludio* of the E-major Partita. Parallel sections are side by side; new sections are on separate lines.

Mm.	Key	Description	Mm.	Key	Description
1–8=8	I	introductory fanfare	59–78=20	IV	<i>transposed</i>
9–28=20		<i>tonic pedal + sequence</i>	79–100=22	→ ii	recomposed & extended
29–37=9	→ vi	modulatory sequence	101–108=8		<i>recomposed, more chromatic</i>
38–50=13		<i>dom. pedal + cadence</i>	109–138=20	→ I	to dom. pedal and tonic cadences
51–58=8	→ IV	modulatory sequence			

dominantly changing at the stately pace of one chord per measure. But even though this is a simple pattern and even though the movement as a whole is built in the largest sense on a very simple tonic–dominant–tonic framework, the complexity of the harmonies and the intensity of the chromaticism are much greater than in almost all the other movements in the solo-violin works. This makes this intense, brooding, and dark-hued movement a fitting prelude to the extremely long fugue that follows—a fugue based on a chorale-derived subject with an immediately chromatic countersubject.

Example 2-16 shows the *Adagio*'s simple underlying harmonic frame: a bass scale that leads from the tonic to a grand cadence on the dominant (mm. 1–15), a dominant pedal (mm. 31–44), and a transposition of the grand cadence to the tonic (mm. 43–44). But numerous complex and even mysterious harmonies interrupt this relatively simple framework. After three measures that suggest the opening of the C-major Prelude from the *Well-Tempered* (I–ii₂⁴–V₅⁶), the inverted half-diminished-seventh chord over B \flat in m. 4 initiates an intense harmonic digression to ii and then a wildly chromatic neighboring motion around that bass D (including an enharmonic change of a diminished-seventh chord in m. 10 that wrenches the music from E minor to G minor) before D finally turns into the dominant of the dominant and cadences on G—but only after a rhapsodic interruption of that D dominant. The quality of the chromaticism, the en-

Example 2-16. *Adagio* from the Sonata in C Major: the underlying motions.



Example 2-17. *Adagio* from the Sonata in C Major, violin and keyboard versions (with keyboard version transposed to C major): (a) mm. 2–3; (b) mm. 13–14; (c) mm. 33–34.

a.

violin:

keyboard:

b.

violin:

keyboard:

c.

violin:

keyboard:

harmonic changes, and the sudden texture changes at the cadences remind one of the extremes of expression in recitatives and arioso sections of the *St. John* and *St. Matthew Passions*.

As in the A-minor *Grave*, when ideas recur in the C-major *Adagio*, they are invariably intensified. This is most evident in the cadential interrup-

tions: the interruption of the cadence on G lasts a single measure (m. 12) and consists of a secondary diminished-seventh chord; the parallel interruption of the cadence on C lasts three measures (mm. 40–42) and involves a dramatically dissonant nonharmonic tone on the beginning of the chromatic progression.

As if to show that all this chromaticism were not in itself a sufficient elaboration of the underlying prelude progressions, the keyboard arrangement of this *Adagio* (BWV 968) adds numerous disorienting dissonant and chromatic counterpoints. In mm. 2–3 (in Example 2–17a), the keyboard's added voices attach a major-seventh dissonance and minor-mode mixture to the relatively simple outer-voice second of the violin version. In mm. 13–14 (in Example 2–17b), the keyboard's chromatic bass upsets the regularity of the violin version. And even under the textural lightening of the violin's double-stops in mm. 33–34 (in Example 2–17c) the added keyboard bass intensifies chromaticisms and introduces modal mixtures.

THREE

The G-minor *Fuga*

In the fugue . . . [Bach] stands quite alone, and so alone that far and wide around him, all is, as it were, desert and void. Never has a fugue been made by any composer which could be compared with one of his. He who is not acquainted with Bach's fugues cannot even form an idea of what a true fugue is and ought to be.

On *Johann Sebastian Bach's Life, Genius, and Works*,
by Johann Nicolaus Forkel (1802), trans. possibly by
Augustus Frederic Christopher Kollmann (1820)

Bach's era accorded fugue a highly honored position among compositional genres. Around the time Bach composed his solo-violin works, Johann Joseph Fux, a peasant's son who had become Capellmeister in the imperial capital of Vienna, was preparing a lavish edition of his *Gradus ad Parnassum* (Steps to Parnassus), the most long-lived composition text in the entire history of Western music.¹ We commonly respect *Gradus* for its masterly treatment of species counterpoint, but it is fugue that occupies the highest step to which Fux leads his student. In the very same decade, Jean-Philippe Rameau published in Paris his *Traité de l'harmonie* (Treatise on Harmony), launching the modern study of harmony. To demonstrate his new harmonic system, the sole composition of which Rameau includes an analysis is one of his own vocal fugues.²

And in Cöthen, Bach at age 37 took pride in a major achievement: the first volume of the *Well-Tempered Clavier*. His ceremonial title page proudly surpasses that of a respected musician who held the prestigious musical post that Bach shortly assumed: Johann Kuhnau (1660–1722), cantor of the Thomaskirche (St. Thomas Church) in Leipzig. In the 1680s and 1690s, Kuhnau had published two sets of partitas in the major and minor keys. The title page of his first volume reads:³

Neüer Clavier Übung Erster Theil	New Clavier Practice, First Part
Bestehend in Sieben Partien aus dem	Consisting of Seven Partitas Built on
Ut, Re, Mi, oder Tertia majore eines jedweden Toni.	Ut, Re, Mi, or the Major Third of Each Tone.

Bach's *Well-Tempered* surpasses Kuhnau's *Clavier Übung* in the number of pieces and keys and in genre. Instead of Kuhnau's seven partitas per volume in the most common major and minor keys (pretty much the keys of Bach's *Inventions*), Bach wrote in all the major and minor keys 24 preludes and fugues:

Das wolhtemperirte Clavier oder Praeludia und Fugen durch alle Tone und Semitonia sowohl tertiam majorem oder Ut Re Mi anlangend, als auch tertiam minorem oder Re Mi Fa betreffend.	The Well-Tempered Clavier or Preludes and Fugues in All the Tones and Semitones, Those Containing the Major Third or Ut Re Mi Just as Well as Those Containing the Minor Third or Re Mi Fa.
---	--

Bach clearly set out to compose the consummate fugue collection. He used fugue subjects that contain only the six notes of the diatonic hexachord ut-re-mi-fa-sol-la (as in the very first fugue in C major) and that contain all 12 tones (in the very last fugue in B minor); he used subjects that stay in the tonic key (most of them) and that modulate to the dominant (as in the E \flat -major Fugue). He wrote fugues for two voices (in E minor), three voices, four voices, and even five voices (in C \sharp minor and B \flat minor). He wrote fugues with one subject, two subjects, and even three subjects (in C \sharp minor); he wrote fugues with no recurring countersubject (in C major) and with two recurring countersubjects (in C minor); he wrote fugues with no strettos (in C minor) and featuring numerous strettos (in C major); he wrote fugues where the subject appears in every measure (in C major) and where the subject is absent for most of the piece (in D major); he wrote fugues which have few or no contrapuntal devices and fugues in which the subject appears in augmentation, diminution, and inversion (in D \sharp minor) or in which the subject appears in numerous canons (in A minor); he wrote fugue subjects reminiscent of old-fashioned *canzonas* (in C \sharp minor) and others that aped modern dances (in G major). The variety of this volume seems endless.

Such compositional prowess suits well a collection for keyboard on which 10 fingers can produce polyphonic textures with close or wide spacings of voices that move at different paces. How much bolder a concep-

tion was it for Bach to imagine fugues for solo violin—on which only four fingers must play in a single position at any one time while the bow moves at only one speed at a time. And how much more daring yet to write violin fugues of such length and complexity. The G-minor *Fuga* lasts 94 measures of 4/4 with sixteenths the predominant fast value. Most *Well-Tempered* fugues with that meter and sixteenths are but a third as long, even though their subjects are longer (such as the fugues in C minor and E♭ major, lasting 31 and 37 measures).

How does the G-minor *Fuga* stay interesting for that long? Essentially, by doing what all Bach pieces do: have something new in each section that builds upon and heightens the previous musical discussion. This continual heightening of levels of activity occurs both within each section of the Fugue and in the Fugue overall.

The Sections of the G-minor *Fuga*

Sectionalization according to Principal Cadence Points

The sections of the G-minor Fugue (a score to which appears in Figure 3-1) are marked in the same manner as the sections of the *Adagio*: by the placement of principal cadences. These occur in the G-minor *Fuga* on the downbeat of m. 14 on the tonic (G minor), in the middle of m. 24 in the dominant (D minor), on the downbeat of m. 55 in the subdominant (C minor), on the downbeat of m. 64 in the relative major (B♭ major), and in mm. 87 and 94 on the tonic.

Each cadence (except the last, of course) is immediately followed by a new section, different in texture, figuration, contrapuntal devices, and usually register from the preceding music—confirming that the cadences do indeed articulate the form of the piece. After the G-minor cadence in m. 14, a modulating two-voice sequence of fugal entries begins in a new register that for the first time surpasses the registral peak of the *Adagio* and leads the *Fuga* toward a new key. After the D-minor cadence in m. 24 a new countersubject appears—the rising melodic-minor fragment $\hat{5}-\hat{6}-\hat{7}-\hat{8}$. After the subdominant cadence in m. 55, this rising countersubject begins to be transposed in relation to the subject (e.g., in m. 56 it appears as $\hat{7}-\hat{8}-\hat{2}-[\hat{3}]$). And after the cadence in the relative major in m. 64 the only consistently slurred sixteenth-note figuration in the *Fuga* appears.

These relations between the principal cadences and the *Fuga*'s structure are hardly coincidental. As in most Bach pieces, including the violin *adagios* and *grave* discussed in chapter 2, Bach marks progress through this *Fuga* by cadencing on different pitches. In addition, he always sets off a new section from its predecessors by doing something more active. For instance, each fugal exposition here is more complex than its predecessors. The opening fugal exposition features subject entries that start on only

two notes—D and G—and lacks a consistent countersubject, even though counterpoints to the subject entries all end up on scale step $\hat{5}$ with a prominent semitone preceding (such as $E\flat$ –A–D or $\hat{6}$ – $\hat{2}$ – $\hat{5}$ in m. 2 with a semitone between $\hat{6}$ and $\hat{5}$).

After the G-minor cadence in m. 14, the second group of subject entries starts on four pitches in a circle of fifths sequence (D, G, C, and F), counterpointed as in mm. 2 and 4–5 (e.g., $E\flat$ –A–D in m. 15, just as in m. 2). After the D-minor cadence in m. 24, the third series of subject entries also follows the circle of fifths with three entries on D, G, and C, but in three voices (one more than after m. 14) and, for the first time, with a consistent countersubject: rising whole tones ($\hat{5}$ – $\hat{6}$ – $\hat{7}$ – $\hat{8}$) replace the descending semitones that pervade previous counterpoints.

The fourth and last series of fugal entries (after the C-minor cadence in m. 55) once again proceeds around the circle of fifths (C–F–F– $B\flat$) but does so for the first time in four voices over virtually the entire usable range of the violin: from a subject statement in m. 55 that touches the open G string to one in m. 58 that sits on a high $B\flat$ atop a quadruple-stop. The rising countersubject now appears transposed, creating new voice leadings.

Violinists performing the *Fuga* can build upon these increasing contrapuntal complexities by energizing the subject anew in each fugal exposition and by bringing out the new countersubjects and new counterpoints. Adjustments of bow stroke and dynamics are good areas for exploration.

In addition to introducing new material after each cadence, Bach also approaches each cadence with something new, again offering violinists numerous opportunities for variety and for energizing the *Fuga*. Nearing the first cadence in m. 14, the fugue subject's repeated-note motive atop triple-stops in mm. 11–12 creates the first “tutti” texture: multiple-stops that are more orchestral filler than independent lines. Approaching the next cadence, the subject in m. 20 is the bass of a three-part texture for the first time. This creates more violinistic difficulties than any previous entry: bowing problems arise in bringing out the subject (whatever bowing technique Bach envisioned). In addition, the particular voicing of the chords here in m. 20 requires at least two left-hand shifts during the subject itself—the first time in the *Fuga* that any shifts are necessary during a subject statement. Not surprisingly, the next statement of a fugue subject below at least two other parts prepares the next important cadence: the subject statement in m. 52 as the “tenor” in a four-part texture (more complex than the three-part texture in mm. 20–21). And not surprisingly, the most extended statement of a melody in the lowest voice begins in m. 82 with the subject in the bass, this time extended so that the basic D–C– $B\flat$ motion of the subject occurs thrice: twice within the subject itself and then extended, as shown in Example 3-1. Bach the violinist-composer drew upon the most technically demanding subject entries to help motivate these climactic moments that lead to the principal cadences.

Fuga
Allegro

5
8/9
11/12
14/15
18/19
22/23
26
30
33/34
38
42/43
89

Figure 3-1. J. S. Bach, Sonata in G Minor for Violin Solo, *Fuga*, autograph score (measure numbers added on left).

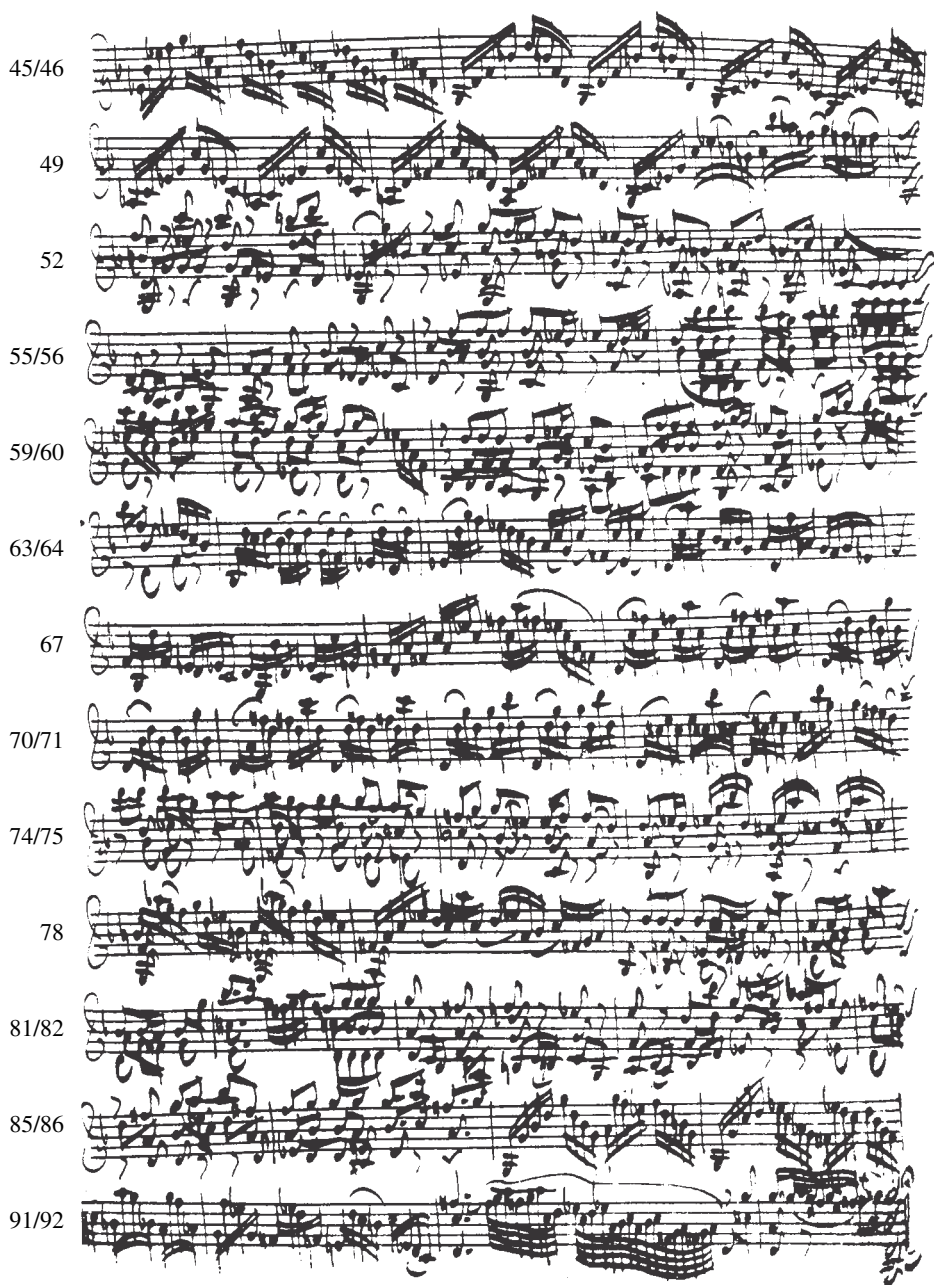
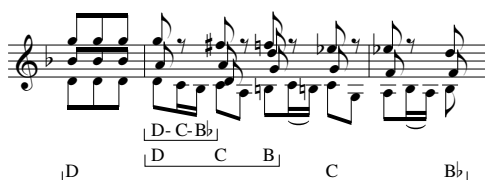


Figure 3-1. (continued)

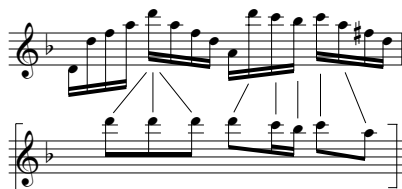
Example 3-1. Bach, Sonata in G Minor, *Fuga*, mm. 82–84.*Other Sectionalizations*

It might seem that with all these correspondences between cadential points, changes of figuration, increasing complexity in the way the fugue subjects enter, and passages in which the subject appears near or at the bottom of a texture, the sectionalization according to principal cadential points is the “form” of the *Fuga*. But as is typical of innumerable Bach fugues, this is not the only plausible way to parse this *Fuga*.

In the first place, other parallelisms in the fugue do not correspond to the cadential sectionalization. For instance, the D-minor sequences that support fragments of the subject in mm. 29–34 *follow* the primary D-minor cadence in m. 24, whereas the similar G-minor music in mm. 74–77 *precedes* the G-minor cadence in m. 87. Likewise, the sixteenth-note figuration that begins in m. 42 (derived from the fugue subject, as shown in Example 3-2) initiates a modulation *away* from D minor long after the important D-minor cadence in m. 24, whereas its recomposition that begins in m. 87 marks the tonic arrival of the G-minor cadence in m. 87.

In addition, other extended passages do not recur in any form during the *Fuga* and would seem to play no important role if the principal cadences were the sole criterion for larger sections. For instance, the music over the D pedal in mm. 38–41 is unique, as is the music over the quite different D pedal in mm. 69–73 or the slurred sixteenth-note figurations that follow the B \flat cadence in m. 64.

Finally, some alternations between the extended contrapuntal passages and episodic sixteenth-note figurations fail to coincide with principal cadences. The C-minor cadence in m. 55, for instance, occurs not at the

Example 3-2. Bach, Sonata in G Minor, *Fuga*, m. 42.

striking change from sixteenth-note figuration to the subject-driven contrapuntal texture in m. 52, but three measures later.

As in most Bach fugues, these multiple different structurings do not project a single “form.” Rather, the overall rhetorical argument heightens activity of all these processes from the one-voice opening until the rhapsodical improvisatory melismas of the final measures.

Other Aspects of Heightening Activity in the *Fuga*

As discussed, each section of the *Fuga* introduces new and more complex ways of presenting the subject and its counterpoints. In addition, all musical ideas in the *Fuga* become more intense when they recur. For instance, the arpeggiated sixteenth-note figuration that first appears in m. 42 expresses a circle of fifths. Its first three measures, featuring new chords on each downbeat, are literal transpositions of one another; only in the fourth measure does the introduction of new harmonies accelerate. On its recurrence that begins in m. 87, the pace of new harmonies increases in the second measure, and each pattern is different from the others. In addition, the recurrence begins over a tonic pedal, heightening the level of dissonance above that in the earlier passage. The dissonances in the third measure (m. 89) are particularly bold as the C-minor 6/4 chord on the first half of the measure turns into a Neapolitan chord in which the A \flat clashes with both the open-G-string bass pedal and the A \sharp bass immediately following. As with the heightened activity levels associated with appearances of the subject, these intensifications suggest to a violinist a host of ideas for bow strokes and dynamics.

Another aspect of intensification arises through the derivation of progressively more abstract patternings from the fugue subject. The subject itself, as shown in Example 3-3a, expresses scale steps $\hat{5}-\hat{4}-\hat{3}$, with this descent articulated by the double-neighbor-note figuration labeled *x*. One abstract derivation appears in mm. 35–38 (Example 3-3b), where *x*, evened out rhythmically to straight eighth notes, elaborates each chord change. The underlying voice leading, beginning with the elaborated part, outlines the $\hat{5}-\hat{4}-\hat{3}$ structure of the subject in a stretto canon, as shown in Example 3-3c.

Many editors of the solo sonatas have assumed that Bach wanted some sort of arpeggiated patterning here (possibly because he explicitly requests such arpeggiations at the two points in the *Chaconne* shown in Figure 3-2, actually writing out a sample patterning in the first of these passages). The 1908 Joachim-Moser edition proposes the double-stop alternation shown in Example 3-4a, a suggestion followed literally in Flesch’s 1930 edition and reflected on most recordings. Champeil’s 1958 edition suggests the thirty-second-note arpeggio pattern shown in Example 3-4b, which has the advantage of bringing out the moving part in the first four beats but the double disadvantage of not following the moving part as it travels

Example 3-3. Bach, Sonata in G Minor, *Fuga*: (a) underlying structure of subject; (b) mm. 35–38; (c) underlying voice leading of mm. 35–38.

a.

b.

c.

around the texture and adding continuous thirty-seconds for the only passage in the entire *Fuga*. When the thirty-seconds end, there is an uncharacteristic letdown in the level of activity. Efrati's 1958 edition retains Bach's notation (as shown in Example 3-4c), highlighting some voice leading with tenuto markings, much as Auer's 1917 edition uses accents (as shown in Example 3-4d) while renotating the chords to reflect violinistic realities. I am not convinced that any elaboration of Bach's eighth-note writing is necessary. If violinists are aware of how the moving figuration is a derivation from the fugue subject and bring out its travels around the texture, they will project a considerable intensity in eighth notes—quite different from the intensity of the passages in continuous sixteenths elsewhere in the *Fuga*.

The $\hat{5}$ – $\hat{4}$ – $\hat{3}$ voice leading of the subject also occurs late in the *Fuga* in two extensions of the subject, each harmonized with high levels of chromaticism and dissonance: the soprano in mm. 80–81, then the bass in mm. 82–84. These extended subject statements that emphasize D–C–B \flat just before the end help to point out that this underlying $\hat{5}$ – $\hat{4}$ – $\hat{3}$ pattern even covers the cadential scheme of the entire *Fuga*: after the music departs from G minor in m. 14, the principal cadences are, in order, in D minor, C minor, and B \flat major.

Intensification also arises from increasing chromaticism as the *Fuga* proceeds. No chromatic notes (other than the common G-minor scale variants of E \flat /E and F/F \sharp) appear until C \sharp in m. 7. Such a diatonic fugal exposition



Figure 3-2. Bach, Partita in D Minor for Violin Solo, *Chaconne*, autograph score: (top) mm. 89–121; (bottom) mm. 200–208.

is virtually unmatched elsewhere in Bach's fugues. All 48 *Well-Tempered* fugues, for instance, feature some chromaticism during the first voice entries, usually the leading tone to the dominant key ($\sharp 4$ of the original key).

A Digression about Fugal Answers

Scale-step $\hat{4}$ is absent from the exposition of the G-minor *Fuga* because its most unusual subject will not allow an answer in the dominant key. The dominant is, of course, the usual key of a fugal answer, largely because it establishes the tonic–dominant relationship so fundamental to tonal music.⁴ Many fugue subjects can be transposed literally into the dominant key, as in Example 3-5, where the subject's and answer's opening notes (C and G) outline the fundamental fifth of the tonic key ($\hat{1}$ – $\hat{5}$). But when a fugue subject presents $\hat{5}$ early on, a literal transposition will obscure that fundamental interval, as Example 3-6a shows. So Bach altered this subject's opening to the form in Example 3-6b: the subject is transposed up a fifth to

a. *p e legg.* *segue arpeggio*

b. *(p)*

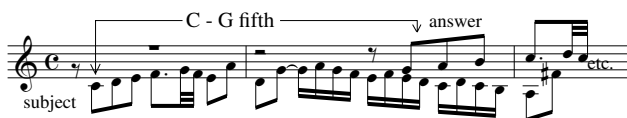
c. ① ②

d. *p*

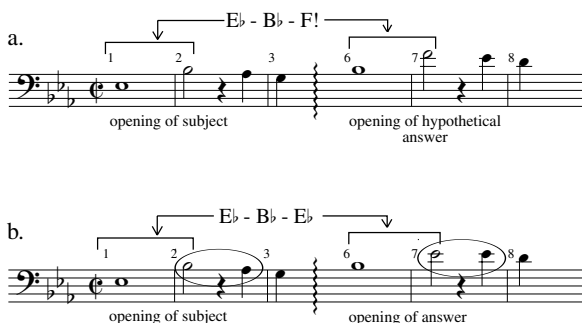
The image displays four musical staves, labeled a, b, c, and d, representing different editions of a passage from Bach's Sonata in G Minor, Fuga, mm. 35-37. Staff (a) shows a single line with fingerings and dynamics. Staff (b) shows two staves with a piano dynamic. Staff (c) shows a single line with fingerings and dynamics. Staff (d) shows a single line with fingerings and dynamics.

Example 3-4. Bach, Sonata in G Minor, *Fuga*, mm. 35–37:
 (a) Joachim-Moser edition (1908); (b) Champeil edition (1958); (c) Efrati edition (1958); (d) Auer edition (1917).

Example 3-5. Bach, Fugue in C Major, *Well-Tempered Clavier*, vol. 1, subject and answer.



Example 3-6. Bach, Fugue in E \flat Major, *Well-Tempered Clavier*, vol. 2: (a) opening of subject and hypothetical answer; (b) opening of Bach's answer.



form the answer, but the second note is transposed only a fourth so that the opening subject and answer notes still project $\hat{1}$ and $\hat{5}$. Such a *tonal answer* better expresses the tonality. Specifically, scale step $\hat{5}$ in the subject is answered by scale step $\hat{1}$ in the answer, while the remainder of the subject is transposed up a fifth.

The tonal answer in the E \flat Fugue replaces the subject's stepwise motion from $\hat{5}$ to $\hat{4}$ (B \flat –A \flat , circled in Example 3-6) with a repeated note (E \flat , also circled) in the answer. Since this E \flat subject is melodically varied, the alteration of melodic contour is minimal. But in the G-minor *Fuga*, the subject features scale step $\hat{5}$ four times in a row followed by $\hat{4}$. A regular tonal answer (shown in Example 3-7a) would be intolerably dull. (A fugue subject quite similar in length, rhythm, and essential melodic motion to the subject of the G-minor *Fuga* appears in the C-minor Fugue, *Well-Tempered Clavier*, vol. 2. But that subject's wider range and absence of immediately repeated notes permits a regular tonal answer.) Bach's solution is to abandon altogether a fugal answer in the dominant and instead place the answer in the *subdominant* key (as shown in Example 3-7b) so that the subject's and answer's repeated notes express the key-defining $\hat{5}$ – $\hat{1}$ (D–G). (This extremely rare answer type occurs in only two other Bach fugues: the organ Praeludium and Fuga in C Major, BWV 531, whose subject, as in the G-minor *Fuga*, expresses only $\hat{5}$ – $\hat{4}$ – $\hat{3}$, and the Toccata and Fugue in

Example 3-7. Bach, Sonata in G Minor, *Fuga*: (a) subject and a hypothetical tonal answer; (b) Bach's answer.

a.

b.

D Minor, BWV 565, whose subject's dominant pedal requires a tonic-pedal response, forcing the answer into the subdominant.) Bach enhances the tonic-key orientation of the exposition by not using any notes unique to C minor ($A\flat$ or $B\sharp$) in the answer or its counterpoint in mm. 2 and 3. (It is curious that neither Bach's autograph nor Anna Magdalena's copy places a flat before the lower-voice E in m. 2, yet every edition and every recording I know adds this flat. Could Bach have intended $E\sharp$ here?)

The Effects of an Answer in the Subdominant

The subdominant resonates throughout the *Fuga* and the sonata's other movements. Just after the *Fuga*'s midpoint, two powerful cadences in C minor—the subdominant—end the longest portion of the *Fuga* without any subject entries: the rhetorical half-cadence in m. 52 and the full cadence in m. 55. More locally, several tonicizations of v and iv (D and C) are juxtaposed from m. 7 (where $C\sharp$ and $B\sharp$, leading tones of v and iv , are the movement's first two chromatic notes) to mm. 82–83. The subdominant is also quite prominent, of course, in the opening *Adagio* as the tonal goal of the second section and the key to which the opening music is transposed beginning in m. 14.

As discussed in chapter 2, the $A/A\flat$ difference between C-minor and G-minor scales becomes increasingly prominent as the *Adagio* proceeds, so that the movement's last form of scale step 2 is actually $A\flat$, not A. This strong subdominant coloring late in the *Adagio* helps prepare the subdominant answer that opens the *Fuga*.⁵ $A\flat$ s also pervade the *Fuga*: in mm. 7, 11–12, and 77–78 in the high-note connections $A-A\flat$, in mm. 45–46 in the prominent f-minor triads during the modulation to C minor, in mm. 48–51 in the stunningly bold chromatic bass $G-A\flat-A-G$, in m. 89 in the already-cited $A\flat$ that inflects iv , and elsewhere.

