Mid-Bar Downbeat in Bach's Keyboard Music[1]

Charles Burkhart

All musicians will recall confronting passages in which the downbeat seems to fall in the middle of the bar—passages in which the player (or listener) *feels* "1 2 3 4" when the score is actually saying 3 4 | 1 2. I will call this phenomenon mid-bar downbeat. It can occur only in duple meters, of course—most readily in those with four pulses to the bar. It is often referred to as "metrical displacement" in that the downbeat is "displaced" from its normal position to an abnormal one. Such a downbeat is also sometimes said to cause a "metrical dissonance" because the listener, not expecting the main downbeat to shift from 1 to 3, experiences a kind of rhythmic bump, gentle or otherwise, when it does. A general virtue of mid-bar downbeat is that it promotes flexibility of phrasing and the avoidance of "four-squareness." But it functions differently in different musical periods because each period has its own rhythmic style.

Since I am discussing Bach here, it is necessary to point out at once that one encounters in early eighteenth-century music, Bach's included, many cases that *look* like mid-bar downbeat, but that are not experienced as such. As Floyd Grave has shown in an excellent article,[2] eighteenth-century music employed various types of qua-

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[1]An earlier form of this article was read as a paper at the Second International Schenker Symposium, Mannes College of Music, New York City, March 27-29, 1992.

[2]Floyd K. Grave, "Metrical Displacement and the Compound Measure in Eighteenth-century Theory and Practice," *Theoria* 1 (1985): 25-60. The following account of eighteenth-century metric theories is based on Grave. On metrical displacement I take no issue with Grave, who covers the subject very thoroughly. What I attempt to offer here is a Schenkerian view of it. For an equally penetrating study of mid-bar downbeat in the Classic era, see Grave's "Common-Time Displacement in

druple meter. One quite common type, manifested in pieces that motivically emphasize half-bar units, was called "compound (*zusammengesetzte*) 4/4"—that is, 4/4 conceived as compounded of two bars of 2/4 time, or 1-2 1-2. As described by early eighteenth-century theorists, the first and third quarters of compound 4/4 are of *equal* weight. Therefore pieces in this kind of meter could just as well be barred in 2/4 with twice the number of bar lines, and no shift of accent can be produced. But theorists writing later in the century, notably Kirnberger, found the first and third quarters to be *un*equal and went on to characterize the first and second halves of the bar as *strong* and *weak*.[3] This makes a very significant difference: it makes beat 3 less strong than beat 1. Also, it makes it possible to perceive the four quarters as a measure of 2/2 time, or, to put it another way, as a kind of "hypermeasure" of two 2/4 bars—one strong, one weak. These two different theoretical explanations of the compound measure were of course the result of a gradual change in musical style. By the late eighteenth century the type of 4/4 measure conforming to the Kirnberger model had become the norm and has remained so to the present.

Mid-bar downbeat cannot be understood without reference to the larger concept of the musical phrase. I have found it helpful to conceive of the phraseology of Bach's music in terms of two basic types—periodic and non-periodic, or regular and irregular. Representing the periodic are the dances, which often feature phrase lengths of 2, 4, or 8 bars. Tending toward the non-periodic are genres of an improvisatory character, such as prelude, toccata, fantasia, and

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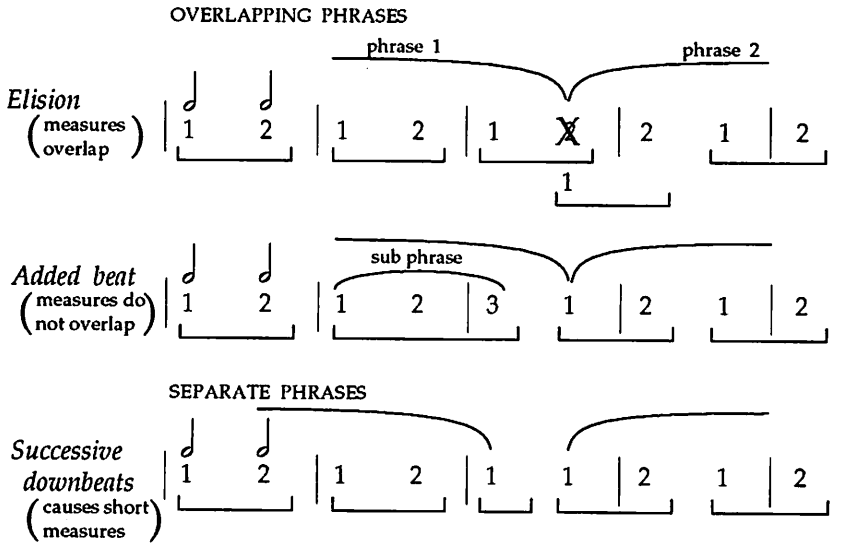
Mozart," *Journal of Musicology* III/4 (Fall 1984): 423-442. Among recent Schenkerian studies that contain significant contributions to the understanding of mid-bar downbeat are Carl Schachter, "Rhythm and Linear Analysis: Aspects of Meter," *The Music Forum* VI/1 (1987): 1-59, especially 17-22 and 53-58; and William Rothstein, *Phrase Rhythm in Tonal Music* (New York: Schirmer Books, 1989), 126, 136, and especially 199-213, which are a discussion of metrical displacement in Mendelssohn's *Songs without Words*.