The $A-A\flat$ juxtapositions that occur in mm. 77–79 and 84 play particularly important roles in the heightening levels of activity that help tie up various aspects of the *Fuga* as the movement nears its end. The Neapolitan

inflection of iv in m. 84 just before the G-minor cadence in m. 87 corresponds to the Neapolitan inflection in D minor in m. 32 before what would have been a primary cadence in D minor in m. 35. Example 3-8 makes the correspondence between these two passages explicit by bringing m. 35 to a transposed version of the cadence that actually occurs in G minor in mm. 86–87. In one sense, the second Neapolitan inflection (m. 84) is merely a decorated transposition of the Neapolitan in m. 32.

But a closer comparison of the two passages shows that the Neapolitan from m. 32 has already occurred *at its original pitch level* in m. 77. In mm. 75–77, Bach has cleverly reworked the music from mm. 30–32 so that many of the identical pitch connections of the earlier passage come back—even though the key is different! The later passage is an expansion of the earlier one: it takes Bach only seven measures to get from the music in m. 32 to what would have been a D-minor cadence in m. 35. When this passage gets under way again beginning in m. 74, however, it takes him 14 measures—twice as long—to get to the strong G-minor cadence. This is because he moves in m. 77 into an interpolation that greatly expands the subdominant side of the key—giving rise to the A–A^b–A juxtapositions in mm. 77–79 (shown in Example 3-9) as well as the chromaticized subject returns that begin in mm. 80 and 82. Bach's model for this subdominant interpolation is the passage in mm. 7–8 where he has a somewhat less dramatic subdominant interpolation, as shown in Example 3-9.

Chromaticism and Heightening Levels of Activity

All these subdominant colorings join another source of the *Fuga*'s chromaticism: the two families of counterpoints to the subject. As already discussed, the opening exposition features one family of counterpoints, each member of which contains a descending semitone between either $\hat{6}-\hat{5}$ or $\hat{3}-\hat{2}$. Even when the subject is absent, such as in the bass lines to the first two cadences, these countersubject motions occur, as in B^b–[G]–A–D–G ($\hat{3}-\hat{2}-\hat{5}-\hat{1}$) beginning on the second beat of m. 13 (replicating the bass line in mm. 4–5) and B^b–[G]–A–D ($\hat{6}-\hat{5}-\hat{1}$) beginning on the third beat of m. 23 (replicating a portion of the identical bass line). Contrasting with these downward semitones, the new countersubject that enters in mm. 24–25 is based on a rising melodic-minor scale: D–E–F[#]–G, G–A–B–C, and E–F[#]–G in mm. 24–27.

Many chromaticisms during the *Fuga* combine and intensify the substance that underlies these two families of counterpoints, leading, as expected, to a dramatic culmination just before the end. The arrival on the last dominant in m. 91 initiates an elaborate grand cadence that begins as two simultaneous scales descend through an octave: a diatonic scale that connects C to C and a chromatic scale that connects D to D, as outlined in Example 3-10. C is of course the subdominant that usurps the traditional role of the dominant in the opening fugal exposition, here brought into the

Example 3-8. Bach, Sonata in G Minor, *Fuga*, mm. 28–35 and 74–87.

corresponds to *both*
m.77 and m.85

29 30 31 32 33

74 75 76 77

33 34 "35" "36"

84 85 86 87

includes extended soprano and bass entries in mm. 80-84

Example 3-9. Bach, Sonata in G Minor, *Fuga*: (a) mm. 6–8; (b) mm. 77–79.

a.

[dominant of D; dominant of C]

b.

[dominant of D; dominant of C]

dominant chord as the chordal seventh and elaborated with a diatonic scale (reminiscent of the diatonic exposition inflected toward the subdominant) while the dominant D is elaborated by a chromatic scale (reminiscent of the more chromatic fugal exposition that begins in D in m. 24).

Immediately thereafter comes a melisma reminiscent of the *Adagio* and a conclusion on the motto voicing of the G-minor tonic, aptly concluding this tightly entwined pair of movements. It is absolutely necessary to slow down the tempo in these final measures, even though Bach himself does not give any verbal indication of such a change by writing *Adagio* or even *Adagissimo*. Violinists and their editions have differed over where and how this is to be done, as is perfectly appropriate for such a climactic improvisatory ending.

Structure and Performance: The Fugal Exposition

What performance options emerge from the structural aspects of the G-minor *Fuga*? This discussion focuses on the opening measures. The opening exposition of the G-minor *Fuga* follows usual fugal conventions ex-

Example 3-10. Bach, Sonata in G Minor, *Fuga*, voice-leading outline of mm. 91–92.

cept when they conflict with violinistic limitations. Three adjacent voices enter in turn in mm. 1–3, suggesting a three-voiced fugue. But the middle of m. 4 features yet another entry—at the original pitch level. Is this a fourth voice or a second entry in the original voice? Two conventions conflict here: fugal entries so close to one another should be in separate voices, but new voices should not duplicate previous ones. Perhaps the middle of m. 4 is a fourth entry, but Bach, not wanting to jump immediately into the very highest register of the *Fuga* (and of the whole sonata), placed the entry an octave lower than he might had he written for keyboard. (In fact, the eighteenth-century organ arrangement that Bach may have made does indeed place this fourth subject entry an octave higher, as shown in Example 3-18.⁶) Also arguing for four voices at the opening is the fact that both later expositions (after mm. 24 and 55) present four subject entries.

The question of three or four voices affects performance of these opening measures. Violinists who conceive the exposition as having three subject entries will conclude the exposition on the subdominant harmony on the downbeat of m. 4 and think of the following music as episodic material (including the entry that begins later in m. 4). By contrast, violinists who hear four subject entries will drive more emphatically to the end of the fourth entry as it creates a cadential feeling in the middle of m. 5. I, personally, find the latter to be more effective in launching the *Fuga*.

The underlying voice leading confirms that the middle of m. 5 is more of a sectional break than the downbeat of m. 4. In a well-composed fugue, subjects and counterpoints connect so that there are many threads of continuity.⁷ For instance, the voice that presents the subject as lower voice in m. 2 continues as bass of the entire texture in m. 3. As Example 3-11 shows, this entry initiates an octave scale in the bass that concludes as the fourth subject entry ends in m. 5—a scale whose harmonies closely resemble those of the *Rule of the Octave* (illustrated in Example 2-4)—just like the bass scales in the *Adagio* (as discussed in chapter 2). In fact, the beginning of this bass scale in the *Fuga* shares many intimate details with the same portion of the bass scale in mm. 2–4 in the *Adagio*, as shown in Example 3-12—and both bass scales immediately follow a D–C–B \flat melodic motion (the basis of the fugue subject!). A second G–G descending bass scale runs through the “tutti” passage that begins in m. 11 and ends with the cadence in m. 14.

Linear connections among the fugue subject and the counterpoints also pervade the upper voices. The third subject entry in m. 3 initiates another descending scale from G (G–F–E \flat) that leads into the fourth subject entry (D–C–B \flat), then leads up an octave to the immediately following high B \flat before continuing to descend.

Violinists aware of the larger connections will create gestures that are longer than the brief subject entries. Indeed, a common performance problem in fugues—creating continuities that transcend individual statements

Example 3-11. Bach, Sonata in G Minor, *Fuga*, mm. 1–5, thoroughbass scale that underlies mm. 2–5.

with all the chords:

with the basic chords:

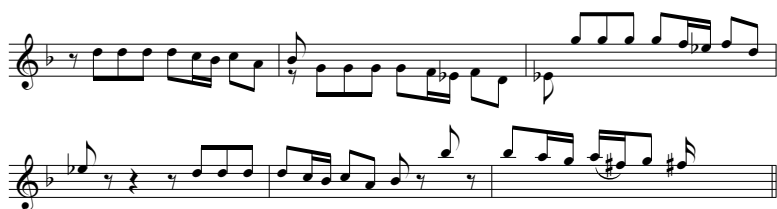
Example 3-12. Bach, Sonata in G Minor: (a) *Adagio*, mm. 2–4, outline; (b) *Fuga*, mm. 1–3, outline.

a.

b.

of the fugue subject—is intensified in the G-minor *Fuga* because it is so long and the subject is both so brief and so frequent. How can a performance balance the need to articulate subjects as individual units and still avoid seeming like an interminable series of similar subject statements? One way is to be aware of the larger processes of the *Fuga*: the changing countersubjects, the intensifying counterpoint, the heightening chromaticism, the greater complexity of all returning materials, and the various climactic moments. These issues will suggest a variety of differing articulations, dynamics, and rubatos throughout the *Fuga*. At a more local level, violinists can explore ways of connecting several subject statements. For instance, they can practice continuities among multiple entries apart from the counterpoint, as shown in Example 3-13. It is helpful to practice this at first just as written, then practice it hearing (and perhaps even fingering) the remaining parts while bowing only these connections, and last play the passage as Bach wrote it. In addition, it is helpful to isolate and practice

Example 3-13. Bach, Sonata in G Minor, *Fuga*, mm. 1–6, subject entries.



the underlying voice leading on which these subject entries ride. One can practice the bass scale from mm. 2–5 and the other scales already discussed in the same manner as just suggested for the subject entries: first playing the scales, then playing them hearing the other parts around them, then fingering the other parts around them, and last playing the passage as written. These suggestions apply not only to the opening measures of the *Fuga* but also to all the other passages in the movement.

The Eighteenth-Century Arrangements

There are two eighteenth-century arrangements of the *Fuga* from the G-minor Sonata, one for organ, transposed to D minor (BWV 539), and one for lute (BWV 1000). Each provides valuable hints about harmony, texture, ornamentation, voice leading, and climaxes that can assist a violinist or analyst of the violin *Fuga*. In addition, these arrangements underline the clarity and self-sufficiency of the solo-violin version.

Harmony

Consider the circle of fifths progression in mm. 42–47. At first, one chord per measure changes from a minor triad to a dominant seventh (d–D⁷, g–G⁷, and c–C⁷). Then in m. 45 harmonies change every quarter note (f–B^b7–E^b7–a^o7), while in m. 46 the progression seems to become a series of stepwise-related seventh chords (G⁷–f⁷–E^b7–d^o7). Most violinists perform these measures just this way: with even bow strokes, simply marking the low notes in mm. 42–44, the low and high notes in m. 45, and the high notes in m. 46, resulting in m. 46 sounding like a slowdown in directed harmonic motion to a series of nonfunctional seventh chords that drift toward the G pedal of m. 47.

By contrast, the organ arrangement projects a steadily accelerating harmonic rhythm supported by an increasingly dense texture that heads toward the pedal in m. 47, as shown in Example 3-14. Mm. 42–44 begin and end with the same bass note but add a reinforcing progression on each

Example 3-14. Bach, Sonata in G Minor, *Fuga*, organ arrangement of mm. 42 and 46–47 (transposed up a fourth).



third beat, while m. 46 accelerates the harmonic rhythm to eighth notes. This arrangement projects just what Bach's pupil Johann Friedrich Agricola described about Bach's playing of these works: that he added "as much in the nature of harmony as he found necessary. *In so doing, he recognized the necessity of a sounding harmony, such as in compositions of this sort he could not more fully achieve.*"⁸

All this suggests a more dynamic manner of performing the violin solo version: bringing out the half-quarter-quarter harmonic rhythm of mm. 42–44 by subtly articulating the beginnings of both the third and fourth beats and also articulating the $\hat{5}$ – $\hat{1}$ bass motion from the end of each measure to the downbeat of the next (imitating the organ's pedal part) and adding a bit of energy to each eighth note in m. 46.

The multitiered sense of harmonic motion suggested here for mm. 42–44 occurs frequently in Bach's polyphonic textures with fast surface rhythms. Consider mm. 3–5 from the *Well-Tempered C-minor Fugue* in Example 3-15. The overall harmonic motion, noted in large Roman numerals below the score, moves in relaxed halves and whole notes. A faster level (notated in smaller Roman numerals within brackets) complements and reinforces the harmonic drive of the larger structure. For instance,

Example 3-15. Bach, Fugue in C minor, *Well-Tempered Clavier*, vol. 1, mm. 3–5.

$[iv_6 - \frac{5}{3} \quad V_6 \quad vii_6 \quad V - \frac{2}{iv} \quad iv_6 \quad iv - 6 \quad i_4^6 \quad V_2 \quad i_6 \quad vii_6 \quad i_6 \quad ii_6 \quad V_5^6 \quad iv_4^6 \quad ii \quad V_5^6 \quad i]$
 G min.: iv_6 ————— $\frac{5}{3}$ i_6 V_5^6 i

The figure consists of two parts. The top part is a facsimile of a handwritten musical manuscript for the Fugue in C Minor, BWV 99, from the Well-Tempered Clavier, Volume 1. It shows four staves of music in C minor, with various musical notations including notes, rests, and ornaments. The bottom part is a transcription of measures 3 through 6 of the same piece. It features a single staff in C minor with a treble clef. Above the staff, there are numbers in thoroughbass notation: 6, 5, f, 6, 3, 3, 2, 4, 6, 3, 7, 6, 6, 6, 5, 6, 6, 5, 3, 6, 5, 3, 4, 3, 6, 5, 6, 4. Below the staff, there are numbers indicating scale steps: 3, f, 7, 2, f, 7, 6, 5, 4, 6, 5, 4, 3, 2, 3, 4, 7, f, 2, 7, f, f, 2, 3, 4, 5, 6, -2, 4, 5. The 'f' indicates the finalis of the key.

Figure 3-3. Bach, Fugue in C Minor, *Well-Tempered Clavier*, vol. 1, ms. P401: (top) facsimile; (bottom) transcription of mm. 3–6.

within the large-scale tonic-to-dominant during the first half of m. 4, vii⁶ neighbors to i⁶ and ii⁶ connects to the dominant.

Some modern analysts will object that the local harmonic motions cited here are mere voice-leading details and hardly real harmonies. But an eighteenth-century analysis of this passage from Bach's circle and another eighteenth-century analysis of a Bach fugue published under the name of one of Bach's own pupils suggest otherwise. Figure 3-3 shows early-eighteenth-century analytical markings on a manuscript of the C-minor Fugue.⁹ Beneath the lowest voice, the analyst wrote the scale step of each bass pitch (with *f.* indicating the *finalis* of the key), changing key from the previous C minor to G minor on the third note because G minor's leading tone (F#) appears in the top voice. Next to each note in the upper voice, the analyst wrote in thoroughbass notation the intervals over the lowest voice. (The analyst made a careless error on the third number: instead of labeling the G–G octave with "8," the analyst wrote "*f.*" for *finalis*—a substitution that makes sense for the bass numerals that indicate scale

steps but does not make sense for the upper-voice numerals that indicate thoroughbass intervals.)

Why did that eighteenth-century musician undertake such a painstaking analysis? Had the goal been to study Bach's counterpoint, there would have been no reason to label the bass's scale steps. The combined labels of scale step and vertical intervals point to only one purpose: a harmonic analysis by which the analyst could compare Bach's harmonies to those in the *Rule of the Octave* (illustrated in Example 2-4 and discussed in relation to the bass scales in the G-minor *Adagio* and *Fuga*). François Champion, who first published the *Rule* in 1716, explained that its chords were the usual ones and then offered fancier chords to elaborate or substitute for those in the *Rule*.¹⁰

Most harmonies in mm. 3–4 are indeed the standard ones for those scale degrees—from the beginning: B, as scale step 7 in C, should support a chord of the sixth; note A, as scale step 2 in G, merits a chord of the sixth with the raised leading tone; and so forth. The analyst probably took note of more daring harmonies, such as the augmented second over E♭ late in m. 3 proceeding to the following G over D, both of which depart from the *Rule of the Octave*. That G over D might have been conceptualized as an elaboration of the *Rule*'s dominant, perhaps akin to what we call the cadential 6/4—a dissonance that precedes the actual dominant chord, as Rameau and others first suggest in writing beginning around 1740¹¹—and the preceding augmented second a part of a diminished seventh that leads to that cadential 6/4.

Multitiered harmonic analyses of two Bach fugues from the *Well-Tempered* were published under the name of Bach's pupil Johann Philipp Kirnberger in 1773.¹² As shown in Figure 3-4, there are three levels of harmonic structure: the immediate surface harmonic progressions and two increasingly overarching levels of harmonic motion.

Violinists aware of the multiple levels of harmonic motion in mm. 42–44 of the G-minor *Fuga* can practice the passage so as to attune their performance to the nuances of all the harmonic and other rhythms present. They can practice only the largest rhythms of the passage, as shown in Example 3-16a, finding an assortment of related bow strokes that energize the D chord as it changes from a minor tonic triad into a dominant-seventh chord. They will thereby conceive of the passage as Rameau might have explained it according to the harmonic theories that he was preparing for publication in Paris at the same time that Bach was composing the sonata in Cöthen. Rameau believed that most tonal harmonic progressions were at heart a series of cadences, usually evaded or elaborated so that the music did not continually come to a halt. For Rameau, the transformation of the D-minor chord at the beginning of m. 42 into a D-dominant-seventh chord by the end of the measure eliminates the chord's sense of being a tonic goal and propels it toward the G chord that is treated in a similar manner in m. 43. The figuration in Example 3-16b shows what the passage might have been like had those harmonies been the only ones present.

The image displays a musical score for Figure 3-4, which includes Bach's Fugue in B Minor and its harmonic analysis. The score is organized into four systems, each with two staves. The first system (staves 1-2) shows the original score, marked 'Largo.' in the top left. The second system (staves 3-4) presents an analysis of the supposed full-voiced harmonic texture, with notes and accidentals written below the original staff. The third system (staves 5-6) offers two levels of more overarching harmonies, with notes and accidentals written above the original staff. The fourth system (staves 7-8) continues the analysis, with notes and accidentals written below the original staff. The score is written in B minor, 3/4 time, and features a variety of musical notation, including notes, rests, and accidentals.

Figure 3-4. Bach, Fugue in B Minor, *Well-Tempered Clavier*, vol. 1, mm. 1–2, and analysis in Johann Kirnberger, *Die wahren Grundsätze . . .* (1773). Staves 1–2 present Bach's score; staves 3–4 present an analysis of the supposed full-voiced harmonic texture that underlies Bach's score; staves 5–6 offer two levels of more overarching harmonies.

Violinists can then learn to hear the more complex level of harmonic motion shown in Example 3-16c that fills in this transformation: between the D-minor chord and the D-dominant-seventh chord is an A-minor chord—a supertonic that begins a brief series of falling fifths that lead to the G chord in the next measure (which is itself treated in the same manner). The figuration in Example 3-16d adds these intermediary harmonies.

Violinists who return to Bach's figuration after such practicing will be

Example 3-16. Bach, Sonata in G Minor, *Fuga*, mm. 42–43: (a) practicing the largest harmonic motions; (b) a figuration that outlines only these harmonies; (c) practicing a more active level of harmonic motion; (d) a figuration that outlines these harmonies.

a.

think this:

play this:

b.

c.

think this:

play this:

d.

more aware of the nuances of Bach's own figuration: the way the arpeggio to the high D on the second beat creates a beautifully poised on-the-beat high note that is then picked up by the after-the-beat D moving to C during the third beat before moving to C as a member of the dominant seventh on the fourth beat; the way the harmonic rhythm speeds up late in the measure helping to propel the music toward the next harmonic; the way Bach arranges the figuration so that the last note of m. 42 is a D, so that the literal bass connection from the D harmony to the G harmony in m. 43 is, in fact, the note connection into the next measure. There is no single way to project all these motions. But exploring the many factors that motivate even a single measure of this passage will affect not only this passage but also innumerable others throughout the *Fuga*.

Motives and Textures

Robert Schumann's accompaniment to mm. 42–44 (in Example 3-17) places the fugue subject against violin figuration derived from it. Schumann thereby betrays how his era viewed musical structure differently from the Baroque. For Bach, the episodes may hint at the fugue subject (to show that they belong to this *Fuga*) but serve primarily as relief from the subject, as in the ritornello-solo alternation of *concerto grosso* movements. The eighteenth-century organ arrangement likewise avoids subject statements during those episodes.

But such *concerto grosso* concepts were no longer part of Schumann's nineteenth-century landscape. Instead, he sought to unite the *Fuga* by continually juxtaposing figurations from different sections. The same spirit moved him to view m. 14 as an opportunity—while the ear is distracted elsewhere by new subject entries—to insert the $\hat{5}$ – $\hat{6}$ – $\hat{7}$ – $\hat{8}$ countersubject (which Bach reserves for a later exposition where it is part of the heightened intensity). Subtly inserting a tune that later plays an important role is a thematic technique that Schumann uses in his own works. In the first movement of his *Fantasy*, op. 17, thematic hints throughout the movement precede a quotation from Beethoven's song-cycle *An die ferne Geliebte* (On the Distant Beloved) that ends the movement with a magical sense both of being a new element (which it is) while also being familiar (because aspects of it are hinted at earlier).

Schumann was not alone in employing this technique. Near the end of the century, Gustav Mahler uses a restatement of the opening theme in the first movement of his Symphony no. 4 in G Major to insinuate a seemingly minor accompanimental motive in an inner voice (m. 20). When the motive later plays quite prominent roles (as in mm. 91–101), it seems oddly familiar, yet a listener is hard put to remember exactly where it appeared. Even when one is very familiar with these pieces, the early statements of these motives are apt to be overlooked (or, perhaps more precisely, “overheard” . . . or “underheard”). Dropping such subtle motivic hints of future events

Example 3-17. Robert Schumann, Piano Accompaniment to Bach G-minor Sonata, *Fuga*, mm. 42–44.



is part of the Romantic psychology of nineteenth-century music. But it is simply irrelevant to Bach's aesthetic and the music of his time.

These differences between Romantic and Baroque thematic aesthetics also explain the dramatic difference between the eighteenth-century arrangements' approach to the opening fugal exposition and Schumann's utter lack of ideas at that point. Schumann allows the violin part to continue unaccompanied until m. 4, where he timidly brings in the piano part (marked *piano*) simply to reinforce the underlying chord progression. In both eighteenth-century arrangements of the *Fuga*, by contrast, the exposition is an opportunity to do things impossible on solo violin. These expositions are longer than the violin version—the only expansions in length within either arrangement—and introduce more voices. (Schumann dared make no such alterations of what he clearly respected as Bach's sacrosanct music.)

The organ exposition in particular (in Example 3-18) exploits the resources of its instrument to re-create imaginative parallels to Bach's violin version. After five measures quite close to the violin version (except that the fourth subject entry appears in its "proper" high register), two additional entries start on A and F (= D and B \flat in G minor), allowing six voices to accumulate before the episodic sixteenths in m. 8 (= m. 7 in the violin version). This dense polyphonic texture exploits the organ's potential and makes the change to the chordally accompanied sixteenths in m. 8 as dramatic as the violin's change to solo sixteenths. The tutti effect in mm. 12–13 (= mm. 11–12) likewise uses the organ's potential to re-create a parallel to the violin's effects. If the arrangement is not by Bach, its author must have been a composer of considerable imagination.

One aspect of the violin version that is missing from the organ arrangement is the clean, directed nature of the lines. The descending bass octave scale in the violin in mm. 2–5 (shown in Example 3-11) helps propel the music toward the episodic sixteenths, and that same bass octave descent in mm. 11–14 helps round off the opening section of the *Fuga* with particular clarity. The organ version retains the descending bass scale in mm. 2–5 (now D–D). But because of the additional entries before beginning the episodic sixteenths the sectional clarity of the violin version is lost. And because the pedals allow a true bass line underneath the upper voices heading toward the cadence in m. 15 (= m. 14 in the violin), the bass no longer ends this first section with a second descent through the octave.

Similar situations arise throughout the organ arrangement. After m. 14, the violin's high register provides contrast with the opening as subjects enter going around the circle of fifths. The organ adds a bass to this passage, eliminating the sense of registral lightening, but adds a stretto, enhancing the growing complexity of the *Fuga*.

These arrangements can suggest to a violinist various textural ideas. The organ voice teaches us that the fourth subject entry is a new high voice. By taking an instant to announce its entry, by exploring a brighter timbre, by playing the whole texture more solidly to suggest four voices,

Example 3-18. Bach, Organ Fugue in D Minor (BWV 539), mm. 1–15.

fourth entry in higher register

fifth entry
(not in violin version)

4

6

8

Example 3-18. (*continued*)

The musical score for Example 3-18 (continued) spans measures 10 to 14. It is written in G minor (one flat) and 3/4 time. The score consists of three staves: a grand staff (treble and bass clef) and a separate bass staff. Measures 10-11 show a complex texture with sixteenth-note runs in the treble and bass of the grand staff, and a steady eighth-note pattern in the bottom bass staff. Measures 12-13 continue this texture with more complex figures in the upper staves. Measure 14 concludes the system with a final chord in the grand staff and a single note in the bottom bass staff.

or by utilizing other means violinists can enhance the textural growth. At the end of m. 5, leading the A-string B \flat to the E-string B \flat promotes the continuity of this fourth voice, helping propel the music into the episodic sixteenths. Likewise, during the subject entries after m. 14 the organ's additional motivic play suggests using dynamics, articulation, and more energetic bow strokes to promote textural growth to prevent these measures from sounding static.

The lute arrangement has a fermata over the downbeat of m. 54 (= m. 52 in the violin version) just before the subject returns in C minor after its long absence. I see nothing amiss with pausing and rippling the quadruple-stop to articulate that major structural break in the *Fuga*.

The A-minor and C-major *Fugas*

One lesson learned from studying the *Well-Tempered Clavier* is that there is no such thing as a single model for Bach's fugal construction. There may be underlying uniformities in voice leading and harmonic paradigms, but each fugue ultimately differs from its siblings in quite essential ways because each grows rhetorically from the idiosyncratic interaction of its unique subject and structural principles. For instance, the two fugues in C in vol. 1 may both present their subject or its motives persistently, but each does this in totally different ways. Bach's creativity is endlessly inventive.

The same is true of the two other solo-violin fugues as they relate to that in G minor. For instance, the subjects of the G-minor and A-minor fugues may be of identical length and metric position, and both may start on $\hat{5}$ and end on $\hat{3}$. But far more important to their individual structures is that the G-minor subject is narrow in range, features iteration or stepwise motion (except for one skip by a third), and demands a unique subdominant answer, while the A-minor subject ranges over an octave with mostly skips and has a usual tonal answer.

In general, the A-minor *Fuga* looks quite similar to the G-minor, with its short subject, its eighths and pairs of sixteenths during subject statements that contrast with measures of sixteenths during episodes, and its occasional grand cadences that articulate the flow (in m. 45 in A minor, m. 73 in E minor, m. 103 in C major, m. 137 in E minor, m. 166 in G major, m. 232 in D minor, and mm. 280 and 289 in A minor). But it is over 50 percent longer (289 measures of 2/4 versus 94 of 4/4 in the G-minor *Fuga*) and marks its larger structural shape with different contrapuntal devices. The opening few measures introduce three separate ideas that interact throughout: the subject, and the episodic figure, and its chromatic-scale counterpoint in mm. 5–6. These ideas intertwine in increasingly complex ways, and each idea appears inverted after m. 125, with frequent references to earlier passages. A single instance of many is the chordal statement of the subject in the bass that begins on G in m. 91 with the descending chromatic scale above; beginning in m. 162, this passage recurs recomposed into another chordal statement of the subject that also begins on G, this time in the soprano, with the chromatic scale—but now ascending—in the bass. Both of these passages are chromatic intensifications of a fully diatonic chordal statement of the subject, also beginning on G, in mm. 81.

The C-major *Fuga* is quite different, with its considerably longer subject, overall length, and design. Yet like the A-minor *Fuga*, it works with the subject and its inversion (whose first appearance Bach marks with the words *al riverso*) and a chromatic-scale countersubject that also appears inverted only when the inversion of the subject enters. The C-major *Fuga* concludes by bringing back its first 66 measures in *da capo* fashion—a fugal procedure absent from the other violin fugues and the *Well-Tempered* but present in the fugal preludes to Bach's *English Suites* 2–6.

It is quite possible that the C-major *Fuga* is related to a now-lost organ

alone would suggest that Bach performed something like an organ version of his violin fugue in Hamburg. Further circumstantial evidence comes from Johann Mattheson, the Hamburg composer, theorist, and chronicler of musical life who was present at Bach's performance and who in 1728 published an anonymous account of Bach's application for the Hamburg position.¹⁶ In 1731, Mattheson included in his *Grosse Generalbassschule* (Large Thoroughbass School) the fugue subject in Example 3-19c.¹⁷ And in his *Vollkommener Capellmeister* (Complete Capellmeister) just a few years later, he included the fugue subject as Bach wrote it along with a countersubject almost identical to Bach's, as shown in Example 3-19d.¹⁸

Moser hypothesizes that when Mattheson first wrote out the subject in 1731 he was writing it down as he remembered it from Bach's performance in 1720, but by the time he prepared his *Vollkommener Capellmeister* he had seen a copy of the violin version of the fugue and therefore wrote it down in a form closer to how it appears in Bach's C-major solo sonata.¹⁹ But if that were the case, Mattheson would have written the subject and answer out in C major, not in G. In fact, Bach never places the subject and answer together in this manner in the C-major *Fuga*, although the disposition of subject and answer that Mattheson illustrates is an almost exact inversion of the opening subject and answer of the violin *Fuga*.

It is more likely that Mattheson was copying the fugal exposition he illustrates in his *Vollkommener Capellmeister* from a G-major keyboard version of the violin fugue. Supporting this contention is the early-eighteenth-century keyboard version (cited in chapter 2) of the *Adagio* of the C-major Sonata—in G major (BWV 968). Perhaps this movement is the extant portion of a keyboard arrangement of at least the *Adagio* and *Fuga* of the C-major solo sonata, akin to the keyboard arrangement of the entire A-minor solo sonata in D minor (BWV 964) and the organ arrangement of the G-minor *Fuga*. In any case, if Bach in December of 1720 did perform an organ version of this fugue in Hamburg, was he perhaps not improvising, as Reinken supposed, but simply performing the fugue he had so carefully composed for the solo-violin sonata?

FOUR

The *Siciliana* of the G-minor Sonata

A *Siciliana* [or] *Canzonetta* is a brief song . . . Sicilian canzonettas are like giguees whose meter is almost always 12/8 or 6/8.

Johann Gottfried Walther, *Musicalisches Lexicon*
(Leipzig: 1732), articles “*Siciliana*” and “*Canzonetta*”

The *Siciliana* lightens the serious tone that prevails in the other movements of the G-minor Sonata. Several factors contribute to this effect. First and foremost, it is the sole movement not in the tonic key of the sonata. It is in B♭ major, a key whose close affinity to G minor in a theoretical sense is enshrined in the term “relative major.” But hitherto in the G-minor Sonata, B♭ is an absent relative, totally missing from the *Adagio* and appearing only briefly in the *Fuga*—a reflection of the central role played by the subdominant in those movements.

In the other solo sonatas as well, the third movement is in a contrasting key: the relative C major in the A-minor Sonata and the subdominant F major in the C-major Sonata. By having a movement in a key different from that of the whole, the three solo sonatas differ from the solo partitas, in which all movements share the same tonic, imparting a single harmonic color to the entire series of movements.

This key change by itself imparts to the sonatas’ third movements a sense of relief from the tonal unity of the opening prelude-fugue pair. In the G-minor Sonata, this sense of tonal relief is strengthened because of the new key’s position in relation to the violin’s open strings. The two lowest open strings, G and D, permeate the sonority of the *Adagio* and *Fuga*: they are the bottom of the motto chord that opens and closes the *Adagio* and appear as the two pedal points in the *Fuga*. The tonic of the *Siciliana* may be only a minor third above the open G string; but with no crucial

note of the key (tonic, dominant, subdominant, or supertonic) being an open string, the whole feel of the key on the instrument is different.

Bach took advantage of this difference of key to emphasize a second major aspect of the *Siciliana*: its dancelike song genre. As the composer and lexicographer Johann Gottfried Walther (1684–1748), Bach's contemporary and distant relative, wrote in the passage that forms the epigraph of this chapter, a *Siciliana* is a song that shares the affect of a gigue. In this particular movement, the combination of lilting dotted rhythms, gently sighing eighth-note figures, and the major mode engenders a movement that reflects little of the seriousness of the sonata's other movements. The freshness of this affect is clearly reflected in the performance habits of those violinists who adopt a lighter approach to the movement as a whole than they do elsewhere in the sonata, using quicker and airier bow strokes, breaking multiple-stops in a more relaxed manner, and keeping dynamics on the relatively quiet side. This is particularly evident in recordings of the *Siciliana*—otherwise quite contrasting in tempo and expression—by Joseph Szigeti and Gidon Kremer. Other violinists—again as varying as Yehudi Menuhin and Itzhak Perlman—adopt the same serious approach to texture and tone in this movement that they use in the other movements of the sonata.¹

A third major difference between the *Siciliana* and the other movements of the sonata lies in its overall form. Leaving aside the *Fuga*—since almost all fugues are idiosyncratic in overall structure—the other movements of the G-minor Sonata all fall into relatively clearly delineated sections: the opening *Adagio* with its three sections and the *Presto* finale with its double bars and repeat signs (discussed in chapter 5). Indeed, other than the pattern-prelude that opens the C-major Sonata, the *Siciliana* is the sole nonfugal movement among the solo-violin works that does not seem to fall into easily recognizable sections. And other than the prelude of the C-major Sonata, it is the sole nonfugal movement without repeat signs that lacks any large-scale repetitions. (The *Largo* of the C-major Sonata, discussed later in this chapter, also lacks repeat signs. But with the appearance of music like the beginning in m. 8 and with the parallel cadential passages in mm. 6–8 and 16–18, it is clearly a two-part movement with a four-measure coda at the end.)

The *Siciliana* joins a category of Bach movements that fall into several (often three) roughly parallel sections, in which each section reworks similar thematic materials while persistently heightening levels of activity and each section ends with a strong cadence. Being aware of the characteristics of such parallel-section movements allows the shape of the *Siciliana* to be perceived more clearly.

Bach's Parallel-Section Movements

The C-major Two-Part Invention

The first of the two-part inventions (BWV 772), shown in Example 4-1, provides a crystal-clear example of a parallel-section movement. The invention clearly divides into three sections, each beginning with an imitation on the opening motive, each continuing with a sequence based on the opening motive and a counterpoint in eighth notes, and each ending with a similar cadence—all as noted on the score and as presented in Table 4-1.

Despite its three clearly delineated sections, the overall shape of the C-major Invention does not follow any of the standardized formal types discussed in books on musical form.² Tonally, each of the sections is different and none repeats or transposes any other: the first section modulates from the tonic key to cadence in the dominant, the second modulates from the dominant key through the supertonic to cadence in the submediant, and the last section modulates through the subdominant key to end in the tonic. With this tonal scheme, none of the usual three-part formal schemes fits: without a clear return to the tonic at the beginning of the third section the piece is clearly not in any variant of ternary (ABA) form, and without any nontonic section transposed to the tonic in the third section sonata form (even if it were historically appropriate to apply sonata form to a Baroque composition) is not a plausible explanation. Likewise, the sectional structure of the movement is of little help in assigning the movement to a standard formal type. Since all three sections of the movement have a similar structure, the movement does not fall into any type of ternary (ABA) form.

The underlying principle of the invention as a whole is continual intensification of compositional elements. And as in a fugue, the opening motive—the invention's first seven notes—serves as the source of increasingly complex derivations, both within the opening section and between the three sections. The motive is transposed (as in m. 2 and elsewhere) and inverted (as in the right hand in m. 3). The parts of the motive are used separately: the opening four-note scalar figure becomes the eighth-note coun-

Table 4-1. Outline of Bach's C-major Two-Part Invention

Section I (mm. 1–7)	Section II (mm. 7–15)	Section III (mm. 15–22)
imitative opening in C (I) (mm. 1–2)	imitative opening modulating from G through C to d (V–I–ii) (mm. 7–10)	imitative opening modulating from a through C to F (vi–I–IV) (mm. 15–18)
sequences, modulating from C to G (I–V) (mm. 3–5)	sequences, modulating from d to a (ii–vi) (mm. 11–13)	sequences, modulating from F to C (IV–I) (mm. 19–20)
cadence in G (V) (mm. 6–7)	cadence in a (vi) (mm. 14–15)	cadence in C (I) (mm. 21–22)

Example 4-1. Bach, Two-Part Invention no. 1.

Section 1

imitation

5 7 6 4 6 6 8 5 5 7 6 4 6 6 8

sequence

3 6 6 5 3 5 3 5 3 2 6 5 3 5 3 5 3

cadential

Section 2

imitation

4 2 3 5 3 3 1 6 8 6 7 9 7 7 5

Example 4-1. (continued)

sequence

11

6 3 3 4 6 4 6 4 6 7 3 4 6 4 6 4 6

6

cadential

13

Section 3

imitation

15

sequence

18

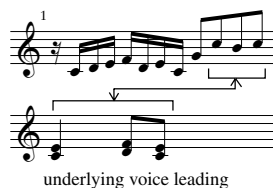
3 3 4 6 4 6 4 6 7 3 4 6 4 6 4

cadential

20

6

Example 4-2. Bach, Two-Part Invention no. 1,
underlying voice leading of opening
motive as a source of neighbor-note figures.



terpoint to the inverted form of the motive in m. 3 and elsewhere (the sixteenth C–D–E–F in m. 1 becoming the eighths B–C–D–E in the left hand in m. 3); the broken thirds that form the second half of the motive are used as a separate unit (as in mm. 5–6); and the underlying voice leading of the motive provides the neighbor-note motive that is the counterpoint in mm. 1–2 and elsewhere (as shown in Example 4-2).

These motivic derivations and other compositional elements do not occur haphazardly but are disposed to heighten the level of intensity both within each section and in the invention overall. Consider rhythm and texture. The first section features a general increase in overall rhythmic and textural density from solo sixteenths (first half of m. 1), to sixteenths against eighths (middle of m. 1 through the middle of m. 6), to isolated instances of sixteenth against sixteenth (middles of mm. 5 and 6) and eventually even a pair of thirty-seconds (m. 6). The second and third sections follow the same general trend but with greater intensity. In the middle section, the motion that precedes the cadence has a whole measure's worth of sixteenths against sixteenths (mm. 13–14); at the close of the invention, the final cadence itself has sixteenth-against-sixteenth (end of m. 21). In terms of texture, during the first section of the invention the voices tend to keep a respectful distance from each other, generally between one and two octaves, coming as close as an augmented fourth only once (on the fourth beat of m. 4). By contrast, during much of the second section the two voices are within an octave of each other, even touching on a unison once (in m. 13). Along with the increased rhythmic activity and the move into minor keys, this closer voicing intensifies the friction between the voices.

Or consider harmony. At the opening of the first section, each of the first few measures expresses a single harmony, while eventually, approaching the cadence in m. 7, the harmonies change each eighth note—and perhaps even each sixteenth (if the last sixteenth of the third beat of m. 6 is heard to represent a subdominant chord). Within the opening section of the piece, the first three measures feature only tonic and dominant harmonies. But in the comparable opening portion of the second section (mm. 7–11), a much wider variety of harmonies is energized by a change of key.

From one section to another, the contrapuntal interaction of the voices continually intensifies. Imitation at the opening (mm. 1–2) is entirely at the octave and built on tonic (m. 1), then dominant (m. 2). At the begin-

The musical notation shows three measures of a two-part setting. Above the staff, a voice leading sequence is indicated: C → D → E. A specific voice leading from G to F is also noted. Below the staff, a harmonic sequence is indicated: I → V → I. The measures are numbered 1, 2, and 3 above the staff.

Example 4-3. Bach, Two-Part Invention no. 1, voice leading that underlies mm. 1–3.

ning of the second section, the voices are reversed. In the first measure (m. 7), both voices once again enter on the tonic (now G), resulting merely in the direct inversion of each of the intervals (labeled in Example 4-1). But in the next measure (m. 8), the voices enter on different pitches: the dominant (D) and supertonic (A), resulting in invertible counterpoint at the twelfth—new intervals, not merely exchanged voices. Bach arranged this invertible counterpoint so that the second section has more dissonances. In mm. 1, 2, and 7, dissonances occur only one at a time. But in m. 8, there are no fewer than four consecutive dissonances: 7–9–7–7. The third section's imitative beginning is even more complex.

A comparable heightening of activity takes place in the sequences that form the middle of each of the invention's three sections. The first such sequential passage (mm. 3ff.) opens with a root-position tonic triad that is the goal of the voice leading and harmonic progressions of the opening imitation, as shown in Example 4-3. With the voices comfortably spaced from each other, the sequence prolongs this voicing of the tonic triad for another measure before beginning a harmonic sequence that leads easily into the dominant key and prepares for the cadence there.

Everything is more complex when this sequence recurs in mm. 11-14: the inverted positioning of the voices now presents a less stable first-inversion triad; the progression is transposed up a step so that the opening chord is the more harmonically distant supertonic of C major (a D-minor triad); and the voices are disposed so that they are much closer together, seemingly without any bass register. All the moorings that made the opening sequence so appropriate for reinforcing the tonic key and then leaving that key are absent: the sequence does not start from the tonic of either C major (the invention's overall key) or G major (the key of the preceding cadence); the registers are no longer the ordinary disposition of bass and melody; and the keys being connected are D minor and A minor (ii to vi of the overall key of C major), not the tonic-oriented C major and G major.

The third statement of the sequential passage is the most striking of all. The original disposition of the voices returns, with the sixteenth-note voice on top. But both of the voices are inverted within themselves. Miraculously, the intervals between the voices remain the same as they were in the second section and the change of key that takes place is still up a fifth. But all the harmonies are different.

Table 4-2. Outline of Bach's A-major Violin Sonata, First Movement

Section I (mm. 1–8)	Section II (mm. 9–17½)	Section III (mm. 17½–38)
imitative opening in A over tonic pedal (I) (mm. 1–3)	imitative opening in E (V) over active bass (mm. 9–11)	sequences using opening and cadential-extension motives, modulating around circle of fifths (ii–V–I–IV– ^{on} V) (mm. 17½–26½)
midphrase, adding new motives; immediately in E (V) (mm. 4–6)	midphrase reworked and sequenced, moving to b (ii), then f# (vi) (mm. 12–16½)	combination of all motives, in A (I), but avoiding tonic (mm. 26½–31)
hemiola cadence in E (V) (mm. 7–8)	hemiola cadence in f# (vi) (mm. 16½–17½)	nonhemiola cadence in A (I) (mm. 32–33)
cadential extension (m. 8)	[no cadential extension; but extension motive joins others in opening of part 3]	cadential extension, extended into second cadence (using motives of all three sections)

Other Bach Compositions with This Structure

The principle that underlies the C-major Invention—working with a series of musical materials in a number of roughly parallel sections to create a continual intensification—exists in a wide range of Bach compositions. The opening movement of the Sonata no. 2 in A Major for Violin and Keyboard (BWV 1015), for instance, features a trio-sonata texture (the violin and the keyboard's right hand supported by the bass in the keyboard's left hand). As shown in Table 4-2, each of the three sections reworks the materials of its predecessors at a heightened level of activity before ending with a strong cadence. For instance, the imitative opening of the second section not only replaces the opening bass pedal with an active bass line (activating the harmonic rhythm) but also spreads the entries among three octaves (instead of only two octaves in the opening measures).

More strikingly, even under the tight constraints of writing a strictly canonic texture, the third movement of that sonata also employs the same principle, this time in two sections, as shown in Table 4-3.

Ritornello Compositions and This Heritage

The same principles underlie many of Bach's *ritornello* works, such as concertos and arias. Here, too, section beginnings are often parallel and section endings are generally strong cadences. The first movement of Bach's *Brandenburg* Concerto no. 2, for instance, opens with a ritornello that contains four subsections or modules (akin to the three subdivisions of the

Table 4-3. Outline of Bach's A-major Violin Sonata, Third Movement

Section I (mm. 1–12)	Section II (mm. 11½–25)
first phrase division, in f# (i) (mm. 1–4)	literal transposition of first phrase division to c# (v), but displaced ½ measure to interrupt previous cadence (mm. 11½–15)
second phrase division, in A (III) (mm. 5–7)	literal transposition of portions of second phrase division, but with interruptions and interpolated repetition of first portion in order to modulate back to tonic; in E–b (♭VII–iv), then f# (i) (mm. 15½–21½)
third phrase division, leading to cadence in c# (v) (mm. 7–12)	literal transposition of third phrase division, leading to cadence in f# (i) (mm. 21½–25)
	Codetta = transposition of beginning of part 2 to tonic (= metrically displaced opening of part 1), ending with half-cadence

main sections in the C-major Two-Part Invention or the first movement of the A-major Violin Sonata), and every subsequent section of the movement is an intensified reworking of that ritornello, as shown in Table 4-4.

This concerto movement is basically a series of roughly parallel sections (with a few brief interpolations), just like the three sections of the C-major Two-Part Invention or the first movement of the A-major Violin Sonata. Each section adds new surprises in harmony, texture, motives, counterpoint, and instrumentation, with many of the alterations and interpolations referring back to earlier sections. Even the unison statement of the first module of the ritornello (mm. 103–104) is hardly a moment of respite, because of the jolting texture change and sudden jump from the relatively distant key of A minor (iii) to the tonic. Only the literal return of the last four measures of the ritornello as the conclusion of the movement provides a bit of rhetorical relief from continual intensification, imparting a satisfying ending to the movement.

The Structure of the *Siciliana*

The *Siciliana* of the G-minor Solo-Violin Sonata shares many compositional principles with the pieces just discussed, despite all the obvious differences of genre and instrumentation, the lack of both a ritornello and points of imitation, and the relatively articulated phrasing characteristic of dance

Table 4-4. Outline of Bach's *Brandenburg* Concerto no. 2, First Movement

Module a	Module b	Module c	Module d
Ritornello 1: presentation of basic material, in I (mm. 1–8 = 8)			
mm. 1–2: repeated	3–4: repeated	5–6: repeated	7–8: ½-m. repeated + cadence
Ritornello 2: introduction of 4 soloists, in I–V (mm. 9–28 = 20)			
mm. 9–22: 2-mm. repeated module appears 3 times; with 4 solo entries interpolated	23–24: literal transposition except for new trumpet part	25–26: literal transposition except for new trumpet part	27–28: literal transposition except for new trumpet part
2 mm. Inserted: 4 soloists (mm. 29–30 = 2)			
Ritornello 3: mostly tutti with some new solo counterpoints, in vi (mm. 31–39 = 9)			
mm. 31–32: transposition with some new counterpoint added	33–35: circle of fifths sequence substituted for module b	36–37: transposition with some new counterpoint added	38–39: transposition with some new counterpoint added
Ritornello 4: sequential expansions of modules a and c, in vi–IV (mm. 40–59 = 20)			
mm. 40–47: 4 circle of fifths transpositions of module a's main melody in soloists with rearrangement of other parts (vi–V/V–V–I)	48–49: literal return of module b in tonic except for new trumpet part	50–57: chromatic sequences on melody of module c, leading to IV	58–59: literal transposition of cadential module
Middle of Movement: 4 entries of solo music as 4-part accompanied fugato, in IV, ii, ♭VII, v (mm. 60–67 = 8)			
Ritornello 5: double rit. with sequential expansions of a and c, in v–ii (mm. 68–83 = 16)			
mm. 68–69: transposition close to mm. 31–32, but with flute counterpoint inverted	70–71: transposition of module b in solo with new orchestration and counterpoints	72–74: akin to mm. 50–57 with new chromatic progression	
mm. 75–76: transposition with new counterpoints	77–79: transposition of circle of fifths sequence from 33–35, reorchestrated	80–81: transposition with some parts reorchestrated (e.g., trumpet has original bass)	82–83: transposition

(continued)

Table 4-4. (*continued*)

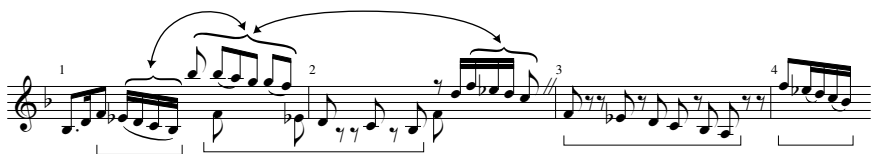
Module a	Module b	Module c	Module d
Ritornello 6: double rit. with sequential expansions of a, in ii–iii (mm. 84–102 = 19)			
mm. 84–89: sequence on module a, new arrangements of voices			
mm. 90–93: modulating circle of fifths sequence			
mm. 94–95: module a in new, canonic version	96–98: transposition of circle of fifths se- quence from 33–35, reorchestrated	99–100: trans- position melody now in bass	101–2: trans- position
Ritornello 7: return to tonic with sequential expansion of c, in I (mm. 103–18 = 16)			
mm. 103–4: unison statement of melody	105–6: literal return as in 48–49	107–14: akin to mm. 50–57 with new chromatic progression 115–16: literal return of mm. 5–6	117–18: literal return of 7–8

rhythms. There are three major sections in the movement, each beginning with the head motive and each ending with a clear-cut cadence: mm. 1–4, 4–9, and 9–19 (plus a cadential reiteration in mm. 19–20 that acts as a coda). As in the other Bach pieces surveyed in this chapter, the first section serves as a rough model for the later ones.

The first section (mm. 1–4) begins and ends on the tonic and, in keeping with the dancelike character of the movement, has a rather clear-cut half-cadence in the middle (at the end of m. 2). The unaccompanied opening motive—a rising arpeggiation of the tonic triad and a descending scale that fills in the gaps in that arpeggiation—provides material for much of the remainder of the section, as shown in Example 4-4. The four slurred sixteenths prepare for the sighing motive of the immediately following top line, as well as other melodic fourth-spans. The entire descending fifth F–B \flat is also the slow-moving bass during the remainder of the antecedent phrase prior to the cadence.

Each recurring element receives additional elaborations whenever it occurs. A simpler version of the antecedent phrase might have sounded like Example 4-5. But Bach instead composed each restatement of what might have been the sighing motive so that it is elaborated differently and more complexly. Similar procedures enliven the consequent phrase.

Example 4-4. Bach, Sonata in G Minor for Violin Solo, *Siciliana*, mm. 1–4: the opening motive as source of some later events.



Example 4-5. “J. S. Botched,” an inferior version of the *Siciliana*’s opening phrase.



These elaborations are not merely decorative, however. Each foreshadows new directions the music takes in the second section of the *Siciliana*. For instance, the second section (mm. 4–9) starts exactly like the first but, as shown in Example 4-6, quite quickly veers off to the relative minor (G)—which is, of course, the tonic of the sonata as a whole. (The usual tonal goal for the first modulation in a Bach movement in a major key would be the dominant, but F major, which plays no role at all elsewhere in this sonata, is totally absent from the *Siciliana*.) The first beat of m. 2 may seem at first to be a case of uncoordinated nonharmonic tones: C resolves to B \flat in the middle part while F (the chord tone) moves to an escape tone G. But Bach sets this up so that by simply changing F to F \sharp when this voice leading recurs in m. 6 he can initiate the dominant pedal in G minor. Likewise, the tonicization of C minor in m. 3 anticipates the more extended C-minor elaboration within the local key of G minor in m. 7—an elaboration whose melodic A \flat –F \sharp recalls the prominent A \flat s in the ending G-minor music of the *Adagio*.

The third section of the *Siciliana*, by far the most extended, begins tonally in G minor but returns to B \flat by m. 11 and then avoids any potentially conclusive tonic triads until its very end. It does this by twice coming to prominent dominant chords at the conclusion of circle of fifths progressions: at the end of m. 12 and on the downbeat of m. 15. These portions of the third section expatiate on the antecedent phrase of the first section, which ends with a half-cadence in m. 2.

Like the approach to that half-cadence in m. 2, the melody that leads to both articulative dominants within the third section features a long descent from the high points of the section. In mm. 1–2, the melody de-

Example 4-6. Bach, Sonata in G Minor, *Siciliana*, parallel aspects of the first two sections: (a) mm. 1–4; (b) mm. 4–9.

a.



b.



7



8



9

Detailed description: The image displays musical notation for two sections of a piece, labeled (a) and (b). Section (a) covers measures 1-4 of the first system and measures 1-4 of the second system. Section (b) covers measures 4-9 of the first system and measures 5-9 of the second system. The notation is in G minor, indicated by two flats (Bb and Eb) on the key signature. The first system consists of two staves. The second system also consists of two staves. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings. The first system is labeled with 'a.' and 'b.' at the beginning of each staff. The second system is labeled with '7', '8', and '9' at the beginning of each staff. The notation is in a standard musical score format, with a treble clef and a key signature of two flats.

Example 4-7. Bach, Sonata in G Minor, *Siciliana*: (a) mm. 10–12; (b) mm. 13–15; (c) m. 2, as possibly heard the first time through; (d) m. 2, as possibly heard in retrospect.

a.

g C⁷ F B^b7 E^b a⁷ d⁷ g c⁷ F B^b

b.

c F⁷ B^b — 7 E^b7 a d — 7 g c — 7 F B^b E^b7

c.

[I⁶ vii⁶ I]

d.

d⁷ g c F⁷ B^b

scends conjunctly from the high B^b until the cadential double-stop C/A. In mm. 10–12, the top line descends from one note higher to the cadential figure that outlines the same A–C (shown in Example 4-7a); in mm. 13–15 the melody once again moves from the same high C to a quasi-cadential C (shown in Example 4-7b).

Similar progressions support these two melodic descents in mm. 10–15: circles of fifths with quite a few seventh chords (as labeled beneath Examples 4-7a and 4-7b). Typically, the second of the two descents is more complex than the first. What is perhaps most surprising, however, is the extent to which both of these circles of fifths are already implied by the approach to the half-cadence in m. 2. When first encountered in m. 2, the harmonies seem to imply a quite simple passing chord within a tonic, as indicated in Example 4-7c—a progression appropriate to the simple, dancelike texture. But after hearing how the seeming nonharmonic tones of m. 2 become the chordal voice leading of m. 6 (illustrated in Example 4-6), one is tempted to hear mm. 2 as shown in Example 4-7d. In this way, the circles of fifths that underlie mm. 10–12 and 13–15 emerge from the ingeniously structured music in m. 2.

Just as the openings of the first and third sections of the movement are roughly parallel (mm. 1–2 and 9–15), so the endings of these two sections are also roughly parallel (mm. 3–4 and 15–19). Once again, the bass fills

in implied harmonies more fully. And once again, the approach to the cadence is taken twice. Example 4-8 provides the details.

The movement thus evinces the principles that underlie the C-major Two-Part Invention, the first and third movements of the A-major Violin Sonata, and the first movement of the *Brandenburg* Concerto No. 2—with several sections (here three, as in the first two cited movements), each roughly parallel to one another in some ways. Its structure, as with all the other Bach movements discussed here, fails to fit any of the formal types codified by the nineteenth century. It is built, just like the prelude and fugue that precede it, from a kernel of material that is shaped according to its own rhetorical framework, continually exploring new and ever more complex possibilities hardly imaginable within the material the first time it is heard.

Carl Philipp Emanuel Bach related in 1774 how his father “when he listened to a rich and many-voiced fugue . . . could soon say, after the first entries of the subjects, what contrapuntal devices it would be possible to apply, and which of them the composer by rights ought to apply, and on such occasions, when I was standing next to him, and he had voiced his surmises to me, he would joyfully nudge me when his expectations were fulfilled.”³ The evidence of pieces like all those discussed in this chapter suggests that Bach’s understanding of what could be derived from musical material, which of these derivations “by rights ought to” be used, and the order in which they should appear was not restricted to fugues but was a property of his compositional style overall.

Violinists aware of all these features will enjoy applying that knowledge to the ever-changing yet ever-recurring music of the *Siciliana*. It is easy to create the sense of dancelike antecedent and consequent phrases in the opening four measures, but much harder to do so in the longer and more complex transformations of the musical material in the third section of the movement. But if one practices the parallel passages illustrated in the examples here, using performances of the shorter, simpler phrases to help grasp the unity of their longer, more complex transformations, a host of articulative and expressive nuances will emerge.

A Questionable Note and Some Thoughts on Ornamentation

The last melodic note before the tonic cadence in m. 4 is clearly a D in the autograph score, as illustrated in Figure 4-1. But in order to create a standard dominant–tonic progression, many editions of the piece change this note to C (usually with no comment suggesting that a change has been made). Exceptions are the versions edited by R. Efrati and Jean Champeil, and the score in the *Neue Bach Ausgabe*.⁴ Editions that transcribe Bach’s manuscript and also provide a violinistic score accurately show that Bach wrote D but change the note to C in the violin score.⁵ The manuscript that

Example 4-8. Bach, Sonata in G Minor, *Siciliana*: (a) mm. 3–4; (b) mm. 15–19.

a. 

b. 

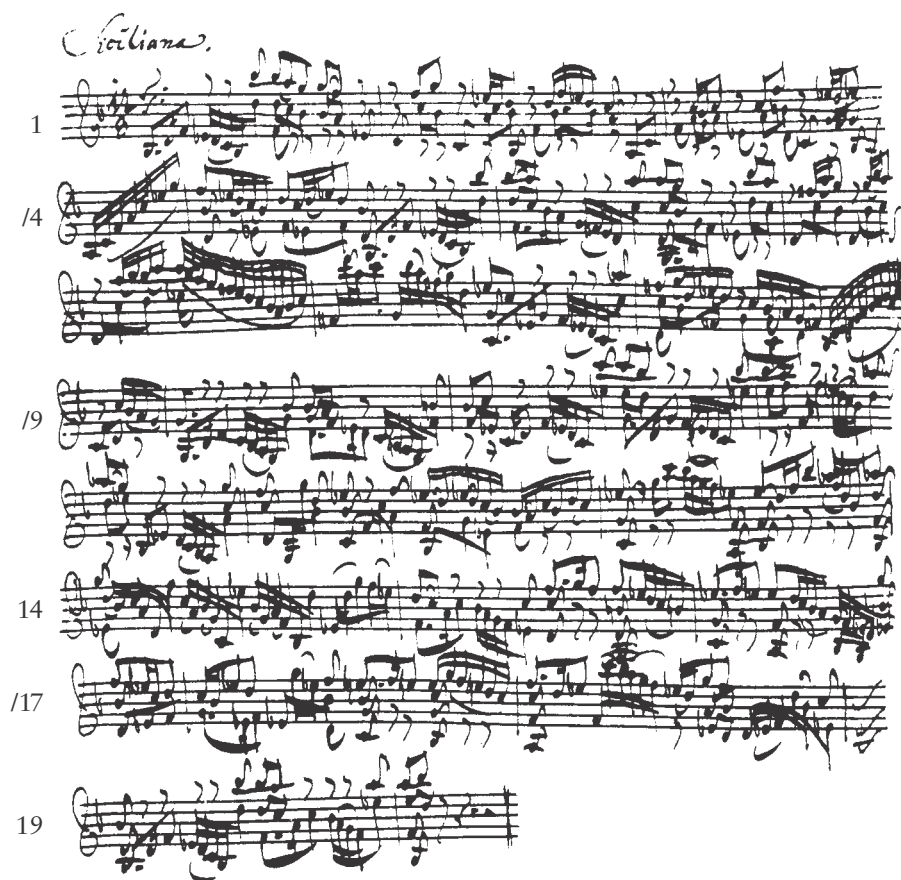


Figure 4-1. Bach, Sonata in G Minor, *Siciliana*, autograph score.

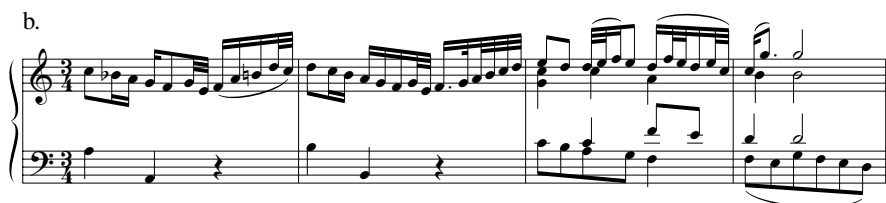
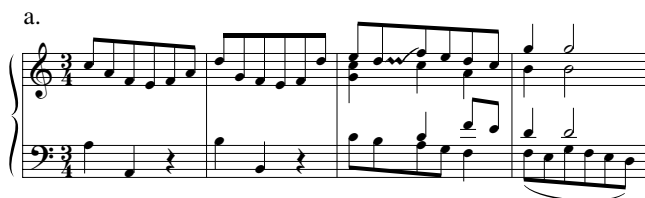
the nineteenth century believed to have been Bach's autograph score (source "C" in the Critical Report to the *Neue Bach Ausgabe*) has a C for this note, which explains why the first publication of the sonata in 1802 and the edition by the Bach Gesellschaft have C.⁶ Following the majority of editions, most performers recording the piece play C, not D. Exceptions are recordings by Jaap Schröder, Oscar Shumsky, and Itzhak Perlman.⁷

It is of course possible that the D in the autograph score is a notational error by Bach. Certainly, using scale step $\hat{3}$ as a harmonic anticipation over a cadential dominant is not common in early-eighteenth-century music. But it is also possible that it is a hint that while Bach was copying this score he was hearing ornamentation of this movement and accidentally wrote a D, thinking of a D grace note beginning a trill on the C.

Example 4-9. Bach, Sonata in G Minor, *Siciliana*, possible ornaments in mm. 1–2.



Example 4-10. Bach, *English Suite* in A Minor (BWV 807): (a) *Sarabande*, mm. 5–8; (b) Bach's right-hand ornaments (*agréments*).



In general, a movement like the *Siciliana* seems to invite ornamentation in the form of mordents and trills (and even perhaps further ornamentation), such as those shown in Example 4-9. In the *Largo* of the C-major Sonata, Bach notated 11 trills. And in two of his English Suites, Bach followed the sarabandes with suggested *agréments* (ornaments): in the A-minor Suite just for the right hand; in the G-minor Suite for both melody and bass. Example 4-10 shows his suggestions for one passage. I personally see nothing wrong with violinists exploring the addition of a fair amount of ornamentation to the *Siciliana*. I am frequently surprised by how violinists, even those involved in the “historically informed” performance movement, virtually never add any ornamentation to Bach’s solo sonatas. Movements like the *Andante* of the A-minor Sonata seem to me to beg for substantial ornamentation during the repeat of each half of the movement. Example 4-11 suggests some ornamentations, not necessarily as a single definitive version, but as a spur to each player’s imagination.

Example 4-11. Bach, Sonata in A Minor, *Andante*, possible ornamentations for the repeat of the first half.

1st ending

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

[remainder as in first reprise]

The Third Movements of the Other Solo-Violin Sonatas

The other two solo sonatas have third movements that fall into two halves. The two halves of the *Andante* of the A-minor Sonata are clear from the repeat signs and first and second endings. By contrast, no such repeat signs appear in the *Largo* of the C-major Sonata. But the cadence in m. 8 clearly divides it into two halves. In both movements, the second half follows the order of events in the first half—more closely in the case of the *Largo* (as shown in Table 4-5) than in the case of the *Andante* (as shown in Table 4-6).

Exploring the underlying voice leading of these movements leads a violinist to understanding the relationships between the original sections and their later transformations—just as understanding the possibilities inherent in the opening section of the *Siciliana* provides a key to understanding its later transformations. In the *Largo* of the C-major Sonata, for instance, the opening four-measure phrase returns greatly shortened as a two-measure phrase in the dominant in mm. 8–9. As Example 4-12a shows, the length of the first phrase arises from an expansion of the opening A-over-F third to become the F-over-A sixth (actually octave-plus-sixth) at the end of m. 3—an interval that then collapses to a simple sixth before moving to the cadence in m. 4 that restores the original A-over-F third. The phrase that begins the second half of the movement (mm. 8–9) is so much shorter because it simply decorates its parallel E-over-C opening third with a neighboring bass (as shown in Example 4-12b).

Table 4-5. Outline of the *Largo* from Bach's C-major Sonata

First half (mm. 1–8)	Second half (mm. 8–21)
1–4½: phrase in I framed by identical voicing of tonic F/A (descending bass scale F–A and cadence)	8–9½: much shorter version of phrase in V, beginning and ending like mm. 1–4 with same voicing of local tonic C/A (simply neighboring bass motion)
4½–6: modulating to V	9½–10½: using same figure to modulate to ii 10½–16: interpolated section working with motives of both previous sections; motion to cadence on ii (m. 13), then return to tonic key, working with opening bass line (F down to A)
6–8: cadence in V	16–18: transposition of cadence to I 18–21½: <i>codetta</i> leading to considerably more elaborate cadence on I

Table 4-6. Outline of the *Andante* from Bach's A-Minor Sonata

First half (mm. 1–11)	Second half (mm. 12–26)
1–4: phrase moving from I to a weak cadence on V	12–15: chromatic recomposition of phrase modulating from V to on V/vi
4–8: continuation returning to a weak cadence on I	15–19: recomposition moving to a cadence in iii 19–23: interpolated section based on fragmentary phrases in mm. 4–5 and elsewhere, modulating through ii to end on half-cadence in I
8–11: change of key to V and strong cadence in V	23–26: recomposition to much more complex cadence in I

The G-minor *Presto*

The *Presto*'s continuous fast notes and two pairs of repeat signs recall nineteenth-century perpetual motions and binary forms. Indeed, Johannes Brahms (1833–97) turned this very movement into two compositions with precisely those features: piano etudes for developing facility.¹ In one etude he kept Bach's solo in the right hand and wrote continuous sixteenths against it in the left hand, and in the other he kept Bach's solo in the left hand and wrote continuous sixteenths against it in the right hand.

But similarities between this movement and later perpetual motions and binary forms are deceptive. The dynamic of Bach's rhythms and forms is fundamentally at odds with later apparently similar compositions. This chapter contrasts Bach's *Presto* (and some other continuous-rhythm movements from the solo-violin works) with nineteenth-century perpetual motions and contrasts the *Presto*'s two-section outline with later binary forms. Differentiating Bach's practices from those of later eras allows his own inherent structures to emerge.

The *Presto* and Perpetual Motions

Paganini's Moto perpetuo and Its Metric Hierarchy

The *Moto perpetuo* by Niccolò Paganini (1782–1840), whose opening appears in Example 5-1a, is the nineteenth-century epitome of its genre. The melodic fluidity encourages violinists (and even flutists—witness James Galway's famous recording) to aim for a thrilling sense of speed. This fluidity is not merely a factor of the actual speed—it arises even more from the rhythms inherent in the melodic line. In the first four beats of the melody, for instance, a chord tone appears on every strong, odd-numbered sixteenth (the first and third sixteenths of each beat) and a nonharmonic tone on almost every weak, even-numbered sixteenth. Every nonhar-

Example 5-1. Paganini, *Moto perpetuo* (New York: International, n.d.): (a) mm. 1–3; (b) the underlying *bel canto* melody.

a.



b.



monic tone is a neighbor or passing tone that connects to the preceding and following notes by step, so that no nonharmonic tone jumps out of the texture because of a prominent skip. In addition, chord tones, not nonharmonic tones, adorn the tops and bottoms of most significant melodic spans: E atop the opening tonic chord, D and G during the following dominant, and so forth. As a result, every prominent note is a chord tone as well as a tone on a relatively strong metric point.

These melodic features contribute to the impression that the sixteenths are merely filler in a leisurely *bel canto* melody with clearly marked phrase subdivisions, as Example 5-1b illustrates. No significant level of rhythmic activity exists between this melody and the running sixteenths that fill in the melodic gaps; that is, one level of essential rhythmic activity (the actual notes of the piece) features fluid sixteenth notes, and another essential level of rhythmic activity delineates the underlying melody depicted in Example 5-1b. No intermediate levels receive any strong articulation: nothing in the texture focuses regular attention on the eighth-note level, and even quarter-note activity only projects when the underlying melody notes move at that pace. Figure 5-1 graphically depicts the levels of the metric hierarchy. With such a metric hierarchy, no matter how fast the sixteenths go (and the faster they go, the more thrilling the ride), the *Moto perpetuo*

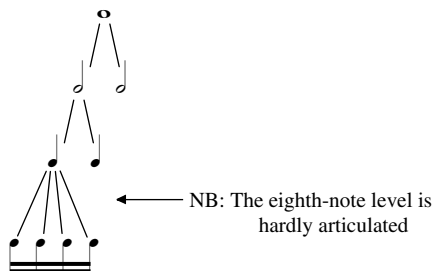
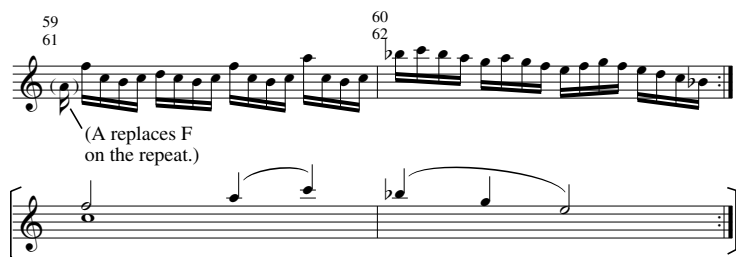


Figure 5-1. The metric hierarchy in Paganini's *Moto perpetuo*.

Example 5-2. Paganini, *Moto perpetuo*, mm. 59–62.



unfolds with the Italianate grace and poise of a lyrical aria by one of Paganini's operatic contemporaries like Gaetano Donizetti (1797–1848) or Vincenzo Bellini (1801–35).

To be sure, Paganini does not maintain exactly this state of affairs throughout the piece. Already in m. 2 he skips out of the nonharmonic tone E at the end of the third beat and places a passing tone on the third sixteenth of the next beat (the same E). But even with these minor disruptions to the alternation of chord tones and nonharmonic tones, the main melodic notes are all on the beats. Even later in the *Moto perpetuo*, when a more *agitato* effect emerges, the same features predominate. In the passage from the development section in Example 5-2, where there are many more skips than at the opening, the main melodic notes are still entirely on the beat, and the figuration has the effect of reinforcing the disparity between the surface rhythm of rapid sixteenths and the essential melody activity in quarters and half notes. These metric and textural features of Paganini's *Moto perpetuo* characterize innumerable nineteenth-century rapid continuous-rhythm textures.

The Metric Hierarchy of Bach's Presto

The type of texture and metric hierarchy found in Paganini's *Moto perpetuo* is entirely foreign to Bach's style. Bach's continuous sixteenth-note textures almost invariably project a metric hierarchy in which all levels project significant activity and in which a range of accentuations occur on metrically weak points, often boldly conflicting with one another and creating metric ambiguities. By deploying these interacting levels of significant rhythmic activity creatively Bach was able to create his characteristic increase in overall activity even in movements where the surface rhythm seems to be merely a continuous stream of sixteenths.

Consider the opening of the G-minor *Presto*. Excitement and ambiguity abound even in the first three measures: Is the meter 3/8 or 6/16? Both

Example 5-3. J. S. Bach, Sonata in G Minor, for Violin Solo, *Presto*: (a) mm. 1–4 interpreted in 3/16; (b) mm. 1–4 interpreted in 3/8.

a.

b.

duple and triple patternings seem to be embedded in Bach's figuration. Each group of three notes replicates the opening three-note motive one stage lower in the downward arpeggiation of the tonic chord shown in Example 5-3a. At the same time, as Example 5-3b shows, alternate notes mark the eighth-note beats, yielding a measure-by-measure outline of the motto voicing of the G-minor tonic chord of the first movement—a voicing of the tonic chord that ends the *Presto*. Furthermore, this metric ambiguity emerges in other figurations throughout the *Presto*, such as those shown in Example 5-4.

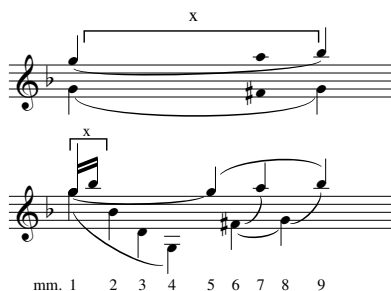
Remarkably, neither metric patterning seems strong enough to overwhelm the other. No matter which way violinists think they are playing the passage, the other interpretation remains quite audible in their performance. I urge violinists to record themselves playing the passage conceptualizing it both ways and then listen immediately to their own performances and see how much residue of the other interpretation remains in

Example 5-4. Bach, Sonata in G Minor, *Presto*, later appearances of the 3/8 vs. 3/16 metric conflict: (a) mm. 9–11; (b) mm. 25–29.

a.

b.

Example 5-5. Bach, Sonata in G Minor, *Presto*, underlying structure in mm. 1–9.



each rendition. I have played recordings of the opening measures of the *Presto* for several musicians and asked which meter projected. Invariably, I received varying answers, confirming that the metric ambiguity here is so deeply embedded that some residue of it projects no matter how hard the violinist aims for a single vision.²

Even more strikingly, whichever metric interpretation a performer or listener desires for any of these passages, prominent notes conflict with it, beginning right in m. 1. The highest note in that measure, B \flat , falls on a weak metric point in both the 3/8 and 6/16 interpretations. Yet that weak metric placement of the high B \flat is by no means a compositional miscalculation on Bach's part. The opening G–B \flat foreshadows the motion between the same two pitches that underlies the opening G-minor music stretching from m. 1 to m. 9, as shown by the “x” brackets in Example 5-5 (urging violinists to articulate that B \flat clearly no matter which meter they hear).

The 1+5 slurring that begins in m. 5 calls attention to a different sort of metric conflict: a syncopation that the skips would have projected even if the measure were unslurred.

All this purposeful metric complexity stands in sharp contrast to Paganini's *bel canto*. Bach's figuration creates the metric hierarchy shown in Figure 5-2. Instead of Paganini's fast surface flashily elaborating a much slower simple melody, Bach's metric hierarchy offers musical interest at every level: in the prominent sixteenths contesting the meter, in 3/8 versus 6/16, or in the alternation of different patterns in mm. 5–8.

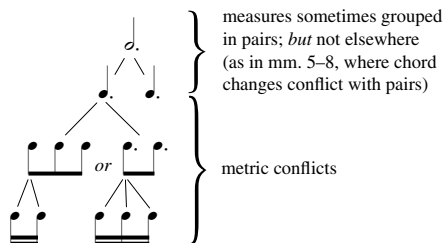


Figure 5-2. The metric hierarchy in Bach's *Presto*.

These ambiguities even affect interpretation of strong and weak measures. Consider mm. 4–8. Returning to the opening high G on the downbeat of m. 5 seems to begin a new unit of phrasing; an alternation in two-measure units of two patterns, implying a strong–weak alternation beginning in m. 5 that makes odd-numbered measures strong. But the changes of harmony occur instead on the even-numbered measures. Either the strong–weak patterning changes to adjust to the harmonic rhythm (creating, at least in retrospect, a three-measure unit in mm. 1–3) or a measure-level syncopation arises because of harmonic changes—the factor that is usually decisive in locating downbeats.³

An Obscure Metric Notation

To be sure, Bach supplements his 3/8 meter signature with a special barring: Every other bar line is just a short stroke, not a full bar line, as shown in Figure 5-3. Bach occasionally employed this notation elsewhere, as in the *Corrente* (written in 3/4) of the B-minor Solo-Violin Partita, the opening of which appears in Figure 5-4a. He also seems to have begun to write bar lines in the same manner in the *Presto Double* of that movement (which has the same meter signature as the *Corrente*). As Figure 5-2b shows, the second bar line of the *Double* seems to have been written twice, perhaps to make it a complete bar line—thereafter, all the bar lines are single strokes of the usual length. A puzzling instance of this notation occurs in Bach's A-minor Three-Part Invention. In the *Clavierbüchlein vor Wilhelm Friedemann Bach* Bach wrote short bar lines every other measure, whereas in his later autograph of all the inventions he wrote normal barring.⁴



Figure 5-3. Bach, Sonata in G Minor, *Presto*, autograph score.



Figure 5-3. (continued)



Figure 5-4. Bach, Partita in B Minor for Violin Solo, autograph score: (top) *Corrente*, mm. 1–7; (bottom) *Double of the Corrente*, mm. 1–4.

The significance of these short bar lines remains obscure. I know of no eighteenth-century discussion and am unaware of any modern discussion. The notation may have carried some implications for tempo, which could explain why Bach began to notate the *Double* of the *Corrente* in the B-minor Partita with these half bar lines and then corrected himself, perhaps after he realized that he had written *Presto* for the *Double* but not for the *Corrente*. But then why would he have written out the A-minor Invention once with these half bar lines and once without them? Perhaps the half bar lines are supposed to indicate strong and weak measures. If that is the case, however, many violinists disregard the notation. Many recordings of the *Presto* shift the strong–weak measure groupings during the course of the movement. Probably the most extreme recording I know in that respect is that by Nathan Milstein, who plays the cadential arrival of each half of the movement so strongly in a metrical sense—even though they are notated in midmeasure—that he then inserts an entire (weak) measure of silence before taking each repeat or continuing to the next section!⁵

Baroque versus Later Metrics

The vibrant, continually changing interaction among the energized levels of the *Presto*'s metric hierarchy characterizes much high-Baroque music. But such rhythmic, metric, and phrasing situations were foreign to nineteenth-century styles. Charles Gounod (1818–93), for instance, heard in the opening prelude from Bach's *Well-Tempered* merely a rippling accompaniment against which to compose his "Ave Maria," shown in Example 5-6a. He failed to hear that Bach had written not a mere arpeggio, but an intricate Baroque pattern with several conflicting structures as shown in Example 5-6b (recalling multiple possibilities in the G-minor *Presto*'s figuration).⁶ Gounod's slowly unfolding *bel canto* melody takes center stage, suppressing these complexities and turning Bach's Baroque prelude into a nineteenth-century texture stylistically quite similar to Paganini's *Moto perpetuo*.

Example 5-6. (a) Gounod, “Ave Maria,” opening of melody; (b) Bach, Prelude in C Major, *Well-Tempered Clavier*, vol. 1, m. 1, patternings.

a.

b.

The entire pattern outlines five parts	The eighth notes outline four voices	The quarter notes present bass and soprano	The 2+3+3 grouping conflicts with the meter
---	---	--	--

It is of course instructive to compare early-eighteenth-century compositions to nineteenth-century ones to study the differences between Baroque and nineteenth-century notions of rhythm and texture. But as luck would have it, we possess an even more striking bit of evidence to compare early-eighteenth- and nineteenth-century notions of rhythmic structure in the same piece. Bach himself and a major nineteenth-century composer—Robert Schumann—set themselves the identical compositional task: to write a full accompaniment to the same movement from one of Bach's solo-violin works. These accompaniments demonstrate clearly how differently these two ages conceptualized rhythm and style. Zeroing in on these differences helps us as performers and listeners to realize how many of our notions of Bach style remain under the influence of nineteenth-century ideas.

*Bach's and Schumann's Accompaniments to
the E-major Preludio*

Both Bach and Schumann wrote accompaniments to the *Preludio* from the E-major Partita: Bach in order to turn the movement into the *Sinfonia* to Cantata no. 29; Robert Schumann in his piano accompaniments to all the solo works. Particularly striking is the manner in which Bach's arrangement maintains an eighteenth-century sound, whereas Schumann's accompaniment turns the movement into a nineteenth-century *moto perpetuo*.

Remarkably, this stylistic transformation takes place even though Schumann, other than adding his accompaniment, altered not a single note in the violin part and hardly chose a single harmony that Bach might not have used—Schumann's rhythmic profile alone begets this stylistic transformation. Bach, when he wrote an orchestral accompaniment to the *Preludio*, built upon the already active rhythms of the violin solo and linked this local activity to larger metric units by strong articulations of all the intermediate levels of the metric hierarchy. By contrast, Schumann, in his accompaniment, emphasized the swing of the meter and downplayed metric levels between the continuous sixteenth notes and the measure, creating a more lyrical surface not unlike that of Paganini's *Moto perpetuo* and Gounod's "Ave Maria."

The opening of the E-major *Preludio* (with Schumann's accompaniment) appears in Example 5-7. In Bach's violin solo, every level of the metric hierarchy from the two-measure level down to the sixteenths possesses a clear profile. The two-measure rhythmic level in Bach's solo is quite regular, with measures grouped into pairs by repeated or echoed patterns, as noted by the groupings over the score. The measure level features a frequent sarabandelike articulation of the second beat: in mm. 1–2, the eighths begin on beat 2; in mm. 3–6 and 9–12, a new chord member appears in the moving part on the second beat and remains until the end of the measure, as shown in Example 5-8a. Indeed, such stressed

Example 5-7. Bach, Partita in E Major, *Preludio*, mm. 1–17, with Robert Schumann's accompaniment.

The musical score is presented in four systems, each with a violin staff and a piano accompaniment staff. The key signature is E major (three sharps) and the time signature is 3/4. The piano part includes dynamic markings (*p*, *f*, *cresc.*) and articulation (accents). The violin part includes phrasing slurs and fingerings (2, 2 (1+1), 2 (echo), 2). Measure numbers 5, 9, and 13 are indicated at the start of their respective systems.

second beats characterize many later figures, including the one shown in Example 5-8b.

Faster levels of the metric hierarchy spice up this relatively regular meter and hypermeter. Having the piece open with a rest means that perception of both the 3/4 meter and the two-measure regularity is delayed

Example 5-8. Bach, Partita in E Major, *Preludio*: (a) mm. 3–6 and 9–12; (b) mm. 29–31, with Schumann's accompaniment.

a.

underlying structure

b.

underlying structure:

(since no one hears the silent downbeat except retroactively), imparting to the listener a less symmetrical impression than the two-measure groupings above Example 5-7 imply. Melodic high and low points, pattern beginnings, and other accentuations tend to occur off the beats. For instance, the top note of the moving voice in m. 3 highlights a metrically weak eighth. In the later figure in Example 5-8b, each ascent begins on the weak eighth of a beat and ends on the weak second sixteenth of a beat. The interaction of the metric grid with these accentuations creates the imaginative rhythmic complexity that enlivens continuous rhythms, deceptively bland in appearance in so many other Bach passages (in sharp contrast to the relatively unarticulated sixteenth-note surface in Paganini's *Moto perpetuo*).

In Schumann's version, powerful downbeats in mm. 1–12 overshadow these local accentuations. Schumann ignores any hints of the sarabande rhythm that might distract from these emphatic downbeats. In mm. 3, 5, and 9–12, Schumann does not initiate eighths on the second beat to articulate the sarabande rhythm but, rather, starts the accompanying eighths after that beat primarily to lead strongly to the next downbeat. Indeed, by his slurring, by the *marcato* chords on the last eighth in mm. 3 and 5, and by the tied Es in mm. 10 and 12 Schumann deliberately prevents even the

Example 5-9. Bach, Cantata no. 29, *Sinfonia*, mm. 1–17.

Presto

Tpts:

Obs, Vlns, Vlas:

Organ:
(continuo)

Timp in D:

5

9

6

6

third beat from being articulated. In his desire to project the swing from one downbeat to the next, he blots out all of Bach's characteristic rhythms. This is not necessarily unappealing. A well-known living composer once told me that he really enjoyed the swing of Schumann's version.

The rhythmic profile of Bach's orchestrated accompaniment, shown in Example 5-9, differs strikingly from Schumann's. At the very opening and again in mm. 7-9 and 11, chords occur on each beat—not solely on the downbeat as in Schumann's version. Bach ingeniously divides these chords into two groups of two chords each: one in the three trumpets, the other in the strings-plus-oboes. As a result, even within the steady quarter-note articulations of the chords, he creates a complex rhythmic as well as timbral and registral antiphony between falling motions in one instrumental choir and rising motions in the other. His orchestration thereby not only articulates each beat but also projects two separate beat groupings: 1-2-rest, 1-2-rest vs. 1-rest, 3-1-rest, 3-1-rest. In mm. 9 and following, when Bach, like Schumann, doubles the moving part in thirds and sixths, Bach creates an eighth-note figure in the strings whose octave leaps or sixteenth pair stresses the second beats, highlighting the sarabandelike syncopations that Schumann ignores.

As with the different metric profiles of the G-minor *Presto* versus Paganini's *Moto perpetuo*, or the C-major Prelude from the *Well Tempered* versus Gounod's "Ave Maria," the differences between Bach's and Schumann's accompaniments to the E-major *Preludio* spell out the characteristic differences between early-eighteenth-century continuous-rhythm passages and nineteenth-century perpetual motions. Bach's accompaniment to the *Preludio* stresses multiple emphases on individual beats and their groupings, granting each level of the metric hierarchy its own integrity, and re-creating his characteristic articulated rhythms in a new climate. Schumann's accompaniment primarily stresses the swing of the measure level, omitting the intermediate levels that in Bach's version link the measure level and the more local rhythmic vitality.

These differing rhythmic profiles also affect phrasing. As shown in Figure 5-5, Bach brings back the timbral and registral antiphony from mm. 1-2 in mm. 7-9, marking m. 7 as a new beginning parallel to m. 1, thereby articulating the opening measures as two groups of six: a two-measure fanfare, a repeated two-measure group, then the same again. Schumann's mm. 7-8 simply fill the gap between mm. 5-6 and 9-12, promoting regular four-measure groups: mm. 1-4 followed by a two-measure echo and a two-measure link in mm. 5-8 (adding up to a second four-group) and then another group of four. Once again, Bach's version has more vibrant articulations on several levels, whereas Schumann's accompaniment promotes greater regularity beneath the speedy sixteenth notes.

Schumann's nineteenth-century vision of the *Preludio*, with its swift surface and swinging accompaniment, is reflected in the *Preludio* performances by the great nineteenth-century violinist Pablo de Sarasate (1844-1908), whose flashy technique is reflected in his own compositions, in the

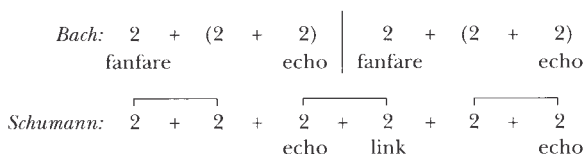


Figure 5-5. Phrasing in Bach's and Schumann's Accompaniments to the *Preludio* of the E-Major Partita.

pieces he commissioned (most notably the 1875 *Symphonie espagnole* by Édouard Lalo [1823–92]), and in a few recordings he made at the very end of his life. Sarasate “took pride in rushing [the *Preludio*] to death in the shortest possible time,” as in his turn-of-the-century recording.⁷ There was a long nineteenth-century tradition of playing the E-major *Preludio* with accompaniment reflected not only in Schumann's accompaniment but also in performances such as that by the nineteenth-century virtuoso Dame Wilma Norman-Neruda (1838–1911), accompanied by the Berlin Philharmonic conducted by Joseph Joachim in the 1880s, and another celebrating the dedication of a new building for the Berlin Hochschule in which no fewer than forty violin pupils performed the *Preludio* in unison, backed by Schumann's accompaniment. The violinist-composer Fritz Kreisler (1875–1962) published his own accompaniment to the E-major *Preludio* early in the twentieth century.

Deciding How to Analyze Rhythm in Bach's Music

The traits that differentiate Bach's rhythms and phrasing from nineteenth-century music affect the very language and concepts—the analytical tools—we use to conceptualize music of the Baroque period. Bach's fully active metric hierarchies do not easily parse into the articulated phrasing patterns that were developed from the late eighteenth century onward to deal with music since the Classical era.

The changes in rhythmic and articulative style between the Baroque and later music have been acknowledged by candid comments of major theorists. Heinrich Schenker, for instance, in his final treatise, *Free Composition*, illustrates his interpretation of phrase rhythm in a large number of excerpts by Haydn, Mozart, Beethoven, Chopin, Mendelssohn, and Brahms.⁸ Then Schenker turns to the opening of Bach's C#-minor Fugue, *Well-Tempered Clavier*, vol.1, and suggests but immediately questions a series of continual metric reinterpretations at each subject entry, as illustrated in Example 5-10: “As long as musical content moved principally in imitations of canonic and fugal forms, it was somehow illogical to presuppose a specific metric scheme. Each of the numerous imitations, after

Example 5-10. Schenker, *Free Composition*, Fig. 149/8a.

all, involved reinterpretation. Where would we find ourselves if we were to pursue the idea of reinterpretation in the manner indicated [in Example 5-10]?⁹ Schenker does not suggest an answer to this troubling question. More recently, William Rothstein takes note in the preface to his study of *Phrase Rhythm in Tonal Music* of the “virtual exclusion of Baroque music from this book . . . I simply do not understand Baroque phrase rhythm as well as I think I understand rhythm in later tonal music.”¹⁰ The reason for these difficulties lies, as Rothstein continues, in “the profound differences that exist between the phrase rhythms of the Baroque and those of Classic and Romantic music.” The analytical tools that were developed during and after the Classic period to explain Classic music—notions of periodic phrasing and the like—simply do not produce musical results when applied to much Baroque music.

A large part of the reason for this lies in the difference between the metric hierarchies of Baroque and of later music. In Paganini’s *Moto perpetuo*, in Gounod’s “Ave Maria,” and in Schumann’s accompaniment to the E-major *Preludio*, there are relatively uninteresting metric levels between the excitement of the surface rhythms and the lyrical flow of the underlying phrase rhythms, promoting the sense of a lyrical nineteenth-century texture. In the metric hierarchy of Bach’s orchestration of the E-major *Preludio*, no such gap exists, since every level offers interesting activity. And Bach takes care to create such multileveled activity even in the unaccompanied version of the *Preludio*—and in his other movements that feature continuous sixteenths.

Binary Form and (vs.?) Increasing Levels of Activity

The differences in rhythm between Baroque and nineteenth-century styles extend beyond the relatively local levels of surface rhythm, meter, and phrasing to the very largest rhythmic levels of a piece: to “form” or the sequence of sections of a movement through time and the processes that motivate that sequence. Once again, the analytical tools developed early in the nineteenth century to describe and explain form in the music of the Classical composers do not work that well when applied to Baroque music.

The *Presto* of the G-minor Sonata has two repeated sections—two “reprises,” as eighteenth-century theorists would have called them. When

Measures:	: 1 — 54	: : 55 — 136	:
Sections:	: A B (= cad. in v)	: : A' B' (= cad. in i)	:
Keys:	: i — III — v	: : on V — iv — i	:
Notes:	Both halves begin similarly, but with inverted motives. The cadence (approach and conclusion) that ends the second half is a modified transposition of the cadence that ends the first half.		

Figure 5-6. “Binary form” in the *Presto*.

we nowadays look at a movement like this, we categorize it as a type of binary form. Figure 5-6 lays out the outer features of this form as it appears in this movement.

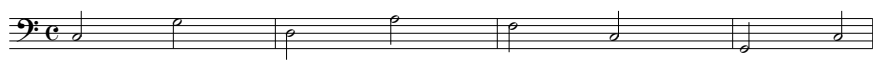
As taught by innumerable textbooks published during the past two centuries, the form is clearly binary because of the two sets of repeat signs. As in many such movements by Bach, each large section begins with the same thematic material and each large section ends with similar cadential material. The middles of each half—the material between the opening and cadence—differ somewhat between the two large reprises. Also as is ubiquitous in Bach’s two-reprise movements of any substantial size, the two reprises have opposite tonal orientations. The first reprise moves from tonic to nontonic keys (here from G minor to B \flat major and then D minor), while the second moves conversely from being away from the tonic to cadence in the tonic (here from beginning on the dominant to eventually being in the tonic).

Edward T. Cone has pointed out that in such Baroque binary forms the combination of key scheme and tonal orientation creates a permutational relationship between the sections.¹¹ Every time the end of a reprise leads into the beginning of a reprise, the cadential material leads to some form of the opening thematic material, but with a different tonal relationship. When the first repeat is taken, the cadence proceeds to the opening music in a nontonic-to-tonic (NT \rightarrow T) relationship; the next time the first reprise ends, the same thematic events occur as NT \rightarrow NT. When the second repeat is taken, the same thematic events occur once again, but now as T \rightarrow NT. As a result, three of the four possible tonal interactions occur: NT \rightarrow T, NT \rightarrow NT, and T \rightarrow NT. The only possibility that does not occur is T \rightarrow T, which would happen only if the entire movement were immediately repeated.

The permutational aspect of the form relates such “Baroque binary” movements to all the aspects of permutation that were frequently discussed by eighteenth-century musicians. For instance, Bach’s favorite thoroughbass manual, that by Friedrich Erhard Niedt (1674–1708), teaches the transition from simple, block-chord thoroughbass realizations to the creation of real compositions by listing dozens of possible melodic variants to elaborate every interval and applying these variants to unadorned

Example 5-11. Friedrich Erhard Niedt, *Musicalische Handleitung*, 2d ed., part 2 (Hamburg, 1721), chapter 3; English translation by Pamela Poulin and Irmgard Taylor as *The Musical Guide* (Oxford: Clarendon Press, 1988), pp. 88 and 90: (a) original bass line; (b) ornamented bass line.

a.



Viewing the interaction of themes and keys as permutational raises questions about the whole nature of musical “form” in such movements. The topic of musical form as we know it arose around the turn of the nineteenth century from theorists’ attempts to deal with the regularities that were apparent in recent instrumental compositions. This was the historical period in which discussions about music took a decidedly new turn. Previously, vocal music was deemed a higher genre than purely instrumental music and musical meaning was often considered in terms of the expression of the words. The essence of this position is encapsulated in the famous remark of the French scholar Bernard le Bovier Fontenelle (1657–1757), who asked, “Sonata, what do you want of me?”¹⁷

But during the latter part of the eighteenth century, the notions of instrumental music as “absolute” music began to gain widespread credence, a development chronicled in two recent studies: one by Carl Dahlhaus (who concentrates on the notion of absolute music), the other by John Neubauer (who concentrates on the liberation of discourse about musical meaning from the belief that music’s primary power was in imitation of nature).¹⁸ A signal event in this transformation was the 1810 review of Beethoven’s Fifth Symphony by the writer and composer E. T. A. Hoffmann (1776–1822), a review that speaks at great length of the meaning of the music despite the absence of a text or of specific “tone painting” or “imitation.”¹⁹

Many forces propelled this transformation in musical aesthetics—forces that included changes in venues in which music was presented, changes in the social classes for whom concert music was important, and the new musical styles of important composers like Haydn, Mozart, and Beethoven (without whose creations there would have hardly been much impetus to redefine what purely instrumental music could mean). Although a full accounting of this transformation has yet to be written, interesting chapters have already appeared, including the studies of Dahlhaus and Neubauer just cited and the decision by Charles Rosen to precede technical discussions in his 1980 study, *Sonata Forms*, with a chapter on “Social Function.”²⁰ But even in the absence of a full study of this aesthetic transformation, it is clear that many of our basic attitudes toward concert music nowadays derive from that transformation in musical aesthetics and its effects.

One effect concerns as mundane a matter as the examples in “harmony” texts. As music began to be respected for itself and not merely as a background to the text, individual musical works rather than abstract examples began to take center stage. Through the early eighteenth century, thoroughbass manuals had simply laid out abstract examples, apparently based on the supposition that harmonies and chord progressions existed apart from any particular musical pieces. Most early- and mid-eighteenth-century treatises on harmony did the same, such as works by Jean-Philippe Rameau (1683–1764) from the 1720s through the 1760s and by Friedrich Wilhelm Marpurg (1718–95) in the 1750s and 1760s.²¹ During the years

of Beethoven's lifetime, books that resembled modern harmony texts first began to appear, analyzing musical pieces. The major harmony text published in 1771–76 by Johann Philipp Kirnberger (1721–83) (who had studied briefly with J. S. Bach in 1741) includes, among a large number of abstract examples, a comparison of 26 settings of a chorale melody by J. S. Bach.²² Abbé Georg Joseph Vogler (1749–1814), a theorist based in Mannheim, published volumes of musical analyses beginning in the 1770s.²³ And Gottfried Weber (1779–1839), the theorist who made Roman numerals the standard symbols for analyzing harmonic progressions, illustrated all progressions he discussed with numerous excerpts from well-known works in his harmony texts beginning in 1817.²⁴

At the same time, and spurred by the same aesthetic transformation, the notion of musical form began to take center stage. The theorist Heinrich Christoph Koch (1749–1816), whose multivolume treatise published in the 1780s–90s discussed harmonic progressions with abstract examples, analyzed phrasing and larger constructions with examples that resembled real compositions and quoted compositions by Haydn and others.²⁵ The Czech-German musician Anton Reicha (1770–1836), who knew Beethoven when they were both boys in Bonn and was a central composer and theorist in the Paris Conservatory for decades, discussed a wide range of standard musical forms in the early nineteenth century in terms that we easily recognize today.²⁶ Similar discussions appeared in the works of Carl Czerny (1791–1857), a pupil of Beethoven.²⁷ And the German theorist Adolf Bernhard Marx (1795–1866), who taught in Berlin for many decades, categorized musical forms, establishing much of the nomenclature that still characterizes textbooks on forms.²⁸

The notion of musical form is predicated on the ideas of melodic/thematic contrast and on separate sections with distinct formal functions (expository, developmental, recapitulatory). As these notions became a standard part of musical knowledge, they were applied retroactively to Bach's music. But this endeavor is inherently anachronistic. Bach's music was written before the advent of the articulated phrasing that Koch and later theorists described and before the advent of large formal structures with separate sections that offered distinct formal functions. Many of Bach's movements are structured in ways fundamentally different from the Classical-era forms: as preludes built from thoroughbass patterns, as fugues, as seemingly "formless" structures (such as toccatas or movements like the *Siciliana* of the G-minor Solo-Violin Sonata), and as ritornello structures.

There are, to be sure, Bach movements that seem more amenable to being analyzed with Classical-era formal tools: especially the binary movements from suites and sonatas—movements like the *Presto* of the G-minor Sonata. As the formal diagram for the *Presto* given previously shows, there are indeed formal parallels between the sections: both halves begin with the same thematic material, both end with transposed cadences, and the portion after the double bar wanders tonally and seems to develop more thematic material than occurs in the first half of the movement.

Heightened Activity and Structure in the Presto

But as with the earlier three movements of the G-minor Sonata, the principle of continually heightened activity is more revealing than these rather superficial similarities between the *Presto* and later binary forms. Every musical element that appears in the first half of the movement recurs in the second half, recomposed to heighten the level of activity. And within each half, each new element is more active than its predecessors, right up to the final cadence. As a result, both on the local level (the succession of ideas within each half) and on the larger level (the way the second half intensifies recurring elements from the first half) the levels of intensity are heightened.

Example 5-12 lays out various parallel elements in the two halves of the *Presto*. In each case, the element appears in the second half of the movement more intensely than in the first half. The initial arpeggio at the beginning of the movement (mm. 1–4 in Example 5-12a) proceeds downward, spelling out the motto voicing of the tonic chord of the entire sonata; with the high B \flat , this arpeggio announces the registral limits of the entire first half of the *Presto*. The corresponding arpeggio that begins the second half ascends, quickly breaking through that registral peak to attain the highest note of the entire *Presto*. The harmony is dominant, not tonic, pushing ahead.

The *Presto*'s next element, in Example 5-12b, offers the movement's first harmonic motion: tonic–dominant–tonic (imitating a perfect cadence, as Rameau would have explained in the *Treatise on Harmony* that he was writing as Bach composed this sonata), outlining harmonic stability. Its recurrence in mm. 59–67 is anything but stable: the two-measure pacing of mm. 5–9, with its single ascent and descent within each pair of measures, expands into a four-measure pacing in mm. 59–67 with several registral undulations; the key now changes from tonic to subdominant; and the dissonance level heightens as the two dominant chords (the D chord in mm. 59–61 and the G chord in mm. 63–65) display themselves as full dominant ninths (even though the ninth resolves within the dominant each time before the chord moves), not the dominant triad of mm. 6–7.

Indeed, the chord progression in mm. 59ff. corresponds exactly to what Rameau discussed as the motivation for harmonic movement. Rameau believed that consonant triads had little motivation to progress to other harmonies; only dissonances, such as the seventh of a dominant chord, impelled a chord toward a new harmonic goal.²⁹ According to this view, the D-major triad in mm. 54–59 adds a seventh (and ninth) in mm. 60–61 to propel it toward its goal of G; the G chord, which starts as a minor triad, transforms itself into a dominant by adding a seventh (and ninth) and raising its third to become a leading tone in mm. 64–65 to propel itself toward its C-minor goal.

Example 5-12. Bach, Sonata in G Minor, *Presto*, parallels between the two halves: (a) mm. 1–5 and 54–59; (b) mm. 5–9 vs. 59–67; (c) mm. 9–17 vs. 67–74; (d) mm. 25–312 vs. 75–82, with Schumann's accompaniment; (e) mm. 17–25 vs. 83–95; (f) mm. 43–54 vs. 121–36 (and its underlying counterpoint), with Schumann's accompaniment.

a.

1
i|

54
V|

b.

two-measure units: down - up

5
G minor|

four-measure units: up - down - up - down

59
G minor| C minor|

65
.....|

c.

9
up
up
up

67
up
down
down

Example 5-12. (continued)

d.

25

75

30

80

f

p

cresc.

f

Example 5-12. (continued)

e.

17 21

B♭ maj.:

83 87

B♭ maj.: G min.:

91

f.

43

fp *cresc.*

49

f

121

cresc.

Example 5-12. (*continued*)

f.

The musical score consists of two systems. The first system contains measures 126 through 130. The second system contains measures 131 through 135. The music is written for violin and piano. The piano part features a consistent eighth-note pattern in the right hand and quarter-note patterns in the left hand. The violin part has a more complex melodic line with various intervals and rests. The key signature is B-flat major (two flats), and the time signature is 3/4. The tempo/mood is marked 'f' (forte).

The next element, in Example 5-12c, seems to be a simple transposition when it recurs in the second half. But because it occurs a fifth lower on its recurrence, it runs into the lower registral limit of the violin and therefore must be less regular in its figuration: the F in m. 72 and E \flat in m. 74 are an octave higher than they would have been in a direct transposition. Such details may seem like an unfortunate result of the violin's registral limits, but it is striking that Bach, who was a fine violinist, seems to run into such registral limits primarily on restatements of such patterns, turning a registral disadvantage into a compositional advantage that promotes heightened activity.

The immediately following passage in the second half of the movement brings back a slightly later portion of the first half of the movement, as shown in Example 5-12d. In the first half of the movement, the music in mm. 25–32 expresses a closed progression in B \flat major, beginning and ending on a tonic chord. The recurrence in mm. 75–82 expresses a single key but begins off the tonic chord, creating a single-minded progression toward a new goal.

The second half then doubles back to pick up the preparation for the music in B \flat from the first half. As shown in Example 5-12e, mm. 83–95

greatly intensify the simpler figuration of mm. 17–25. Not only are the patterns expanded and interspersed with other figurations, but also the direction of the pattern reverses between mm. 83–85 and 87–89. Furthermore, whereas there are only consonant triads from a single key in mm. 17–25, mm. 83–95 feature a change of key and many seventh chords.

The process of bringing back intensified parallel passages is itself greatly intensified approaching the cadence that ends each half of the movement. Example 5-12f shows the sequence in mm. 43–46 that prepares for the precadential dominant pedal during the first half of the movement and its dramatically intensified return in mm. 121–27. On its recurrence, the sequence is nearly twice the length, ascends rather than descends, is more irregular in figuration (as shown by the underlying counterpoint), and includes more chromaticism—even outlining an upper-voice diminished octave from E to E \flat .

The final cadence itself is also intensified on its recurrence. The dominant pedal of mm. 47–49 recurs as an ascending bass scale in mm. 129–31. Here again (as with mm. 9–17 versus mm. 67–74 shown in Example 5-12c) Bach has bumped into the lower registral limit of the violin—he could not place a low F in m. 47 parallel to the low B \flat in m. 129. Once again, he used the more dramatic version for the recurrence, with a stable pedal in the first half of the movement but an ever-ascending bass in the second half. Even the seemingly slight alteration of the antepenultimate measure (m. 134 versus m. 52) serves to heighten the drama: whereas the bass leading tone C \sharp in m. 51 resolves to a bass D in m. 52, the bass F \sharp in m. 133 moves, if at all, to a G in the higher octave in m. 134.

In addition to participating in the heightening of activity between the halves of the movement, each figuration shown in Example 5-12 also participates in an intensification within each half of the movement. Consider harmonic rhythm. Each half of the movement begins with five measures on a single harmony (mm. 1–5 and 54–58 in Example 5-12a); such a sustained harmony never happens elsewhere. The relatively uniform measure-long patterning of repeated figurations in many places, like mm. 9–11 and 67–69 in Example 5-12c, contrasts with the much more complex figurations in mm. 43–46 and 121–27 in Example 5-12f.

As a result, both within each half of the movement and between these halves the ruling compositional principle is heightened activity. It is thus not surprising that early-eighteenth-century treatises discuss issues like permutations of figuration (which relates to heightening activity), whereas discussions of binary musical forms (which relate to sectional balance and articulated phrasing) are largely absent. Early-eighteenth-century theory discussed only the most superficial features of such binary forms, ignoring the marriage of tonal motion and thematic design that later ages concretize as theories of form or structure.³⁰ In sum, the two halves of the *Presto* offer the characteristics of Bach's other parallel-section works discussed in chapter 4.

Schumann's Interpretation of the Form of the Presto

Decisions on the nature of form in the *Presto*—whether the movement is essentially in a nineteenth-century binary form or exemplifies a process of continual intensification both within and between the reprises—are by no means academic. They affect how we interpret the music as performers and how performers transmit that interpretation to listeners and analysts.

Just as Schumann's accompaniment to the E-major *Preludio* (discussed earlier in this chapter) differs from Bach's orchestration in its presentation of rhythm and meter and Schumann's accompaniment to the *Presto* of the G-minor Sonata reflects the same features, his accompaniment to the *Presto* also reflects a nineteenth-century vision of the "form" of that two-reprise movement—a vision that is at odds with the notions of continual intensification offered in this chapter.

As a mid-nineteenth-century composer, Schumann saw Bach's two-reprise *Presto* as an instance of the binary forms he frequently composed: simple binary forms and sonata form. When Schumann worked out an accompaniment of parallel passages in the two reprises, he fit Bach's music into those forms. Consider, for instance, his handling of the end of the two reprises, which diverges sharply from Bach's conception. The parallel ends of the two reprises in Bach's *Presto* appear in Example 5-12f with Schumann's accompaniment. Within both reprises, these passages in Bach's violin solo represent a higher level of activity than previous music (as discussed above); and the parallel passage in the second reprise is considerably more active than that in the first reprise.

Schumann does realize that the sequences in both passages are more active than previous music: for mm. 43–46, his accompaniment reflects the more active pattern by means of the staccato eighth-note harmonic rhythm. But where Bach's pattern is notable for its evenness (the same figuration in each measure and the implicit descent through similar harmonic changes in each measure), Schumann's accompaniment, by changing the type of harmonic progression in each measure, adds an unevenness that obscures the smoothness of the violin sequences. And whereas Bach composed the parallel passage in the second reprise (mm. 121–27) to be more active (with a more complex internal pattern and with the more dramatic ascent replacing the descent), Schumann makes it less so: legato instead of staccato, with a slower harmonic rhythm, and with regular two-measure sequences (instead of the irregular harmonic changes he provides for mm. 43–46). In the approach to the final cadence, where Bach replaces the beginning dominant pedal in the first reprise (mm. 47–49) with a relentlessly rising bass throughout the entire passage in the second reprise (mm. 129–33), Schumann obscures the driving bass ascent in the second reprise by creating a tonic pedal. In essence, where Bach saw these passages as the climax of each reprise and saw the second

passage as a heightening of that climax to conclude the entire movement, Schumann saw the end of the second reprise in terms of a recapitulatory gesture—a diminution of the level of intensity appropriate to the ending of the movement.

Bach and Schumann also differ on the roles of the main keys of each reprise. Once again, Bach hears the parallel reprises that explore materials in ever more complex ways. Each reprise presents three main keys: G minor, B \flat major, and D minor in the first reprise and G minor (starting on the dominant), C minor, and G minor in the second reprise. The two composers' treatment of the middle key of each section varies the most. For Bach, the music in the middle key in both reprises intensifies previous music and the parallel music in the second reprise intensifies that in the first reprise. The main B \flat music in the first reprise is a closed phrase that begins and ends on the tonic (mm. 25–32, shown in Example 5-12d), prepared by a modulating sequence (in mm. 17–24) that leads to the tonic of B \flat , and ending with a cadence in that key. The parallel music in the second reprise (mm. 75–82, also in Example 5-12d) is a phrase that modulates to C minor only in its second measure.

Schumann probably viewed these two passages in terms of their possible roles in a sonata-form structure. He probably heard the music in B \flat in the first reprise as the beginning of the second theme in a three-key exposition (I–III–v), whereas the music in C minor was for him part of a development section. When he gets to B \flat , he adds a bass pedal to slow down the pacing, as if to make it a lyrical second theme. Instead of participating in the gradually increasing activity levels of the first reprise, the music now is a point of relaxation akin to what commonly happens at the beginning of the second theme in a nineteenth-century sonata-form movement. Schumann also suppresses the cadence on B \flat in m. 32 with a chromatic deceptive progression that reduces its independence as a key.

In the second reprise, Schumann ends the music in C minor in mm. 81–82 with a clear cadence (reinforced by the *fortes* in mm. 81 and 82). For Bach, the two reprises are parallel in structure, with the second more complex; B \flat major and C minor stand in parallel positions, but C is less stable than B \flat . For Schumann, the model for a large movement with two reprises is sonata form, in which the two reprises are not parallel: the first reprise presents themes in two keys and includes transitions and other passagework, while the second reprise is a development (in which a foreign key may be established) and a recapitulation. Accordingly, Schumann both tried to enhance the sense of a relaxing arrival on B \flat in the first reprise and weakened the status of B \flat by aborting the cadence. Where Bach created progressive intensification within two parallel reprises, Schumann heard sections that corresponded to the musical forms of his age.

Performance Issues in the G-minor *Presto*

This chapter compares the *Presto* of the G-minor Sonata—and, by analogy, all the continuous-sixteenth-note movements in the solo sonatas—to nineteenth-century perpetual motions. It continues by relating the apparent binary form of the *Presto*—and, once again by analogy, the apparent binary form of all the two-reprise movements in the solo sonatas—to early-eighteenth-century compositional principles that precede the development of the notion of “form” as we have understood it for the past two centuries.

Including these perspectives in their thinking will inevitably affect violinists preparing the movement for performance. There is, of course, no single “correct” way to perform any piece of music. And any thoughts introduced in the present discussion are only intended as suggestions to stimulate a violinist’s imagination.

Recordings of the movement vary fairly widely in tempo. Often violinists known for extremely different styles of playing choose nearly identical tempos. For instance, two of the slowest recordings are one of the earliest recordings (by Yehudi Menuhin in 1935) and a performance by one of the violinists most concerned with replacing the legacy of nineteenth-century violin playing by a return to greater historical authenticity (Jaap Schröder), both of whom recorded the *Presto* at just under 210 eighths per minute (just under 70 per measure). Likewise, among the fastest recordings are those by Gidon Kremer, who averages 263 eighths per minute (about 88 per measure), and Joseph Szigeti, who averages 247 eighths per minute (about 82.5 per measure).³¹

A striking feature common to almost all recordings is the uniformity of bow strokes used throughout the movement, despite all the changes in surface figuration. Exceptions are most obvious in Jascha Heifetz’s 1935 recording, which includes a much wider palette of bow strokes in the second reprise, and Jaap Schröder’s recording, which projects different affects for the various sections of the movement.³²

The uniformity of bow stroke and affect of most recordings approaches the implicit ideal behind the nineteenth-century *moto perpetuo* of the performer as a machine, producing an absolutely regular consistency of great speed and control despite the varying demands of different passages within a piece. To be sure, performances that attain that ideal are hair-raising—think, for instance, of Heifetz’s unsurpassable tempo of sextuplets in his 1955 recording of the first movement of the *Suite*, op. 10, by Christian Sinding (1856–1941).³³ The speedy recordings of the *Presto* of the G-minor Sonata by Kremer and Szigeti—recordings that maintain their fast pace across all the changes in figuration—evoke the same ideal. The great nineteenth-century violin virtuoso Pablo de Sarasate made a tradition of performing the E-major *Preludio* in this manner, as witnessed by a recording cited earlier in this chapter. Is that ideal appropriate, however, for this *Presto*, with its continual heightening of activity levels and its wide range of figurations?

Another quite different performance tradition of the nineteenth and early twentieth centuries embraces a great deal of tempo shift, both above and below the basic tempo of a movement. As already noted in chapter 2 of this book, bias against rubatos over the basic tempo is a fairly modern phenomenon, arising only in the twentieth century.³⁴ I see no reason to believe that in ages prior to the widespread use of the metronome there was any way that performers were even fully aware of their divergences over time from the basic tempo of a movement. (After all, anyone who has ever practiced with a metronome is aware of the wizardry of that marvelous invention, which seems always to speed up and slow down at exactly the same places!)

The predilection of performers for varying tempos surely extended to performances of Bach's unaccompanied violin works. As noted in chapter 2, Joseph Joachim's recording of the *Adagio* of the G-minor Sonata includes noticeable tempo changes. And Adolf Busch (1891–1952), in a 1929 recording of the *Chaconne* (as part of a recording of the entire D-minor Partita), takes different passages at a fairly wide range of tempos.³⁵

The Finales to the A-minor and C-major Sonatas

Like the *Presto* of the G-minor Sonata, the last movements of the two other solo-violin sonatas are in fast tempos with fast rhythmic values throughout (sixteenths and thirty-seconds in the A-minor *Allegro* and sixteenths with occasional eighths in the C-major *Allegro assai*) and feature two reprises, the second of which roughly follows the musical materials of the first, but intensified. As a result, each second reprise is longer than the comparable first reprise (10 measures longer in the A-minor *Allegro* and 18 measures longer in the C-major *Allegro assai*), because both of expanded materials and interpolations of new materials.

As we would expect of Bach, within these overall similarities each movement offers unique material and works with that material in unique ways. In the A-minor *Allegro*, most patterns in the first reprise recur in significantly more complex forms in the second reprise. The opening figure in m. 1, for instance, is a close-position arpeggio and scale but recurs with an octave leap and a neighbor figure in m. 25 (which places the clashing interval G–D# on consecutive eighths on the second and fourth beats, replacing the consonant E–C in the parallel positions in m. 1). The sixteenth-plus-thirty-seconds rhythm lasts only two beats in mm. 3–4 but extends almost to the very end of the measure in mm. 27–28. The regular up-and-down arpeggios of mm. 5–6 with the low and high notes on the beats recur in mm. 29–30 as irregular arpeggios with melodic peaks consistently on the second sixteenths of the beat. Similar intensifications elaborate most of the other patterns as they recur.

On a larger scale, the first reprise lays out two tonal areas, each of which clearly expresses its tonic as soon as the key arrives: i in mm. 1–11

and v. The second reprise, by contrast, uses the same thematic material to roam through four separate tonal areas, all of which except the first avoid a strong statement of their tonic chord for a while: v in mm. 25–33, ♭VII in mm. 34–36 (with a weak cadence in the middle of m. 36), III in mm. 37–44 (with a cadence in the middle of m. 44), and i in mm. 45–58. The closing key of the first reprise features two cadences (in mm. 19 and 24), but the second reprise features three cadences: in the middles of mm. 53 and on the downbeat of m. 56 and then that fantastically imaginative chromatic passage in mm. 56–58—the sole passage marked *piano* in the entire solo-violin cycle that is not part of an echo effect—that leads to a transposition of the cadence that ended the first reprise.

In the C-major *Allegro assai*, the two reprises contain more literal transpositions than in the A-minor *Allegro*. Thus the first dozen measures of the second reprise are an absolutely literal transposition of mm. 1–12. Likewise, the closing six measures of the two reprises are literal transpositions of each other—but with one significant alteration. These measures in the first reprise stubbornly insist on maintaining the minor form of the dominant, changing to the more typical dominant major only in the very last measure, as if presenting a Picardy third in a movement in the minor key that had modulated to the minor dominant (like the end of the first reprise in the G-minor *Presto*). In the second reprise, Bach changes to the major mode one measure earlier, even inserting a cautionary natural sign (one of the very few cautionary accidentals in the entire manuscript) to make absolutely clear that the sonata ends in the major mode.

But despite these parallelisms, the second reprise extends and intensifies music from the first reprise in many ways. Mm. 1–12 lead to a reinforcing cadential progression in the tonic in m. 14, whereas the subsequent music in the second reprise omits anything parallel to mm. 13–14, instead continuing the preceding material and then using parallel materials from the first reprise to move through several new tonal areas. Thus the dominant pedal in mm. 21–26 is still in the original tonic key, whereas the parallel passage in mm. 69–74 is on the dominant of ii. And the soaring stratospheric dominant pedal in mm. 89–92—reminiscent of several of the arpeggiating and string-crossing dominant pedals earlier—forms one of the highest and most virtuosic passages in the entire cycle of solo-violin works.

The Partitas

Bach's solo-violin cycle alternates between sonatas and series of stylized dances. Chapters 2–5 of this book study the first sonata in detail and comment on the two others, touching on a number of principles that concern the structure and aesthetics of Baroque compositions and of Bach's own style. This chapter surveys some aspects of the three solo-violin partitas.

Series of Dance Movements

Whereas the three solo sonatas all contain four movements in the same order (a slow movement and fugue that form a prelude-fugue pair, a different sort of slow movement in some sort of parallel-section structure, and a fast finale with two reprises), the three partitas differ considerably from one another in their number and type of movements. The D-minor Partita has five movements, the E-major seven, and the B-minor eight. But these numbers do not accurately reflect the variety of these pieces. The D-minor Partita has the fewest movements yet is by far the longest because it ends with the monumental *Chaconne*. (Indeed, the D-minor Partita has fewer movements than any of Bach's keyboard suites or partitas yet lasts longer than any of them.) The B-minor Partita includes the most movements yet has the fewest dance types, since four of its eight movements are "doubles" (or variations on the preceding dance).

All in all, the partitas comprise 20 movements of 11 different types: nine types of dances (two each of allemandes, bourrées, correntes, sarabandes, and minuets and one loure, gavotte, gigue, and chaconne) plus one prelude and four doubles.¹ And in those dance types that recur, the two instances often contrast significantly with each other. The *Allemande* in the D-minor Partita features a variety of steady rhythms (mostly sixteenths and sixteenth-triplets, with occasional pairs of thirty-seconds), whereas

the *Allemande* in the B-minor Partita sports a profusion of irregular rhythms. The *Corrente* of the B-minor Partita presents steady eighths, whereas the *Corrente* of the D-minor Partita is entirely in triplets and dotted rhythms. And the musettelike second minuet of the E-major Partita differs considerably from the more actively rhythmic first minuet (as with the similarly contrasting characters of the minuet pair in Bach's B♭-major keyboard Partita, the bourrée pair in his A-minor *English* Suite, and the gavotte pair in his G-minor *English* Suite). Furthermore, dances with separate titles may actually be of the same type. The loure of the E-major Partita is very close in rhythm and character to the second bourrée of Bach's keyboard *French* Suite in G Major.

This varied creativity is not surprising, for it also characterizes Bach's partitas and suites for keyboard. The six *English* Suites, six *French* Suites, and six partitas range from 6 to 10 movements each and contain nine different dance types (allemande, bourrée, courante, gavotte, gigue, minuet, passapied, polonaise, and sarabande), six different titles for introductory movements (fantasia, overture, preambulum, prelude, sinfonia, and toccata), and six other types of movements (air, aria, burlesca, capriccio, rondeau, and scherzo).

Indeed, other than remarking that the first two dance movements in all 18 keyboard collections are an allemande and a courante, there is hardly a single assertion that applies to all. For instance, almost all end with a gigue, but the C-minor Partita ends with a capriccio (and the B-minor violin Partita ends with a bourrée and the D-minor violin Partita ends with the *Chaconne*). And almost all the keyboard suites and partitas contain only movements in a single key, but the second minuet in the F-major *English* Suite is in D minor (and the second members of pairs of dances in the *English* Suites—the second bourrées of the A-major and A-minor Suites, the second gavotte of the G-minor Suite, and the second passapied of the E-minor Suite—change mode). In sum, just as Bach's *Brandenburg* Concertos explore the widest range of concerto types and just as his *Well-Tempered Clavier* explores the widest range of fugue types, Bach's cycles of dance collections survey an immensely broad spectrum of the dances and related genres of his age.

Yet amid the marvelous profusion of creative imagination in the violin partitas, some general principles do apply (at least to most movements). Leaving aside the E-major *Preludio* and the *Chaconne*, all but one of the dance movements have two reprises. (The exception is the *Gavotte en rondeaux* of the E-major Partita, which is, as its title indicates, a rondo with a recurring eight-measure refrain that begins and ends the movement.) Most second reprises roughly parallel the first, as in the G-minor *Presto* and the finales of the two other sonatas discussed in detail in chapter 5. But some of these second reprises do feature a return to the opening music quite a bit after the double bar (such as the first minuet in the E-major Partita, where the opening of the second reprise is related to the opening of the minuet, but a literal return to the very opening appears 19 measures

later, or the *Bourrée* of the same partita, where the second reprise opens with a transposition of the opening, but a literal return leads to the final cadence). Thus the notions of parallel-section structure introduced in chapter 4 in connection with the G-minor *Siciliana*, the third movements of the other solo-violin sonatas, and related works and applied in chapter 5 to the two-reprise finales of the three violin sonatas apply to these movements.

Partitas as Variations

The Italian term “partita”—literally meaning “little part” or “little division”—is commonly understood nowadays simply as one of the terms for a sequence of dance movements. But an older meaning of the term remained in use in Bach’s lifetime: a set of variations.² Bach himself used the term in the plural for sets of variations on chorales.³ There is a sense in which the entirety or part of several movements of each violin partita are variations of one another.

This is most obvious in the four pairs of movements that constitute the B-minor Partita. The four dances—the *Allemande*, *Corrente*, *Sarabande*, and *Bourrée*—are each followed by a double. (Bach also wrote doubles for both *Courantes* I and II in the A-major English Suite and for the *Sarabande* in the D-minor English Suite.) The doubles in the B-minor Partita all feature continuous rhythms (eighths, sixteenths, or triplets) and tend to follow the outer voices and harmonies of the dance they vary rather closely. They occasionally adjust the register of the bass and sometimes impart a new color to the harmony.

Examples 6-1a and 6-1b compare the opening of the *Allemande* with the opening of its *Double*. Although the lowest line in the *Double* begins an octave higher than the bass of the *Allemande*, it still outlines a similar sequence of pitches. Both movements’ basses begin B–A#–B. But the *Allemande* then descends by step B–A–G, whereas the *Double* (which includes the B–A–G motion) slightly alters the motion to B–F#–G. Likewise, the top voices are quite similar, but not identical: both have an F# up-beat, F#–B–G and G–F# in the first three beats of m. 1, and so forth. But in m. 2, the *Double* returns to the high G on the second beat, while the *Allemande* abandons that melodic register by that point. On that second beat of m. 2, the *Double* also spells out the harmony more completely than the *Allemande*, specifying that the underlying harmonic progression moves in quarter notes, not halves.

Such comparisons of a dance with its double offer violinists two separate performance options. They may decide that the nuances in the double are not, in fact, present in the dance itself and should not affect performance of the dance, or they may decide that the double throws light on the dance and should indeed affect its performance. Consider, for instance, m. 2 of the *Allemande*. How does the F# seventh on the downbeat resolve? As a non-harmonic tone (a 7–6 suspension) to the E on the second beat without a

Example 6-1. Bach, Partita in B Minor for Violin Solo: (a) *Allemande*, mm. 1–3; (b) *Double* of the *Allemande*, mm. 1–3; (c) *Corrente*, mm. 1–3; (d) *Allemande*, mm. 8–9; (e) *Double*, mm. 8–9.

a.

b.

c.

d.

e.

change of harmony? Or to that E as a member of a new harmony? According to the first option, only with the arrival of A# in midmeasure is there a new harmony (the dominant) worth articulating. Hearing it this way, a violinist would probably stress the dissonant F#, relax on the resolution to E, and create a single gesture from that high F# through to the A# on the third beat. The *Double* interprets the harmonies and voice leading quite differently. There the second beat of m. 2 clearly outlines a C# half-diminished-seventh chord (ii⁷ in B minor) that resolves the preceding G-major-seventh chord (VI⁷) in a circle of fifths progression that leads to the dominant on the next beat (VI⁷–ii⁷–V). Transferring this reading back to the *Allemande* would encourage a violinist to mark the arrival on E more articulately and to ensure that the E–D–C# are connected as members of a single harmony—with the trill on C# performed so as to help this connection.

Performance options that are even more divergent arise in passages where the dance itself is ambiguous. For instance, m. 8 of the *Allemande* (in Example 6-1d) marks the arrival on a half-cadence in B minor, fol-

Example 6-2. Bach, Partita in B Minor: (a) *Allemande*, mm. 6–8: underlying thoroughbass and harmonic outline; (b) *Corrente*, mm. 6–10: underlying thoroughbass and harmonic outline.

The image contains two musical staves, labeled 'a.' and 'b.', showing the underlying thoroughbass and harmonic outlines for two pieces from Bach's Partita in B Minor.

Staff 'a.' represents measures 6–8 of the *Allemande*. It is in 3/4 time with a key signature of two sharps (F# and C#). The notation shows a treble clef with a melody line and a bass line. The bass line consists of whole notes: G2 (measure 6), F#2 (measure 7), and E2 (measure 8). Above the bass line, chords are indicated by numbers: 6 (measure 6), #4 2 (measure 7), and 6 (measure 8). The melody line has eighth notes and rests.

Staff 'b.' represents measures 6–10 of the *Corrente*. It is in 3/4 time with a key signature of two sharps (F# and C#). The notation shows a treble clef with a melody line and a bass line. The bass line consists of whole notes: G2 (measure 6), F#2 (measure 7), E2 (measure 8), D#2 (measure 9), and C#2 (measure 10). Above the bass line, chords are indicated by numbers: 6 (measure 6), #4 2 (measure 7), 6 (measure 8), 6 (measure 9), and 6 (measure 10). The melody line has eighth notes and rests.

lowed by what most violinists play as a fairly neutral triplet melisma that at the end of the measure still outlines the same harmony. But in the *Double* in this measure (in Example 6-1e), a progression that includes some dissonant chords enlivens this cadential dominant. Violinists choosing to hear the chords of the *Double* underlying the triplets of the *Allemande* will play the melisma anything but neutrally. As a result, the doubles either can be regarded as separate movements or can be viewed in the same light as Bach's keyboard arrangements of some of the solo-violin works, which add, as Bach's pupil J. F. Agricola explained, "as much in the nature of harmony as he found necessary."⁴

In addition to including close variations that are labeled "doubles," there is another sense in which many of the dance movements themselves are "partitas" or variations on one another. Consider the first two measures of the B-minor *Corrente* that follows the *Allemande* (in Example 6-1c). The melodic pitches may differ, but the bass line and harmonies are quite similar. Even more striking is the similarity between mm. 6-10 of the *Corrente* and mm. 6-8 of the *Allemande*, whose underlying thoroughbasses appear in Example 6-2. Both motions lead to half-cadences—the first major phrasing articulation in the movements. The underlying bass lines and harmonies are virtually identical. Similar underlying progressions link several of the movements in the D-minor Partita, as shown in Example 6-3, which focuses on the opening portion of the first reprise of each movement (and the theme of the *Chaconne*). The very openings of all five movements are strikingly similar in bass line, chords, and even voicings. The *Allemande*, *Corrente*, and *Gigue* share many parallels all the way through the motion to F major, with the faster movements (the *Corrente* and *Gigue*) adding elaborating harmonies at various points: the *Corrente*'s full dominant over the bass A (in m. 2) and the resolution of that dominant before returning to the G-minor-seventh chord of the *Allemande*; the *Gigue*'s use of parallel sixth chords to fill in the motion to its dominant in

Example 6-3. Bach, Partita in D Minor: (a) *Allemande*, mm. 1–6: underlying thoroughbass and harmonic outline; (b) *Corrente*, mm. 1–12: underlying thoroughbass and harmonic outline; (c) *Sarabande*, mm. 1–3: underlying thoroughbass and harmonic outline; (d) *Gigue*, mm. 1–10: underlying thoroughbass and harmonic outline; (e) *Chaconne*, mm. 1–5: underlying thoroughbass and harmonic outline.

a.

b.

c.

d.

e.

m. 4, expanding the D–B \flat –A bass line of the *Allemande*; the different expansions of the bass B \flat from m. 5 in the *Allemande* (mm. 7–9 in the *Corrente* and mm. 7–8 in the *Gigue*). The *Sarabande* takes a rather different course from the other movements after the opening progression, but it foreshadows the descending parallel sixth chords of the *Gigue* (circled in Example 6-3) before it goes its own way. Perhaps most striking is the manner in which the thoroughbass that underlies the *Chaconne* is closely related to the opening motions of the preceding movements.

Despite the fact that both the similarities between dances and their doubles (illustrated in Example 6-1) and the similarities between different dances (illustrated in Example 6-2) are types of variations, there is nonetheless a fundamental difference between these two variation techniques. The doubles are strict variations, in which melody, harmony, voice leading, harmonic rhythm, and phrasing remain quite similar to the model. The similarities between dance movements noted in Examples 6-2 and 6-3, by contrast, concern primarily the underlying thoroughbass progression—these variants differ in melody, in phrasing, and in some chordal inversions or progressions. These thoroughbass similarities that relate different dances in a single partita to one another are therefore similar to the sorts of relationships within and between movements in the G-minor Sonata (discussed at some length in chapters 2–5 of this book). Such relationships help to lend an overall harmonic color to each partita, giving the sense that the various dance movements belong together with another in a larger cycle.

These underlying thoroughbass relationships are hardly accidental. Bach, like many of his contemporaries, believed that thoroughbass was the basis of composition. Bach's composition pupils began by learning thoroughbass. And Bach's favorite thoroughbass treatise was the *Musicalische Handleitung* (Musical Manual) by Friedrich Erhard Niedt.⁵ Niedt's treatise first teaches how to realize a thoroughbass, then introduces dozens of patterns to elaborate any intervallic progression that might arise in a thoroughbass realization and demonstrates how to compose pieces by skillfully applying these elaborations to a thoroughbass. Niedt first takes a simple thoroughbass and composes a prelude, chaconne (!), and finale from it and then composes an entire partita of 11 dance movements from elaborations of a similar thoroughbass. Depending upon the meter and characteristic rhythms and phrase lengths of the various dances, Niedt presents the underlying thoroughbass in different ways. And depending upon the complexity, length, and tempo of the dance, Niedt shortens or lengthens the underlying thoroughbass, adds harmonies, changes chordal inversions to make cadences, and so forth. Might this portion of Niedt's treatise have suggested to Bach the idea of composing a partita whose various movements are somewhat related by similar thoroughbasses and which also includes an extended chaconne? To be sure, the dances in the D-minor Partita are somewhat more closely related to one another by their underlying thoroughbasses than the dances in the two other solo-

Example 6-4. J. S. Bach and W. F. Bach (?), Allemande in G (BWV 836).

This musical score is for the Allemande in G major, BWV 836, from the Notebook for Anna Bach. It is a two-staff piece in G major (one sharp) and 3/4 time. The score is divided into five systems, each containing a grand staff (treble and bass clef). The first system (measures 1-3) begins with a treble staff melody and a bass staff accompaniment. The second system (measures 4-6) includes a repeat sign. The third system (measures 7-9) continues the melody and accompaniment. The fourth system (measures 10-12) features a repeat sign. The fifth system (measures 13-15) concludes the piece with a final cadence. The notation includes various musical symbols such as notes, rests, accidentals, and repeat signs.

violin partitas, which makes the D-minor Partita the ideal one to conclude with a set of variations. But without further evidence, this idea must remain purely speculative.

What differentiates Bach's dances from Niedt's composition exercise is obvious: Bach's compositional genius. Whereas Niedt's dances just plod along, Bach's dances project a shape and direction that arises from the factors discussed extensively during the analysis of the G-minor Sonata in chapters 2–5. Bach builds the sections of movements so that they heighten activity; he creates the second sections of movements so that they refer back to the opening sections, often paralleling them in order while they build upon the musical ideas.

A Lesson by J. S. Bach in Composition

A composition exercise that J. S. Bach gave to his son W. F. Bach sometime after 1720 illustrates just these factors, teaching us how Bach worked to incorporate disparate compositional elements into a single compositional narrative with a gradual and continual heightening of activity levels. Example 6-4 contains this exercise.

At first, this Allemande seems to be quite a peculiar piece with three separate reprises. Most probably, J. S. Bach gave his young son Wilhelm Friedemann the first five measures to copy into his notebook (which explains, for instance, the missing beat in m. 4 in the original score). W. F. Bach then seems to have composed a second reprise (mm. 6–12), probably intending it as the conclusion of the piece. J. S. Bach probably then composed the much more satisfactory third reprise (or worked with W. F. Bach to create the third reprise) as a much more proper ending to the first reprise. As a result, we have the opening of a piece and two conclusions: one by an inexperienced pupil and then another, more proper ending, by the master.

The well-intentioned youthful enthusiasm of W. F. Bach's second reprise (mm. 6–12), unfortunately, does not compensate for the section's glaring compositional errors and immaturities. Wilhelm Friedemann, seeking to begin the second reprise with a bang, immediately jumps up to the highest register of his keyboard—hitting high C three times within the first two measures (and even including this high C as part of the mordent on B \flat in m. 6). He then introduces his idea of exciting music: the dramatic but utterly new chromatic scale in m. 7, which he places over a chromatically ascending bass. How better, he must have thought, to create excitement after the double bar? Unfortunately, he miscalculated the size of the interval to be filled by the chromatic scale in m. 7 and would have arrived on the F \sharp a sixteenth too early had he not inserted the extraneous A at the end of the second beat. More chromatic scales appear in mm. 10 and 11, where Wilhelm Friedemann once again had to turn around at the end of the scale, because otherwise the melody would have arrived on the wrong note on the following beat.

Further infelicities arise from the totally new figure in the left hand in m. 11, whose insertion causes the repeated cadence (mm. 10–11 and 11–12) to be shifted metrically by half a measure on its repeat. But that new left-hand figure in m. 11 is not the only new material in this reprise. Even the very first motive, the descending scale that opens m. 6, is new. To be sure, it outlines the same descending fifth A–D that ends the melody of the first reprise; but it is set with a new rhythm, register, and key and accompanied by a new left-hand rhythm in m. 6, so that any connection between the two descending A–D fifths is quite weak. Finally, amid all his care in creating new and exciting effects, Wilhelm Friedemann failed to notice that he had ended in the wrong key—his final cadence is in the dominant, rather than back in G minor!

In sum, this second reprise is a poor conclusion to the Allemande. It flits from one new idea to another without connecting these ideas to one another or to those of the first reprise. And it retraces the tonal motion of the first reprise (I–III–I–v) instead of moving toward a conclusion. Overall, it strives for momentary effects (chromaticism, high register, and so forth) without an overall argument.

Johann Sebastian's reworking of this material to create a proper conclusion—what appears as the third reprise—remarkably incorporates every one of young Wilhelm Friedemann's ideas but masterfully puts each idea in its proper place, both within this reprise and within the Allemande as a whole. Consider motives. M. 13 begins with Wilhelm Friedemann's new idea (from m. 6) but manages to relate it to both the conclusion of the first reprise and important elements from the opening of the first reprise (a) by keeping A–D in the same register as at the end of the first reprise and (b) by using the dotted-quarter/eighth-note left-hand rhythm to relate the melody and accompaniment to rhythms from mm. 1–3. In its new register, the resolution of the C–B \flat suspension in the middle of m. 13 is strongly reminiscent of the middle of m. 1, further relating the new idea to the opening of the Allemande.

Consider next the register and the chromaticism of Wilhelm Friedemann's mm. 6–7. Johann Sebastian's version rises almost as high as Wilhelm Friedemann's: to high B \flat , just one step short of C. But Johann Sebastian accomplishes this not by an immediate register shift unprecedented in the piece (as Wilhelm Friedemann had done), but by a steady ascent over three measures. Wilhelm Friedemann simply inserts the chromatic scale in m. 7 as a novel exciting element; Johann Sebastian builds chromaticism into the registral ascent by proceeding around the circle of fifths, gradually adding new chromatic notes. As a result, where Wilhelm Friedemann's chromatic scale is merely a colorful riff, Johann Sebastian's chromaticism leads to the much more distant A \flat in an F-minor chord in m. 15—the culmination of the registral ascent and also part of the directed motion toward the dominant in m. 17 (as part of a motion through the subdominant key of C minor in mm. 14–15).

And consider the final cadence. Wilhelm Friedemann once again used the colorful but somewhat undirected chromatic scale in m. 10 and then basically repeated the cadence after a new left-hand figure that shifts the cadence metrically. Johann Sebastian first uses a diatonic octave scale in m. 18 as a culmination of the descending motion within the main theme and also as a means of bringing the high register of mm. 15–16 down to the principal register of the piece. He then develops a continuous sixteenth-note passage in m. 19 as an intensification of the tag to the main theme (the third beat of m. 1, recurring as the first beat in m. 18).

Johann Sebastian's ending section picks up the continually intensifying elements of the first reprise and takes them to new heights. He shows that no compositional element need be truly extraneous; any notion—chromaticism, registral shifts, and the like—can belong to a piece, if only it grows out of previous material . . . and if it joins in the intensifying motion within each reprise and over the piece as a whole. We may not be able to hear the conversations between Wilhelm Friedemann and Johann Sebastian as the revisions of the second reprise were worked into the third reprise. But we can read the evidence as it exists on the page. Whether he was writing a solo-violin work, a keyboard suite, a fugue, or a concerto—or whether he was teaching his young son how to put exciting compositional notions properly into a well-ordered piece of music—Johann Sebastian was always the master composer.

The Dance Types

Bach's suites and partitas, even though they include numerous movements titled as dances, were hardly designed for dancing. The rhythms and phrasing are infinitely more complex than those of the more utilitarian dances that appear in the dancing instruction manuals of the time. As a result, it is not at all clear that the discoveries of scholars that concern the dance steps of the time give reliable advice for performing the dances in Bach's suites.

Within each dance type, Bach often adopted different procedures for individual movements. For instance, some of his allemandes feature sixteenth notes as the fastest values (such as the allemandes of the *French Suite* nos. 3, 4, and 6 in B Minor, E \flat Major, and E Major). But many other allemandes have occasional thirty-seconds (as in the first three *English Suites*), freely mix sixteenths, thirty-seconds, and sixteenth triplets (as in the *English Suite* no. 4 in F, the *Partita* no. 4 in D, and the D-minor Violin *Partita*), feature thirty-second notes as the predominant fast motion (as in the allemandes in the *Partitas* nos. 3 and 6 in A Minor and E Minor), or are predominantly in sixteenth triplets (as in the *Allemande* in the *Partita* no. 5 in G Major). And none of the keyboard allemandes approaches the rhythmic complexity of that in the B-minor *Partita* for Solo Violin, which

freely mixes continuity in dotted eighths and pairs of thirty-seconds, sixteenth triplets, occasional groups of thirty-seconds, and even “Scotch snaps” (single thirty-seconds each followed by a dotted sixteenth). All these allemandes can hardly be performed in a single tempo or with a single affect.

A similarly wide variety of rhythms characterizes all the other dance types that recur in any significant quantity. Sarabandes, for instance, are commonly thought of as having no upbeats and a stressed second beat. Indeed, chapter 5 of this book uses the term “sarabande rhythm” to refer somewhat loosely to a stressed second beat in 3/4 meter. The *Sarabande* in the D-minor Partita for Solo Violin does indeed exhibit stressed second beats caused by long notes on the second beats of many measures. But the *Sarabande* in the B-minor Partita for Solo Violin has a stressed second beat only in the penultimate measure of each reprise (which may be more the result of a hemiola rhythm that leads to the cadence than any accented second beat supposedly characteristic of the sarabande). And while most of the 18 sarabandes in the keyboard suites and partitas do frequently stress the second beats, the *Sarabande* of the A-minor Partita presents an entirely different rhythmic profile, with three-eighth upbeats to virtually every phrasing unit. If an accented second beat and absence of upbeats is a defining trait of a sarabande, this movement hardly seems to merit its title.

Similarly, the two bourrées in the violin partitas in B minor and E major are diametrically opposed rhythmically. The *Bourrée* of the E-major Partita accents many of the weak quarter beats, while the *Tempo di borea* of the B-minor Partita persistently accents the strong beats.

It is clear that studies of Bach's dance-type movements, as informative as they may be, simply cannot answer some of the most basic questions about performance of these movements—questions of tempo and performance style.⁶

Meter signatures and tempo markings do not provide definitive answers either. The *Allemande* of the B-minor Partita carries the meter signature C, while its *Double*, which has the same number of measures and closely follows its model in all matters, has a meter signature ♯. Should the *Double* be performed at twice the speed of the *Allemande*? The *Corrente* of the same partita is in 3/4 and carries no tempo marking; its *Double* sports the same meter signature and once again has the same number of measures in each reprise but is labeled “*presto*.” In addition, as already shown in Figure 5-4 (bottom), Bach began writing the *Double* with the short bar lines that he used in the *Corrente* but then rewrote the first bar line to make it a normal one and used normal bar lines throughout the remainder of the double. Did Bach believe that the “*presto*” marking obviated whatever he intended by the short bar lines? And what do those short strokes denote?

Scholars may debate these issues and await further scholarship before coming to a conclusion. But violinists must make decisions if they are to perform the works at all. Often violinists rely upon the performing tradi-

tions of earlier generations. But these performing traditions certainly do not extend back to Bach's age. As discussed in chapter 1, Bach's solo-violin works entered the concert repertoire of violinists only in the mid and late nineteenth century. That was an era in which the Beethovenian notion of a sonata determined the aesthetics of many multimovement works. Under the influence of such aesthetics, allemandes were viewed as analogous to first-movement sonata forms, sarabandes played the role of profound slow movements, other dances filled the position of a minuet or scherzo, and the gigue was heard as the equivalent of a fast finale.

It is, of course, not impossible that something like this view might have indeed been the performance tradition of the eighteenth century. But the long gap between the Baroque era in which these works were composed and the period a century or more later when they first joined the active concert repertoire precludes any sort of continuous performance tradition that connects the gestation of the works and their later performances.

This volume is premised on the belief that delving into the structure of the solo-violin works, considering them in relation to Bach's other compositions, and exploring them—to the extent it is possible to so do—without recourse to analytical, structural, and aesthetic notions that arose in post-Baroque eras will give violinists (and analysts and historians) new perspectives on the music. The notions of parallel-section form, of viewing thoroughbass as the primary support for the musical texture, of working with motivic ideas, and of heightening levels of activity as the primary rhetorical method seem to me the most pertinent concepts that will enable violinists to create exciting and appropriate performances. These are the common threads that typify Bach's style in pieces as diverse as preludes, fugues, parallel-section movements, ritornello movements, and two-reprise movements.

The *Chaconne*

It hardly needs be said here that the *Chaconne* has long been recognized as one of Bach's masterpieces. As early as the first half of the nineteenth century, when Bach's solo-violin works were still regarded primarily as "studies" (as discussed in chapter 1), Felix Mendelssohn singled out this movement for his accompaniment, quite probably to foster public performances in an age that deemed unaccompanied violin an incomplete performing medium.

One of the *Chaconne*'s signal traits is its length—most recorded performances are just under a quarter-hour. The late Baroque certainly has its share of compositions whose length is measured in hours: Handel's *Messiah*, Bach's *St. Matthew Passion*, and innumerable operas. But I do not know that any single individual movement in any of those works exceeds the length of the *Chaconne*. Bach's other great variation cycle—the *Goldberg Variations*—is quite a bit longer than the *Chaconne* but is clearly a

composite of its numerous individual movements, none of which exceeds in length the average movement in a Baroque suite or concerto.

Length is worth considering because artistic expression of a certain profundity—however that may be defined—is frequently associated with an artist's ability to capture an audience's attention on a grandiose scale. A three-foot-high pyramid would hardly have been appropriate for the burial of the pharaohs. Novels allow writers to plumb a spectrum of issues in detail and nuance that they cannot squeeze into a short story. A miniature or a small line drawing cannot contain the range of shadings of a large canvas. During the late eighteenth and early nineteenth centuries, composers developed a number of musical forms that could support a musical argument of considerable length. In particular, sonata form, with its large-scale tonal and thematic balances and its flexible periodicities that could extend to immense proportions and contain a wide range of musical contrasts and lengthy processes of statement, development, and transformation, became a vehicle that allowed composers to make significant artistic statements in their instrumental music.

But the Classical era's musical structures were not available to Bach. With rare exceptions, only in the compounding of individual movements was he able to create musical architectures of great size and scope—in his passions or in the *Goldberg* Variations in which the overall effect results from the combination of numerous juxtaposed but separate movements. The *Chaconne* stands almost alone among his creations for its bold attempt to sculpt a single continuous movement of monumental proportions. If it is remarkable that he dared to write such an enormous composition for solo violin, it is perhaps even more astonishing that he boldly decided to use a compositional design that excludes one of the primary resources in a Baroque composer's arsenal: tonal contrast—every four-measure phrase in the entire movement concludes with some sort of cadential motion that arrives on D.

But these two limitations that Bach set for himself—writing a movement on this scale for solo violin and writing a movement without any large-scale tonal contrasts—are major factors in creating the effect of the *Chaconne*. The enormity of the music that emanates from a four-stringed soprano-register instrument played by a lone performer is a major part of the *Chaconne's* effect—an aspect that Brahms surely realized when he created a piano arrangement for only the left hand. And the concentrated focus of the *Chaconne* grows in part from its unvarying tonality.

Some sort of variation was without doubt the best option for Bach to create a piece on this scale. For variation techniques—defined broadly—underlie his entire compositional process. As the reports of his composition teaching and Niedt's treatise inform us, all of Bach's musical textures arise from the elaboration of a thoroughbass. And as stressed throughout this book, his compositions in all genres—preludes, fugues, two-reprise movements, other parallel-section movements, ritornello movements, and so forth—arise from varying and intensifying the musical materials that

emanate from textures that themselves result from elaborations of thoroughbass progressions.

The *Chaconne* is a continuous series of variations on a thoroughbass and its related chord progression. At every level, various processes create heightened intensifications. Within the first statement of the four-measure theme, harmonies at first move in halves and quarters but then accelerate to steady quarters at the cadence. The melodic rhythms in this opening statement likewise speed up from the repeated opening (dotted quarter, eighth, quarter) to sixteenths. Similar processes are at work in many of the variations.

On a slightly larger scale, many of the variations occur in pairs, in which the second is quite similar to the first, but intensified. For instance, the opening eight measures comprise two statements of the theme, in which the second is identical to the first for three measures but broadens the registral span at its cadence and introduces the fastest rhythms yet: a pair of thirty-seconds which, combined with the preceding dotted eighth, foreshadow the predominant dotted rhythm of the next four variations. These four dotted-rhythm variations occur in two pairs: first with the moving part predominantly in the lower voices, then with a very similar melody in the top voice. The first pair is entirely diatonic, while the second pair introduces chromaticism for the first time in the *Chaconne* by transforming the essential bass motion into a descending chromatic tetrachord from tonic to dominant. In each of these pairs of phrases, the second introduces some heightened element absent from the first: m. 16 and its upbeat extend the length and dissonance level of the quick chordal motion that occurs in the comparable passage in m. 12 and its upbeat; m. 23 introduces a new chromatic tone (G \sharp) absent from the corresponding end of m. 19.

Bach, knowing he was laying out an extraordinarily long series of variations, carefully balanced the introduction of new elements with the relaxation of others so that he could always have further musical elements to intensify. For instance, during the first eight statements of the theme (mm. 1–32), the texture gradually diminishes from the three- and four-voiced chords that characterize the first two statements to the single-line writing of the eighth statement. This relaxation in textural density occurs while the rhythm gradually increases in speed, achieving steady eighths only in the seventh statement and steady sixteenths in the eighth statement. And this relaxation in textural density occurs while the level of chromaticism increases from the quite diatonic first four statements (which only include the notes of a D harmonic-minor scale and a single C \sharp in m. 3) to the descending chromatic tetrachord D–C \sharp –C–B–B \flat –A of the fifth statement, the same plus G \sharp in the sixth statement, and the introduction of F \sharp and E \flat in the eighth statement—which completes the chromatic scale. And this relaxation in textural density occurs while melodic spans widen from the tenth and ninth outlined by the melody in the first two statements to a span of just short of two octaves in the eighth statement. As a result, the eighth statement (mm. 29–32) features the fastest surface

rhythm and the widest melodic span yet, but several other musical elements are diminished from previous intensity to set the stage for further intensifications later.

Such processes of compensation, where one element moves to new intensity while others recede, continue for long stretches of the *Chaconne*. A few highlights: the ninth statement (mm. 33–36) slows down the surface rhythm to eighths but maintains the level of 11 different pitches (lacking only Eb) achieved in the previous statement (which lacks only C), widens the melodic span to two-octaves-plus-a-step, and introduces the largest skips yet. The next few variations, featuring steady sixteenths, gradually add an ever-widening array of bowing patterns, creating a wider palette of articulations than previously. And the fifteenth statement (mm. 57–60) reintroduces double-stops yet is entirely diatonic. When continuous thirty-seconds appear, they are at first slurred (in the seventeenth and eighteenth statements in mm. 65–72) and only later separately bowed (in the nineteenth statement in mm. 73–76) to provide more energy on each note.

Whereas many of the early statements are paired, later sections of the *Chaconne* work on a much larger scale. During the major-mode statements, for instance, statement 41 (mm. 161–64) casually introduces three repeated notes—an idea almost totally absent as a prominent element in the 40 preceding statements (even though it is anticipated by the repeated notes that appear in the melody of the first two measures of the opening two statements). In these measures (mm. 161–64), the repeated notes articulate a dominant pedal—another idea absent from the 40 preceding statements. The repeated-note motive gradually crowds out all other motivic ideas during the next three statements, so that all voices in statement 44 (mm. 173–76) have nothing but repeated notes, leading to the climactic repeated-note sixteenth-note triple-stops that end the statement.

The quality of motion slows down abruptly in the very next measure (m. 177). The rhythm reverts to that of the opening measures of the *Chaconne*, initiating the longest slow-rhythm section in the piece, and the texture slims to two voices. The common element that connects this to the previous music is the repeated-note motive, returning to its original context of the opening measures. And that original rhythm begins its own series of heightened statements: appearing first in double-stops, then in repeated triple-stops in m. 185, and finally in quadruple-stops in mm. 189ff. The common element across the clear-cut textural break in m. 177 is the repeated-note motive, whose development thereby becomes perhaps the most important aspect within the major-mode variations.

Another technique that Bach uses to maintain interest throughout the entire *Chaconne* is withholding certain elements until late in the movement. The previous paragraph discusses two such elements: the repeated-note motive and the use of pedals, both of which appear only well into the second half of the piece. Another such element is triplets, the first rhythms in the entire movement that do not “nest” within all other rhythms that are present. Triplets do not appear until just before the very end of the

Chaconne. In terms of harmony, Bach reserves the first appearance of the Neapolitan chord (\flat II⁶ or an E \flat triad) until the last section of minor-mode statements.

Even by balancing the intensification of some musical elements with reduced activity in other elements and unifying large stretches of the *Chaconne* with single ideas (such as the repeated-note motive during the major-mode variations) Bach clearly felt that he could not create a single sequence of heightening complexity over the entire *Chaconne*. He uses the changes of mode—to major and then back to minor—as the primary large articulations in the movement as a whole. Each mode change follows a major cadence, and each new section begins with the slower motions characteristic of the opening of the *Chaconne*. But once each new section begins, the same processes of growth continue as in the first minor-mode section.

Bach carefully planned the placement of these mode changes so that each section is briefer than the previous one, allowing the heightening intensifications to proceed even faster than in the previous sections. There are 33 minor-mode statements, then 19 major-mode statements, and finally 12 minor-mode statements.

In addition, Bach may well have planned the proportions between sections to project some ancient architectural and structural principles. The 62 variation phrases after the two-phrase theme in mm. 1–8 divide exactly in half into two groups of 31: first 31 variation phrases in minor and then 31 variation phrases divided between a group of 19 major-mode variation phrases and 12 minor-mode variation phrases. The ratios among these variation-phrase groupings are 12:19 (the 12 ending minor-mode variations related to the 19 major-mode variations that precede them) and 19:31 (the ratio of the major-mode variation phrases to the 31 variation phrases of the second half of the movement). These two ratios (0.631 for 12:19 and 0.613 for 19:31) are close to 0.618, the ratio known since antiquity as the *Golden Section*—a ratio according to which the smaller part of a division (here 12, representing the concluding number of minor-mode variation phrases) relates to the larger part of a division (here 19, representing the preceding number of major-mode variation phrases) in the same ratio as the larger part relates to the entire section (here 31, representing the second half of the variation phrases).⁷

To be sure, one must manipulate the numbers a bit to get some of these proportions. Only if one considers the first two statements as a “theme” and subtracts them from the remaining 62 “variations” (and only if one does not likewise omit the last two statements of the piece as a return to that “theme”) do the minor-mode variations in the first large section of the *Chaconne* last exactly as long as the major-mode plus minor-mode variations of the second large section. (Otherwise, there are either 33 phrases in the first large section and 31 in the second large section or 31 phrases after the theme in the first large section and 29 phrases in the second large section prior to the closing thematic statements.) It is, of course,

quite possible that Bach conceptualized the movement with the opening theme followed by the 31:19:12 ratio discussed in this chapter. But for performers and listeners I personally find the patterns of heightening activity more pertinent. Exploring those aspects of the *Chaconne* as they affect articulation, tempo, expression, affect, bow stroke, fingering, and all other nuances of violin playing and music making will fill many a lifetime.

Closing Thoughts

How are we to appreciate the creations of the past? Are their meanings best revealed by historically accurate re-creations? Or does that approach inevitably fail to explain why these works still inspire us in the present? Should we study past creations with contemporary analytical tools and concepts? Or does that inevitably trivialize a masterwork by distorting its meaning in its own cultural context? Or is it precisely because a work is of interest to us in our age that we study it and, therefore, inevitably distort the creation's original meaning(s)? Should we try to use historically appropriate concepts to analyze past creations, with the inevitable anachronism of applying analytical tools appropriate to one historic period to answer our own questions—questions that might well have been unimaginable in the age in which the work was created?

Clearly, there are no single or simple answers to these unavoidable questions. We are still interested in Bach's solo-violin works because they are "masterworks" that have transcended their historical and cultural setting, yet the very notion of such a musical "masterwork" was alien to Bach's culture.

If we try to re-create the pieces the way they might have sounded to Bach, where are we to draw the line of historical re-creation? I remember some years ago participating in a modern-instrument performance of Bach's B-minor Mass in Lincoln Center's Avery Fisher Hall. I was seated close to French hornist David Jolley, who, after sitting quietly onstage for a long time, rose to perform beautifully the treacherously difficult horn solo in the "Et in quoniam." A *New York Times* reviewer singled out Jolley's performance for high praise but depreciated that praise by noting that Jolly had performed on a modern valve horn. Many of us who had participated in the performance were outraged at that snide comment. How far should we have gone in re-creating an appropriate "historically authentic" setting? Should we not have performed the mass as a concert work at all, since masses were not "concert pieces"? Should we have re-

moved the cushioned seats and replaced them with wooden pews? Should we have turned off the air-conditioning on that sultry June evening (and banned deodorants and removed the modern rest rooms)? Should we have dispatched most of the offspring of the audience to childhood illnesses that are now easily avoided or cured (to re-create Bach's experience of having fathered 20 children, of whom only 4 grew to adulthood)? Should we have pockmarked most of the adult audience members with the scars of childhood bouts with smallpox?

The increasing audacity of these questions indicates how far we have come from the world that Bach inhabited—not only in years but also in basic expectations about the conditions of human life. When I think about the chasm that separates many of our most daily experiences from those of earlier eras, I find it miraculous that we can appreciate at all the artistic creations of past eras—eras in which even the most fortunate few lived in conditions that the vast majority of us who live today in the first world would find intolerable. Clearly, the artistic creations of a given past age must have spoken to the concerns of that age, or else the artists would not have created them in the first place. But that a small number of these creations should communicate so meaningfully to us centuries later surely indicates that they communicate universals, not merely passing fads (whether of the past or of the present).

Whether we like it or not, we have become museum curators of Western classical music. The social, technological, and artistic aspects of the past cultures that produced these works no longer exist. Yet innumerable musical creations have survived into our age and draw audiences around the world. There is much talk nowadays about the internationalization of popular culture. Although it may not be so frequently noted, Western classical music, too, has become international in a much wider sense than was true even one or two generations ago. Many major concert artists nowadays come not only from Europe but also from East Asia and the Western Hemisphere—areas hardly thought of in terms of Western classical music during the eighteenth and nineteenth centuries. That music is included in films, television shows, and advertisements in all these societies because it speaks to audiences. Much as Classical Greek and Shakespearean dramas are the nearly universal benchmarks of theater in societies and cultures far removed from the ancient Athens and Elizabethan England that gave birth to them, the music of Bach, Mozart, Beethoven, and so many others has achieved that sort of universality.

Our explorations of these masterworks from the past should draw both from the past eras that saw their gestation and from the subsequent eras that have found them relevant to contemporaneous concerns. Having this larger agenda of analytical concerns is even more pressing as we come to the close of the twentieth century. We belong to the first generation that no longer has any living links that connect us to the era in which tonality was the sole musical vernacular for European art music. So many aspects of our musical world are so drastically different from the cultural climates in

which the standard repertoire of Western classical music was created. And so many music students today have so little understanding of those earlier cultures, either because contemporary education in general is so different from that of the past or because so many of these students come from entirely different regions of the globe.

These are surely important factors in the growing historicism of many recent studies in music theory—the recent surge in publications on theories and analyses of previous eras, as well as the increasing interest among musicologists in reaching back to models of earlier ages for exploring music of the eighteenth and nineteenth centuries.¹ Many of these studies have touched upon rhetoric—a universal component of education in much of that period, an overt as well as implicit source of ideas for numerous musical analysts in the eighteenth century, and another topic that has received much attention in recent historical and analytical studies.²

I, too, have invoked the concept of rhetoric in many chapters in the present book. But I do not believe that we are apt to find the answers to our modern questions in eighteenth-century writings on rhetoric. When Johann Mattheson related the process of composing music to the stages in creating an oration or applied labels that pertain to the sections of a classical oration to an aria by Marcello I do not believe that he was describing what interests us about the compositional process or music of masters like J. S. Bach. Nonetheless, I do believe that that age's underlying interest in rhetoric can provide us with access to manners of thinking that are fundamentally at odds with those on which later analytic methods are based.

As described in this book, certain crucial elements of Bach's compositions remain remarkably constant despite the genre of the piece. His two-reprise movements, despite some relatively superficial similarities to later music in binary forms, share crucial traits with his fugues, preludes, ritornello movements, sets of variations, and seemingly through-composed movements (like the C-major Invention and the first and third movements of the A-major Sonata for Violin and Keyboard discussed in chapter 4). Understanding these traits—especially working with the opening thematic material in ever more complex ways and building increasing levels of activity both within sections of movements and between parallel portions of recurring sections—allows us to understand better how a single creative genius stands behind the larger aspects of all of Bach's compositions in all genres.

This perspective allows us to ascribe to Bach's music the same unity of conception that has been applied to the music of the Classical-era composers Haydn, Mozart, and Beethoven. Their unity of conception is enshrined in the hierarchy of musical forms articulated by A. B. Marx before the middle of the nineteenth century—forms that range from simple binary and ternary to larger works like rondos, sonata forms, and concerto forms, all of them built from late-eighteenth and early-nineteenth-century conceptions like phrase balance, tonal polarity and resolution, areas of thematic statement vs. transition and development, and so forth. Those

notions, developed in response to music of the Viennese Classical masters, were not initially intended to apply to the music of earlier epochs. But they were such powerful analytical concepts—not only in their original formulations but also in later reformulations by theorists as diverse (and influential) as Tovey and Schenker—that their application has become virtually synonymous with the very notion of “analysis.”

The rediscovery of Bach early in the nineteenth century fulfilled many agendas, ranging from finding a great German master of the past to assist growing German nationalism, to locating a composer in whose music the notions of Beethovenian motivic development could be found. Bach's music was absorbed by the period as if it were contemporary music. Robert Schumann's piano accompaniments (as discussed at various points in earlier chapters) continuously interpret everything from local rhythms and texture to larger issues such as phrasing, tonality, thematic placement, and form through the ears of the first half of the nineteenth century.

And that is the tradition, enshrined by two of the founders of modern violin playing—Ferdinand David and Joseph Joachim—that brought the solo-violin works to the concert stage in the nineteenth century, initiating the performance traditions that survive today. David's 1843 edition paired Bach's original notation with a violin part more suited to modern performance techniques, and Joachim's 1908 edition (co-edited with Andreas Moser) continued this practice, but based finally on Bach's recently rediscovered autograph score. Joachim's was the most respected edition well into the second half of the twentieth century.

All this is not to say that nineteenth- and twentieth-century perspectives on Bach's music do not help reveal the music to us. Of course they do. For instance, Carl Schachter's Schenkerian analysis of the *Gavotte en rondeaux* of the E-major Partita illuminates numerous aspects of the voice leading of individual sections of the movement as well as the movement overall.³ And many of Schachter's insights are consonant with the notion of heightening levels of activity proposed here. For instance, it is obvious to any listener that the rondo episodes in the *Gavotte* are progressively more complex as the movement proceeds. The first episode is the same eight-measure length as the rondo refrain itself and in a single key (the relative minor, vi); the second episode is twice as long (16 measures) and in two closely related keys (the tonic and dominant, I and V). The third episode also lasts 16 measures but is in the more distant key of the super-tonic (ii). The fourth and final episode, 20 measures long, is the longest of all and roams tonally from vi through V to the relatively distant mediant (iii). In addition, the harmonic connections between the episodes and the rondo refrain are progressively more complex, so that after the fourth episode in ii Bach must revoice the opening chord of the refrain to avoid parallel fifths between the F#-minor triad that ends the episode and the E-major triad that begins the refrain. And this leads, as Schachter's analysis shows, to a harmonic transformation of the opening so that the literal return of the refrain is not really a literal return at all in a structural sense.

I have attempted in this book to explore Bach's solo-violin works (as well as additional compositions by Bach and others that provide a historical and stylistic context within which the solo-violin works were created and handed down from generation to generation) utilizing a wide range of analytical tools. Often the focus has been on invoking early-eighteenth-century conceptions over those of later periods, with the aim of opening hitherto relatively unexplored avenues of inquiry.

Several major themes emerge from these investigations. Bach's solo-violin works are, of course, creations of their era as well as individual pieces and collections akin to the other great instrumental works of that period (such as the *Inventions*, the first volume of the *Well-Tempered Clavier*, and the *Brandenburg* Concertos). Relating these pieces to other works of Bach and of that historical era opens doors to interpret them structurally, stylistically, and in terms of performance issues. The process of exploring these issues suggests ways in which Bach's music can be studied apart from the norms of later theories of musical structure and form. Emerging from all four movements of the G-minor Sonata, as well as from many other pieces surveyed here, is the notion of increasing intensification as a stylistic and structural principle, one that binds movements as varied as homophonic preludes and polyphonic fugues, and seeming free-form movements and seemingly well formed two-reprise movements. In addition, numerous discussions show how the various movements of Bach's compositions relate closely to one another as parts of a cyclic whole. There has been considerable discussion lately on whether Beethoven or Haydn was the first to write cyclic works with such relationships between movements.⁴ Whatever the answer to that question is for the Classical era, there is no doubt that many of Bach's multimovement works feature this sort of cyclic unity, in which all movements share underlying thoroughbass progressions and upper-part voice leadings, tonal relationships, and sonorities.

I do hope that these explorations will suggest new ways to bring all these principles to life in performances as well as in our listening imaginations. We as performers, listeners, historians, and analysts will always carry attitudes that reflect our current notions of performance propriety, analytical propriety, and historical sensibility that accords with our current era.

But only as these pieces continue to evolve—as performers continue to find refreshing ways to communicate these pieces and as analysts and historians find refreshing ways to assist us to understand these pieces—will these works remain an important part of the concert repertoire and not revert to becoming what they once were: pieces for study by violinists. And only from the fount of performers' new visions will a future generation's interest spring, prompting as yet unborn scholars and performers to further musings on Bach's works for solo violin.

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Notes

Preface

1. Ludwig van Beethoven, *Sonatas for Piano Solo*, revised by Hans von Bülow and Sigmund Lebert (New York: G. Schirmer, 1894). Hugo Riemann, *Katechismus der Fugen-Komposition (Analyse von J. S. Bachs "Wohltemperiertem Klavier" und "Kunst der Fuge")*, 3 vols. (Leipzig: Max Hesse, 1890–94; English translation by John Shedlock as *Analysis of J. S. Bach's Wohltemperiertes Clavier ([48 Preludes and Fugues])*, 2 vols., London: Augener, n.d.); Riemann, *L. van Beethovens sämtliche Klavier-Solosonaten: Ästhetische und formal-technische Analyse mit historischen Notizen*, 3 vols. (Berlin: Max Hesse, 1917–19). Heinrich Schenker, *Die letzten fünf Sonaten Beethovens: Kritische Ausgabe mit Einführung und Erläuterung*, 4 vols. (Vienna: Universal, 1913–20). Donald Francis Tovey, *A Companion to Beethoven's Piano Solo Sonatas* (London: Associated Board of the Royal Schools of Music, 1931); Tovey, *Ludwig van Beethoven: Sonatas for Piano Solo [with] Commentaries*, 3 vols. (London: Associated Board of the Royal Schools of Music, 1931); Tovey, *A Preface: Forty-Eight Preludes and Fugues by J. S. Bach: Critical Explanatory Notes to Each Prelude and Fugue* (London: Associated Board of the Royal Academy of Music, 1924); Tovey, *Forty-Eight Preludes and Fugues by J. S. Bach*, 2 vols. (London: Associated Board of the Royal Academy of Music, 1924).

2. His analyses of Lully's monologue appear in Jean-Philippe Rameau, *Nouveau système de musique théorique* (Paris: Ballard, 1726; facsimile eds., New York: Broude Brothers, 1965, and in vol. 2 of *The Complete Theoretical Writings of Jean-Philippe Rameau*, ed. Erwin Jacobi, n.p.: American Institute of Musicology, 1967); and Rameau, *Observations sur notre instinct pour la musique* (Paris: Prault fils, Lambert, Duchesne, 1754; facsimile eds., New York: Broude Brothers, 1967, and in vol. 3 of *The Complete Theoretical Writings*, 1967). A thorough discussion of these analyses appears in Cynthia Verba, "The Development of Rameau's Thoughts on Modulation and Chromatics," *Journal of the American Musicological Society* 26 (1973): 69–91. An analysis of Marcello's aria appears in part 2, chapter 14, sec. 14–22, of Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg: Christian Herold, 1739; facsimile ed., Kassel: Bärenreiter, 1969; English translation by Ernest

Harriss in *Johann Mattheson's "Der vollkommene Capellmeister": A Translation and Commentary*, Ann Arbor: UMI Research Press, 1981). A penetrating commentary on Mattheson's analysis appears in Carl Dahlhaus, *Die Musiktheorie im 18. und 19. Jahrhundert*: Bd. 2, *Deutschland* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1989), 224–26. A discussion of Scarlatti's cantata appears in Johann David Heinichen, *Der Generalbass in der Composition* (Dresden: the author, 1728), part 2, chapter 4, 797–836; facsimile ed., Hildesheim: G. Olms, 1969; English translation in George Buelow, *Thoroughbass Accompaniment according to Johann David Heinichen* (Berkeley: University of California Press, 1966; 2d ed., Ann Arbor: UMI Research Press, 1986), chapter 9.

3. The most comprehensive history of this development appears in Ian Bent, *Analysis* (New York: W. W. Norton, 1987). He has also edited an impressive collection of nineteenth-century analytical essays: Bent (ed.), *Music Analysis in the Nineteenth Century*, 2 vols. (Cambridge: Cambridge University Press, 1994).

4. This was published in a combined German-English edition (Zurich: Atlantis Musikbuch-Verlag, 1979).

Chapter 1

1. Hugo Riemann, *Handbuch der Musikgeschichte*, 2 vols. (Leipzig: Breitkopf & Härtel, 1904–13). Riemann titled the four large sections of his history “Antiquity and the Middle Ages” (“Altertum und Mittelalter”), “The Age of the Renaissance” (“Das Zeitalter der Renaissance”), “The Age of Thoroughbass” (“Das Generalbasszeitalter”), and “The Music of the 18th and 19th Centuries” (“Die Musik des 18. und 19. Jahrhunderts”). Significantly, he named only the “Baroque” period after a characteristic musical technique, not a historical era.

2. “Sei Solo á Violino senza Basso accompagnato” on the title page and “Sonata 1^{ma} á Violino Solo senza Basso” above the first sonata itself. The complete autograph score exists in a number of facsimile editions, listed later in this chapter.

3. Johann Nicolaus Forkel, *Über Johann Sebastian Bachs Leben, Kunst und Kunstwerke; für patriotische Verehrer echter musikalischer Kunst* (Leipzig: Hoffmeister & Kühnel, 1802; facsimile ed., Berlin: Henschel, 1982; English translation ([possibly by Augustus Frederic Christopher Kollmann]) under the title *On Johann Sebastian Bach's Life, Genius, and Works*, London: 1820, reprinted in *The Bach Reader*, ed. Hans David and Arthur Mendel, New York: W. W. Norton, 1945; revised ed., 1966, section 6).

4. *Bach-Schumann, Klavierbegleitung zu den Sonaten für Violine Solo* (Leipzig: Breitkopf & Härtel, 1853; modern ed., Frankfurt: Edition Peters, n.d.). Rudolf Envers discusses Mendelssohn's accompaniment in “Verzeichnis der von Felix Mendelssohn Bartholdy herausgegebenen Werke Johann Sebastian Bachs,” in *Gestalt und Glaube: Festschrift für Oskar Söhngen zum 60. Geburtstag*, ed. (Witten: Luther-Verlag, 1960), 145–49.

5. Brahms's arrangements, probably composed early in 1877, are nos. 3–5 of *Fünf Klavierstudien*, published without opus number (Leipzig: Bartholf Senff, 1878). Brahms's other two etudes are arrangements of pieces by Chopin and Weber. They appear in *Johannes Brahms sämtliche Werke*, vol. 15, 20–27, reprinted as *Brahms Piano Works Complete in Three Volumes* (New York: International Music Company, n.d.), 22–29. More information appears in Mar-

git L. McCorkle, *Johannes Brahms thematisch-bibliographisches Werkverzeichnis* Munich: Henle, 1984), 615–19.

6. *Clavierbüchlein vor Wilhelm Friedemann Bach* facsimile ed. (New Haven: Yale University Press, 1959), published in *Johann Sebastian Bach, neue Ausgabe sämtlicher Werke* (henceforth *Neue Bach Ausgabe*), edited by Günter Hausswald and Rudolf Gerber (Kassel: Bärenreiter, 1958), V/5.

7. This title page, included in many editions, appears in English translation in David and Mendel, *Bach Reader*, 86.

8. Hausswald and Gerber, Critical Report to *Neue Bach Ausgabe*, VI/1, 64, provides more detail.

9. David and Mendel, *Bach Reader*, 277.

10. Hausswald and Gerber, Critical Report to *Neue Bach Ausgabe*, VI/1, 33–34.

11. Godfrey Keller, *Rules for Playing a Thorough Bass* (London: J. Walsh & J. Hare, 1705; numerous later editions with nearly identical contents).

12. Johann Mattheson, *Das neu-eröffnete Orchestre; oder, Universelle und gründliche Anleitung, wie ein galant Homme einen vollkommen Begriff von der Hobeit und Würde der edlen Music erlange, seinen Gout darnach formiren, die Terminos technicos verstehen und geschicklich von dieser vortrefflichen Wissenschaftt raisonniren möge* (Hamburg: the author, 1713).

13. Johann Heinrich Buttstett, *Ut, mi, sol, re, fa, la, tota musica et harmonia aeterna; oder, neu-eröffnetes, altes, wahres, einziges und ewiges Fundamentum musices, entgegen gesetzt dem neu-eröffneten Orchestre* (Erfurt: Otto Friedrich Werther, [1715–17]).

14. Johann Mattheson, *Das beschützte Orchestre* (Hamburg: im Schillerischen Buchladen, 1717).

15. Johann Mattheson, *Critica Musica*, vol. 2 (Hamburg: Thomas von Wierings Erben, 1725; facsimile ed., Amsterdam: Frits A. M. Knuf, 1964), 179–288.

16. Johann Joseph Fux, *Gradus ad parnassum* (Vienna, 1725); facsimile eds., (New York: Broude, 1966, Hildesheim: Georg Olms, 1974, and in *Johann Fux: Sämtliche Werke*, Kassel: Bärenreiter, 1967, VII/1). English translations of the sections on species counterpoint and fugue appear in Alfred Mann, *The Study of Counterpoint* (New York: W. W. Norton, 1965; earlier ed. as *Steps to Parnassus*, New York: W. W. Norton, 1943), and Mann, *The Study of Fugue* (New York: W. W. Norton, 1965; repr., New York: Dover, 1987). Joel Lester translates “The Fux–Mattheson Correspondence” in *Current Musicology* 24 (1977): 37–62 and surveys the relationship between modal and major-minor thinking in Lester, *Between Modes and Keys: German Theory 1592–1802* (Stuyvesant, N.Y.: Pendragon Press, 1989).

17. David and Mendel, *Bach Reader*, translate Bach’s testimonial about the Erfurt organ on pp. 74–75 and translate documents that relate to Bach in Hamburg (including a commentary by Mattheson) on pp. 79–82.

18. François Campion, *Traité d’accompagnement et de composition, selon la règle des octaves de musique* (Paris: G. Adam, 1716; facsimile ed., Geneva: Minkoff, 1976, 13; English translation in Luann Dragone, “François Campion’s Treatise on Accompaniment: A Translation and Commentary,” *Theoria* 6 ([1992]): 153).

19. Jean-Philippe Rameau, *Traité de l’harmonie* (Paris: Ballard, 1722), appears in two facsimile editions (New York: Broude, 1965; and in *The Complete Theoretical Writings of Jean-Philippe Rameau*, ed. Erwin Jacobi, n.p.: American Institute of Musicology, 1967, vol. 1). An English translation by

Philip Gossett appears as *A Treatise on Harmony* (New York: Dover, 1971); the introduction explains how the original text and the supplement relate.

20. The foreword to the edition edited by Joseph Joachim and Bach scholar Andreas Moser (1859–1925) (Berlin: Bote & Bock, 1908; nowadays widely used in an undated reprint by the International Music Company) states that the sonata is in the Dorian and Lydian modes.

21. Georg von Dadelsen, “Zur Geltung der Legatobögen bei Bach: Eine Studie für Artikulationsfanatiker und Editoren,” in *Festschrift Arno Forchert zum 60. Geburtstag am 29. Dezember 1985*, ed. Gerhard Allroggen and Detlef Altenburg (Kassel: Bärenreiter, 1986), 114–22.

22. David Boyden, *The History of Violin Playing from Its Origins to 1761 and Its Relationship to the Violin and Violin Music* (London: Oxford University Press, 1965), 157–63.

23. Leopold Mozart, *Versuch einer gründlichen Violinschule* (Augsburg: J. J. Lotter, 1756; English translation by Editha Knocker, London: Oxford University Press, 1948; revised ed., 1951).

24. Cited in Boyden, *History of Violin Playing*, 258.

25. Hausswald and Gerber, Critical Report to the *Neue Bach Ausgabe*, describe all the early sources.

26. Hausswald and Gerber, Critical Report to the *Neue Bach Ausgabe*, describe Kellner’s copy on pp. 16–20 and 34–44. Andreas Moser argues that Kellner omitted passages to simplify the pieces (“Zu Joh. Seb. Bachs Sonaten und Partiten für Violine allein,” *Bach-Jahrbuch* 17 [1920]: 33). Helmut Braunschweig believes the variants are Bach’s early versions (“Johann Peter Kellner’s Copy of the Sonatas and Partitas for Violin Solo by J. S. Bach,” *Bach* [quarterly journal of the Riemenschneider Bach Institute] 12/2 [1981]: 2–10). Russell Stinson believes different variants may have different origins (“J. P. Kellner’s Copy of Bach’s Sonatas and Partitas for Violin Solo,” *Early Music* 13 [1985]: 199–211).

27. I am most grateful to Mr. Fuld for giving me access to his copy of the 1802 edition.

28. David and Mendel, *Bach Reader*, 346 (my translation).

29. *Ibid.*, 277.

30. Agricola’s 1774 comments appear in English in David and Mendel, *Bach Reader*, 447.

31. Ferdinand David, ed., *Sechs Sonaten für die Violine allein von Joh. Sebastian Bach. Studio ossia tre Sonate per il violino solo senza Basso. Zum Gebrauch bei dem Conservatorium der Musik zu Leipzig, mit Fingersatz, Bogenstrichen und sonstigen Bezeichnungen versehen von Ferd. David. Für diejenigen, welche sich diese werk selbst bezeichnen wollen, ist der Original-Text, welcher nach der auf der Königl. Bibliothek zu Berlin befindlichen Original-Handschrift des componisten aufs genaueste revidert ist, mit kleinen Noten beigegefügt* (*Six Sonatas for violin alone by Jon. Sebastian Bach. Studies or Three Sonatas for Violin alone without Bass. For Use in the Leipzig Conservatory, Provided with Fingerings, Bowings and Annotations by Ferd. David. For those who wish to study this work, the original text, revised most exactly according to the original manuscript in the Royal Library in Berlin, is added in small notes*) (Leipzig: Fr. Kistner, 1843).

32. According to their foreword, Joachim and Moser had wished to include a complete facsimile of Bach’s manuscript in their 1908 edition. But after long negotiations with the then private owner of the manuscript, they

received permission to include a facsimile of only the *Adagio* to the G-minor Sonata.

33. Joseph Hellmesberger, ed., (Leipzig: Peters, 1865).

34. Alfred Dörfel, ed., *Johann Sebastian Bach Music for Violin* (Leipzig: Breitkopf & Härtel, 1879; facsimile ed., New York: Dover, 1978).

35. Ettore Pinelli, ed., (Milan: Ricordi, 1887).

36. Joachim made his Bach recordings in Berlin in 1903; they appear on CD 1071 issued by Symposium. Sarasate recorded the E-major *Preludio* not long afterward; it appears on LP A-123, issued by the American Stereophonic Corporation.

37. David and Mendel, *Bach Reader*, 447.

38. Details on all these arrangements and summaries of the latest scholarship on the origin of extant copies appear in Wolfgang Schmieder, *Thematisch-systematisches Verzeichnis der musikalischen Werke von Johann Sebastian Bach: Bach-Werke-Verzeichnis (BWV)*, 2d ed. (Wiesbaden: Breitkopf & Härtel, 1990), 731 (and cross-references), and Hausswald and Gerber, Critical Report to the *Neue Bach Ausgabe*, 64–65.

39. Moser, “Zu Bachs Sonaten und Partiten,” 45–46.

40. *Ibid.*, 44. Moser does not give a source for this story. Perhaps he heard it from his late colleague Joachim, with whom he collaborated in preparing the 1908 edition of the solo works. Joachim, in turn, might have heard Mendelssohn tell him this story when Joachim, then 14 years old, played the *Chaconne* privately for Mendelssohn late in 1845. (Moser relates the story of that performance on pp. 42–43).

41. Robert Schumann’s summary review of the 1839–40 concert season in Leipzig appears in *Neue Zeitschrift für Musik* of May 15, 1840. An English translation by Paul Rosenfeld appears in Robert Schumann, *On Music and Musicians*, ed. Konrad Wolff (New York: Pantheon, 1946), 229.

42. Robert Schumann, *Tagebücher II*, ed. Gerd Nauhaus (Leipzig: VEB Deutscher Verlag für Musik, 1987), 23, 26. That Mendelssohn was not in Leipzig on those dates is clear from the letters he wrote from Frankfurt on August 2, 1836, and The Hague on August 9, 1836, published in *Felix Mendelssohn Letters*, ed. G. Sethen-Goth (New York: Pantheon, 1945).

43. *Bach-Schumann*. The undated edition of this work published by Edition Peters uses Hellmesberger’s 1865 edition as the basis of the violin part. This edition continues to refer to the six pieces as “sonatas,” using that title even for the partitas.

Schumann, around the same time that he wrote accompaniments to the violin solos, also prepared accompaniments to all six Bach solo cello suites (published posthumously around 1870) and to Paganini’s violin caprices (first published in 1941).

44. Gwang-lin Peng, “A Descriptive Thematic Catalog of the Works of Fritz Kreisler” (D.M.A. diss., City University of New York, 1994).

45. Moser, “Zu Bachs Sonaten und Partiten,” 33.

Chapter 2

1. Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst* (Frankfurt, 1752), cast as a pupil–teacher dialogue.

2. For instance, Johann Philipp Kirnberger (1721–83), a Berlin organist, theorist, and composer who studied with J. S. Bach around 1740, published

Die allezeit fertige Polonoisen- und Menuetten-Componist in both German and French (Berlin, 1757).

3. Carl Philipp Emanuel Bach, *Versuch über die wahre Art das Clavier zu Spielen*, vol. 2 (Berlin: George Ludewig Winter, 1762; facsimile ed., Leipzig: Breitkopf & Härtel, 1957 and 1969), chapter 41, ¶7; English translation by William J. Mitchell as *Essay on the True Art of Playing Keyboard Instruments* (New York: W. W. Norton, 1949), chapter 7, ¶7.

4. An analysis by Heinrich Schenker (1868–1935) illuminates many details in the prelude in *Fünf Urlinie Tafeln* (Vienna: Universal, 1932; reprinted as *Five Graphic Music Analyses*, New York: Dover, 1969).

5. The theorbo was a many-stringed lute like instrument that was primarily used for accompanying and realizing a thoroughbass.

6. François Campion, *Traité d'accompagnement et de composition, selon la règle des octaves de musique* (Paris: G. Adam, 1716; facsimile ed., Geneva: Minkoff, 1976; English translation in Luann Dragone, "François Campion's Treatise on Accompaniment: A Translation and Commentary," *Theoria* 6 [1992]: 135–62).

7. The pattern-preludes and Bach's compositional pedagogy are discussed in Joel Lester, "J. S. Bach Teaches Us How to Compose: Four Pattern Preludes of the *Well-Tempered Clavier*," *College Music Symposium* 38 (1998): 33–46.

8. The Englishman Matthew Locke (c.1621–77) used grand cadence in his *Melothesia; or Certain General Rules for Playing upon a Continued-Bass* (London: J. Carr, 1673; facsimile eds., New York: Broude, 1975, and Oxford: Oxford University Press, 1987). The German *Cadenz-Clausul* (cadential closing) was used by Friedrich Erhard Niedt (1674–1708) in his *Musikalische Handleitung*, the first part of which is titled *Handelt vom General-Bass* (Treats Thoroughbass) (Hamburg: Spieringk, 1700; Hamburg: Schiller, 1710; facsimile of the 1710 reprint, Buren: Frits Knuf, 1976; English translation by Pamela Poulin and Irmgard Taylor as *The Musical Guide*, Oxford: Clarendon Press, 1988).

9. Riepel, *Anfangsgründe*; Heinrich Christoph Koch, *Versuch einer Anleitung zur Composition* (Leipzig: Adam Friedrich Böhme, 1782–93; partial English translation by Nancy Baker as *Introductory Essay on Composition*, New Haven: Yale University Press, 1983). A summary of their compositional pedagogy and references to other scholars' work appears in Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992), chapters 10–11.

10. Johann David Heinichen, *Der Generalbass in der Composition* (Dresden: the author, 1728, facsimile ed., Hildesheim: G. Olms, 1969); Niedt, *Musikalische Handleitung*. Nicolaus Forkel's report on J. S. Bach's composition pedagogy appears in his 1802 biography, *Über Johann Sebastian Bachs Leben, Kunst und Kunstwerke; für patriotische Verehrer echter musikalischer Kunst*, reprinted in English translation in *The Bach Reader*, ed. Hans David and Arthur Mendel (New York: W. W. Norton, 1945; revised ed., 1966), 329–30.

11. David Boyden, *The History of Violin Playing from Its Origins to 1761 and Its Relationship to the Violin and Violin Music* (London: Oxford University Press, 1965), 435–36.

12. James Webster, "Sonata Form," in *The New Grove Dictionary of Music and Musicians* (London: Macmillan, 1980).

13. A modern edition appears in Quintilian, *The Institutio oratoria of Quintilian with an English Translation by H. E. Butler* (Cambridge: Harvard University Press, 1958–60).

14. Claude Palisca discusses Burmeister's rhetorical analysis in "Ut oratoria musica: The Rhetorical Basis of Musical Mannerism," in *The Meaning of Mannerism*, ed. Franklin Westcott Robinson and Stephen G. Nichols, Jr. (Hanover, N.H.: University Press of New England, 1972), 37–65. Burmeister published his analysis in *Musica poetica* (Rostock, 1606; English translation by Benito V. Rivera as *Musical Poetics*, New Haven: Yale University Press, 1993).

15. Bach's April 19, 1723, letter to the Town Council of Leipzig that pledged to fulfill his many duties appears in English translation in David and Mendel, *Bach Reader*, 89.

16. Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg: Christian Herold, 1739; facsimile ed., Kassel: Bärenreiter, 1954; English translation by Ernest Harriss in *Johann Mattheson's "Der vollkommene Capellmeister": A Translation and Commentary*, Ann Arbor: UMI Research Press, 1981), part 2, chapter 14, paragraph 25.

Two recent studies document the extensive influence of rhetorical thinking on music in the eighteenth century: Mark Evan Bonds, *Wordless Rhetoric: Musical Form and the Metaphor of the Oration* (Cambridge: Harvard University Press, 1991); and Andreas Liebert, *Die Bedeutung des Wertesystems der Rhetorik für das deutsche Musikdenken im 18. und 19. Jahrhundert* (Frankfurt: Peter Lang, 1993). And Elaine R. Sisman draws on eighteenth-century notions of rhetoric in her study *Haydn and the Classical Variation* (Cambridge: Harvard University Press, 1993).

17. Originally recorded in 1946, Szigeti's recording was reissued in 1993 on CD under the Music and Arts label as CD-774. Menuhin's 1935 recording was reissued on CD by EMI in 1989 as CHS-763035 2.

18. Reissued on CD by Deutsche Grammophon as 423 294-2.

19. Robert Philip, *Early Recordings and Musical Style* (Cambridge: Cambridge University Press, 1993).

20. Heifetz's recording was reissued on CD by EMI Classics in 1992 as 0777 7 64494 25. Menuhin's recording was reissued on CD by EMI in 1989 as CHS-763035 2.

21. Kremer's 1980 recording was reissued on CDs by Philips as 416 651-2. Perlman's 1986–87 recording appeared on CD on EMI as 0777 7 49483 2 6. Schröder's mid-1980s recording was reissued on CD in 1992 by the Smithsonian Collection of Recordings Classics as 0777 7 64494 25.

22. Stephen Hefling, *Rhythmic Alteration in 17th- and 18th-Century Music* (New York: Schirmer, 1993), 147.

Chapter 3

1. Full bibliographical details appear in note 16 of chapter 1.

2. Book 3, chapter 44. Full bibliographical details appear in note 19 of chapter 1.

3. Kuhnau's *Clavier Übung* appears in a modern edition in *Denkmäler deutscher Tonkunst (Monuments of German Composition)*, I/4, ed. Karl Päsler, 2d ed., ed. Hans Joachim Moser (Wiesbaden: Breitkopf & Härtel, 1958), 2.

4. Imogene Horsley details the history of this tonal polarity in fugues in *Fugue: History and Practice* (New York: Free Press, 1966), 65–130.

5. The organ arrangement of the G-minor *Fuga* (BWV 539) is paired with a different prelude whose recurring opening phrase moves to a subdominant tonicization. Extremely strong subdominant colors also pervade the Toccata and Fugue in D Minor (BWV 565), where the fugal answer is also in the sub-

dominant: Three separate passages in that fugue express the remote key of **iv** of **iv** (C minor), and the entire piece almost obsessively avoids the dominant before concluding **iv-i**.

6. Information about this arrangement, whose earliest surviving copies date from the second half of the eighteenth century, appears in Wolfgang Schmieder, *Thematisch-systematisches Verzeichnis der musikalischen Werke von Johann Sebastian Bach: Bach-Werke-Verzeichnis (BWV)*, 2d ed. (Wiesbaden: Breitkopf & Härtel, 1990), 508–9.

7. William Renwick details this aspect of fugal writing in *Analyzing Fugue* (Stuyvesant, N.Y.: Pendragon Press, 1995).

8. Hans David and Arthur Mendel, *The Bach Reader* (New York: W. W. Norton, 1945; revised ed., 1966), 447; emphasis added.

9. More thorough discussions of this and related analyses appear in Alfred Dürr, “Ein Dokument aus dem Unterricht Bachs?” *Musiktheorie* 1 (1986): 163–70; Heinrich Deppert, “Anmerkungen zu Alfred Dürr,” *Musiktheorie* 2 (1987): 107–8; and Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992), 82–84.

10. Full bibliographical details in note 18 of chapter 1.

11. Rameau’s explanation of what we call the cadential 6/4 appears in a c. 1740 manuscript treatise discussed by Thomas Christensen in “Rameau’s ‘L’Art de la basse fondamentale,’” *Music Theory Spectrum* 9 (1987): 18–41; the explanation of Charles Levens (1689–1764) appears in his *Abregé des regles de l’harmonie, pour apprendre la composition* (Bordeaux, 1743) and is discussed in Lester, *Compositional Theory*, 140; the discussion by Bach’s pupil Johann Philipp Kirnberger appears in his *Die Kunst des reinen Satzes*, vol. 2 (Berlin, 1776; facsimile ed., Hildesheim: G. Olms, 1968; English translation by David Beach and Jürgen Thym as *The Art of Strict Musical Composition* by Johann Philipp Kirnberger, New Haven: Yale University Press, 1982).

12. Johann Philipp Kirnberger, *Die wahren Grundsätze zum Gebrauch der Harmonie* (Berlin: Decker & Hartung, 1773; facsimile ed., Hildesheim: Olms, 1970; English translation by David Beach and Jürgen Thym in “‘The True Principles for the Practice of Harmony’ by Johann Philipp Kirnberger,” *Journal of Music Theory* 23 ([1979]): 163–225).

13. Bach scholar Andreas Moser posits that the *Fuga* was originally an organ fugue in G “that Bach later transposed to C major for the violin” (“Zu Joh. Seb. Bachs Sonaten und Partiten für Violine allein, *Bach-Jahrbuch* 17 [1920]: 32).

14. David and Mendel, *Bach Reader*, 315–16.

15. The story is told by C. P. E. Bach and Johann Friedrich Agricola (1720–74) in their 1754 obituary of J. S. Bach, in *Allgemeine musikalische Zeitung*, 1754; English translation in David and Mendel, *The Bach Reader*, 219.

16. Mattheson’s account appeared in his *Musikalische Patriot* (Hamburg, 1728), a collection of biographical anecdotes. An English translation appears in David and Mendel, *Bach Reader*, 81–82.

17. Johann Mattheson, *Grosse Generalbassschule* (Hamburg: Johann Christoph Kistner, 1731; facsimile ed., Hildesheim: Georg Olms, 1968), 36.

18. Johann Mattheson, *Der Vollkommener Capellmeister* (Hamburg: Christian Herold, 1739; facsimile ed., Kassel: Bärenreiter, 1958; English translation by Ernest Harriss in *Johann Mattheson’s “Der vollkommene Capellmeister”: A Translation and Commentary*, Ann Arbor: UMI Research Press, 1981).

19. Moser, “Zu Joh. Seb. Bachs Sonaten und Partiten,” 32.

Chapter 4

1. Originally recorded in 1946, Szigeti's recording was reissued in 1993 on CD under the Music and Arts label as CD-774. Gidon Kremer's 1980 recording was reissued on CDs by Philips as 416 651-2. Menuhin's 1935 recording was reissued on CD by EMI in 1989 as CHS-763035 2. Perlman's 1986–87 recording appears on CD on EMI as 0777 7 49483 2 6.

2. For example, Douglass Green explains that Bach's inventions are "contrapuntal procedures rather than forms" in his *Form in Tonal Music*, 2d ed. (New York: Holt, Rinehart & Winston, 1979), 283.

3. Hans David and Arthur Mendel, *The Bach Reader* (New York: W. W. Norton, 1945; revised ed., 1966), 277.

4. R. Efrati (Jerusalem: Central Press, 1967; London: Boosey and Hawkes, n.d.); Jean Champeil (Paris: Heugel, 1958); *Neue Bach Ausgabe*, ed. Günter Hausswald and Rudolf Gerber (Kassel: Bärenreiter, 1958). Efrati footnotes the note and suggests C as an "ossia" (in his "Introductory Remarks"). But he does not explain the reason for this change, simply listing it along with other notations that he alters for violinistic reasons.

5. For example, Joachim and Moser (Berlin: Bote & Bock, 1908); Leopold Auer (Leipzig: C. F. Peters, 1917).

6. Bonn: N. Simrock, 1802.

7. Schröder's recording was reissued on CD by the Smithsonian Collection of Recordings Classics as 0777 7 64494 25. Shumsky's recording is on CD by the Musical Heritage Society as CD DCD 454. Perlman's recording appears on CD on EMI as 0777 7 49483 2 6.

8. Heinrich Schenker offers a substantially different voice-leading analysis of these passages in the *Largo* of the C-major Sonata in his argumentative essay "Analysis of the *Largo* of Bach's C-major Sonata for Solo Violin," in *Das Meisterwerk in der Musik*, vol. 1 (Munich: Drei Masken Verlag, 1925), 63–73, which appears in an English translation by John Rothgeb as "The *Largo* of J. S. Bach's Sonata No. 3 for Unaccompanied Violin [BWV 1005]," in *Music Forum*, vol. 4 (New York: Columbia University Press, 1976), 141–159.

Chapter 5

1. Note 5 in chapter 1 provides details on these two arrangements.

2. One discussion of how a performer conceptualizes a meter and how that meter projects appears in Joel Lester, "Notated and Heard Meter," *Perspectives of New Music* 24/2 (1986): 116–28.

3. The factors that create meter and their relative strengths are discussed in Joel Lester, *The Rhythms of Tonal Music* (Carbondale: Southern Illinois University Press, 1986), Chapters 2 and 3.

4. The Three-Part Invention in A Minor appears as *Fantasia* 6 on pp. 128–29 of the facsimile edition of the *Clavierbüchlein vor Wilhelm Friedemann Bach* (New Haven: Yale University Press, 1959). Bach's autograph of the complete inventions appears in a facsimile edited by Ralph Kirkpatrick, *Johann Sebastian Bach Inventionen und Sinfonien* (New York: C. F. Peters, 1948).

5. Reissued on CD by Deutsche Grammophon as 423 294-2.

6. Edward T. Cone discusses this aspect of Bach's prelude in *Musical Form and Musical Performance* (New York: W. W. Norton, 1968), 63–65.

7. Sarasate's recording was reissued on LP by the American Stereophonic Corporation around 1960. Andreas Moser's description, probably recounting performances he had heard, appears in "Zu Joh. Seb. Bachs Sonaten und Partiten für Violine allein," *Bach-Jahrbuch* 17 (1920): 62. Moser's article is also the source of the performance anecdotes later in this paragraph.

8. Heinrich Schenker, *Free Composition*, trans. Ernst Oster (New York: Longman, 1979), chapter 4, "Meter and Rhythm," especially figures 141–49. Originally published as *Der freie Satz* (Vienna: Universal, 1935).

9. *Ibid.*, p. 126.

10. William Rothstein, *Phrase Rhythm in Tonal Music* (New York: Schirmer, 1989), vii.

11. Cone, *Musical Form and Musical Performance*, 48.

12. Friedrich Erhard Niedt, *Musikalische Handleitung*, 2d ed., part 2 (Hamburg, 1721; English translation by Pamela Poulin and Irmgard Taylor as *The Musical Guide*, Oxford: Clarendon Press, 1988).

13. Johann Mattheson, *Critica musica*, vol. 2 (Hamburg: Thomas von Wierings Erben, 1725; facsimile ed., Amsterdam: Frits A. M. Knuf, 1964), 6–7.

14. Joseph Riepel, *Grundregeln zur Tonordnung insgemein* (Regensburg: Johann Leopold Montag, 1755). A discussion of some aspects of permutations in Riepel's writings appears in Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992), 226–28.

15. Herbert Gerigk surveys dice games in "Würfelmusik," *Zeitschrift für Musikwissenschaft* 16 (1934): 359–63.

16. For example, Heinrich Schenker, "Das Organische der Fuge," in *Das Meisterwerk in der Musik*, vol. 1 (Munich: Drei Masken Verlag, 1925), 55–95.

17. "Sonate, que me veux tu?" as quoted by Jean-Jacques Rousseau (1712–78) in the article "Sonate" in his *Dictionnaire de musique* (Paris: 1768; facsimile eds., Hildesheim: Georg Olms, 1969, and New York: Johnson Reprint, 1969).

18. Carl Dahlhaus, *Die Idee der absoluten Musik* (Kassel: Bärenreiter, 1978; English translation by Roger Lustig as *The Idea of Absolute Music*, Chicago: University of Chicago Press, 1989); John Neubauer, *The Emancipation of Music from Language* (New Haven: Yale University Press, 1986).

19. His review first appeared in E. T. A. Hoffmann, *Allgemeine musikalische Zeitung*, 1810. An English translation by F. John Adams appears in the *Norton Critical Score of Beethoven's Fifth Symphony*, edited by Elliot Forbes (New York: W. W. Norton, 1971), 150–63.

20. Charles Rosen, *Sonata Forms* (New York: W. W. Norton, 1980; revised ed., 1988), chapter 2.

21. Rameau's first harmony treatise appeared in 1722 (see note 19 in chapter 1 for details); his last, the *Code de musique pratique*, in 1761. Marpurg published several works that deal with harmony in the 1750s and 1760s. Many examples in all these books are abstract chord progressions.

22. Johann Philipp Kirnberger, *Die Kunst des reinen Satzes*, vol. 2 (Berlin: 1776; English translation by David Beach and Jürgen Thym as *The Art of Strict Musical Composition by Johann Philipp Kirnberger*, New Haven: Yale University Press, 1982), chapter 1, pp. 300–305.

23. Georg Joseph Vogler, *Betrachtungen der Mannheimer Tonschule*, 3 vols. (Mannheim: 1778–81; facsimile ed., Hildesheim: Georg Olms, 1974). The most comprehensive study of Vogler is Floyd and Margaret Grave, *In Praise of Harmony: The Teachings of Abbé Georg Joseph Vogler* (Lincoln: University of Nebraska Press, 1987).

24. Gottfried Weber, *Versuch einer geordneten Theorie der Tonsetzkunst* (Mainz: B. Schott, 1817–19; 2d ed., Mainz: B. Schott's Söhne, 1824; 3d ed., 1830–32).

25. Heinrich Christoph Koch, *Versuch einer Anleitung zur Composition* (Leipzig: Adam Friedrich Böhme, 1782–93; partial English translation by Nancy Baker as *Introductory Essay on Composition*, New Haven: Yale University Press, 1983). Discussions of Koch's notions of musical structure appear in Nancy Baker, "Heinrich Koch and the Theory of Melody," *Journal of Music Theory* 20 (1976): 1–48, and Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992), chapter 11.

26. Reicha's ideas on form appear in his *Traité de mélodie* (Paris: 1814). The next note contains information on translations. A good summary of his thinking appears in Roger Graybill, "Sonata Form and Reicha's *Grande coupe binaire* of 1814," *Theoria* 4 (1989): 89–105.

27. Czerny published two discussions of forms, including sonata form. The first is in an appendix to his German translation of Anton Reicha's *Traité de mélodie* (1814), described in the preceding note: *Reicha's Compositions-Lehre* (Vienna: A. Diabelli, ca. 1832–34; reprinted in *Musiktheorie* 1 [1986]: 261–76; English translation as *Course of Musical Composition; or Complete & Methodical Treatise of Practical Harmony. A. Reicha . . . Translated from the Original (with the Remarks of Carl Czerny Translated from the German) by the Late Arnold Merrick and Edited by John Bishop*, London: Robert Cocks, [1854]). His second, somewhat different discussion appears in *Die Schule der praktischen Tonsetzkunst* (Bonn: Simrock, [1849–50]; English translation by John Bishop as *School of Practical Composition*, London: Robert Cocks, [1848]; facsimile ed. of the English translation, New York: Da Capo, 1979).

28. Marx's composition treatise is *Die Lehre von der musikalischen Composition*, 4 vols. (Leipzig: Breitkopf & Härtel, 1837–47), and many later editions; abridged English translation by Hermann Saroni as *Theory and Practice of Musical Composition*, New York: Huntington & Law, [1851]). A comprehensive discussion of Marx's ideas on form appears in Scott Burnham, "The Role of Sonata Form in A. B. Marx's Theory of Form," *Journal of Music Theory* 33 (1989): 247–71.

29. A summary of Rameau's harmonic theories appears in Lester, *Compositional Theory*, chapters 4–5. A more complete discussion of Rameau's changing thinking appears in Thomas Christensen, *Rameau and Musical Thought in the Enlightenment* (Cambridge: Cambridge University Press, 1993), chapters 4–6.

30. For example, Johann Gottfried Walther (1684–1748) suggests measure numbers and cadential goals for various dance types in his *Musicalisches Lexicon* (Leipzig: Wolfgang Deer, 1732; facsimile ed., Kassel: Bärenreiter, 1953).

31. Menuhin's 1935 recording was reissued on CD by EMI in 1989 as CHS-763035 2. Schröder's recording is on CD by the Smithsonian Collection of Recordings Classics as 0777 7 64494 25. Gidon Kremer's 1980 recording was reissued on CDs by Philips as 416 651-2. Originally recorded in 1946, Szigeti's recording was reissued in 1993 on CD under the Music and Arts label as CD-774.

32. Heifetz's recording was reissued on CD by EMI Classics in 1992 as 0777 7 64494 25.

33. RCA Victor LM 1832.

34. Robert Philip, *Early Recordings and Musical Style* (Cambridge: Cambridge University Press, 1993).

35. Busch's recording of the D-minor Partita was reissued on CD by EMI in 1990 as CDH 7 63494 2.

Chapter 6

1. Throughout this chapter, a single spelling (in standard English where possible) is used to refer to each movement type. Bach himself uses a variety of spellings, such as the French *Bourrée* for the Bourrée in the E-major Partita and the longer Italian phrase *Tempo di Borea* (tempo of a bourrée) for the Bourrée in the B-minor Partita.

2. This meaning probably is related semantically to the seventeenth-century English term "divisions," which refers to ornamented variations, especially those improvised over a ground bass, as in the title of *The Division-Violist; or, an Introduction to the Playing upon a Ground* by Christopher Simpson (c. 1605–69) (London, 1659; facsimile ed., ed. Nathalie Dolmetsch, New York: Schirmer, 1955).

3. For example, *Partite sopra Christ der du bist der helle Tag* (Variations on "Christ, Thou Who Art the Bright Day"), BWV 766, and *Partite sopra O Gott du frommer Gott* (Variations on "O God, Thou Pious God"), BWV 767.

4. Hans David and Arthur Mendel, *The Bach Reader* (New York: W. W. Norton, 1945; revised ed., 1966), 447.

5. Complete bibliographical details appear in note 8 of chapter 2.

6. The most comprehensive study is *Dance and the Music of J. S. Bach* by Meredith Little (Bloomington: Indiana University Press, 1991).

7. Robert Cogan and Pozzi Escot pursue the matter of numerical proportions in the *Chaconne* in greater detail in *Sonic Design* (Englewood Cliffs, N.J.: Prentice Hall, 1976), 261–64.

Chapter 7

1. A few examples are Thomas Christensen, *Rameau and Musical Thought in the Enlightenment* (Cambridge: Cambridge University Press, 1993); Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992); Christopher Hatch and David Bernstein, eds., *Music Theory and the Exploration of the Past* (Chicago: University of Chicago Press, 1993); David Damschroder and David Russell Williams, *Music Theory from Zarlino to Schenker: A Bibliography and Guide* (Stuyvesant, N. Y.: Pendragon, 1990); and Ian Bent, ed., *Music Analysis in the Nineteenth Century*, 2 vols. (Cambridge: Cambridge University Press, 1994).

2. Two recent historical surveys are Mark Evan Bonds, *Wordless Rhetoric: Musical Form and the Metaphor of the Oration* (Cambridge: Harvard University Press, 1991); and Andreas Liebert, *Die Bedeutung des Wertesystems der Rhetorik für das deutsche Musikdenken im 18. und 19. Jahrhundert* (Frankfurt: Peter Lang, 1993). Elaine R. Sisman bases much of her discussion in *Haydn and the Classical Variation* (Cambridge: Harvard University Press, 1993) on rhetorical attitudes.

3. Carl Schachter, "The *Gavotte en rondeaux* from J. S. Bach's Partita in E Major for Unaccompanied Violin," *Israel Studies in Musicology* 4 (1987): 7–26.

4. James Webster, *Haydn's "Farewell" Symphony and the Idea of Classical Style: Through-Composition and Cyclic Integration in His Instrumental Music* (Cambridge: Cambridge University Press, 1991).

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(Musical works, including editions of Bach's solo-violin works, are listed in the index.)

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