[3]J.P. Kirnberger, in *Die Kunst des reinen Satzes in der Musik* (1776) (*The Art of Strict Musical Composition*, trans. David Beach and Jurgen Thym, [New Haven: Yale University Press, 1982], 392), explains the metrical hierarchy of the four-quarter measure as 1 2 3 4.

fugue. The slower fugues, particularly those in the *stile antico*, represent the non-periodic side to the most extreme degree. Of course, my two types are actually the two ends of a spectrum. All kinds of situations exist in between, especially in the music of Bach, who wrote fugal dances and dance-like fugues. As for mid-bar downbeat, its effect emerges more clearly when the phrases are both periodic and in rapid tempo. For these reasons the often-remarked fugal entrances on the second half of a measure are generally not heard as such in moderate- to slow-tempo fugues, such as *WTC I*'s C minor fugue. The meter in these fugues is of the older—the 2 x *equal*-2/4—type. But in the pieces I discuss below, regular periodicity and/or faster tempo create unequal (strong/weak) half measures. Thus they employ the later type of compound meter (the "Kirnberger type"), and mid-bar downbeat—that is, a reinterpretation of a written beat 3 to a perceived beat 1—can and does occur. The displacements in most of these pieces are also coordinated with formal divisions of the composition, a factor that would seem to increase their significance.

Since the "modern" compound measure is, as noted, readily perceived as 2/2, I use half notes in Figure 1, which pictures three ways in which mid-bar downbeat comes about. The two most common ways are *elision* and *added beat*. The third, *successive downbeats*, is rarer in Bach but I include it here for the sake of theoretical completeness. Elision and added beat are both the result of overlapping phrases. Of the two, elision is the more drastic because here not only the phrases but also the measures overlap, causing the listener to reinterpret a 2 as a 1. What I call "added beat" (that is, an added half measure) is perceived as producing a measure of 3/2. Very common in non-periodic phrasing, it often occurs just before a given phrase overlaps with the next. The resulting 1-2-3 usually forms a kind of small sub-phrase, often a 3rd-progression. Added beat produces only the very gentlest of bumps. Far from causing a disruption, it promotes the surface evenness and plasticity of phrasing so characteristic of Bach's style. In the case of "separate" (non-overlapping) phrases, the only possible displacement technique is

Figure 1. Three ways of producing mid-bar downbeat



ment technique is that of *successive downbeats*, resulting in a shortened measure.[4]

Example 1, the Allemande of the E major French Suite,[5] is a classic example of eighteenth-century "compound 4/4" (see my 1-2's under the first system). Much could be said about the rhythmic subtlety (not to mention the voice leading and form) of this ingratiating piece, but I will note only its three elisions (marked X, Y, and Z), all of which occur on the half-bar level. The first of these—at m. 8b—shifts the meter out of phase with the bar lines until m. 12. Here a doubling of the normal length of the closing B major chord brings the meter back into phase. In the second large section—m. 13

[4]Rothstein's discussion of phrase irregularity and phrase linkage in *Phrase Rhythm*, 33-63, includes most of the concepts identified in Figure 1. Instead of "elision," he prefers Schenker's term, "reinterpretation." Various authors have spoken of "extra" or "additional" beats or measures.

[5]Mid-bar downbeat is rather frequent in the allemandes of Bach's keyboard suites.

back into phase again. The diagram at the bottom of Example 1 shows that all three elisions occur at the cadential points of the piece's largest phrases.

Example 2, the "Little" Prelude No. 8, or *Preambulum*, as Bach called it, is of a very different rhythmic world from that of the Allemande, though it still clearly features compound measures. At m. 8a the prevailing 1-2's are modified by an "added beat" (see the encircled 1 2 3). Then the 1-2's resume—but out of phase, of course.

Let us take a closer look at mm. 5-8. As the reduction shows, the octave a^2-a^1 is here filled in with descending stepwise half notes. These half notes could have reached their goal—a^1—on the downbeat of m. 8, had they been disposed rhythmically as shown in Example 3. But Bach has *evenly* paced them, thus delaying their goal by half a bar. Not only is bar 8b a "mid-bar downbeat" then, but the entire octave descent (bars 5-8b) is an example of what Schenker calls "serving the diminution organically"[6]—a cryptic expression that Carl Schachter has elucidated as follows:

> A group of bars serves a diminution organically if the *tonal* rhythm [as opposed to the *durational* rhythm] determines the number of bars [or, as here, *half* bars]. This will happen if the elements of the diminution *maintain an even pace*, thereby restricting the role of durational rhythm to an irreducible minimum.[7]

In the Little Prelude, because the eight notes that fill the octave are *evenly paced*, the goal (the lower a) arrives on the second half of a measure. This arrival on the lower a, because of its *tonic* harmony, produces a *tonal* accent that imparts a sense of downbeat at bar 8b. At the same point, the next phrase begins.

In non-periodic phrasing, *tonal* rhythm—the sense of accent imparted purely by the tonal functions alone—holds sway over *durational* rhythm much of the time. This general condition promotes (among many other things) the generation of mid-bar down-

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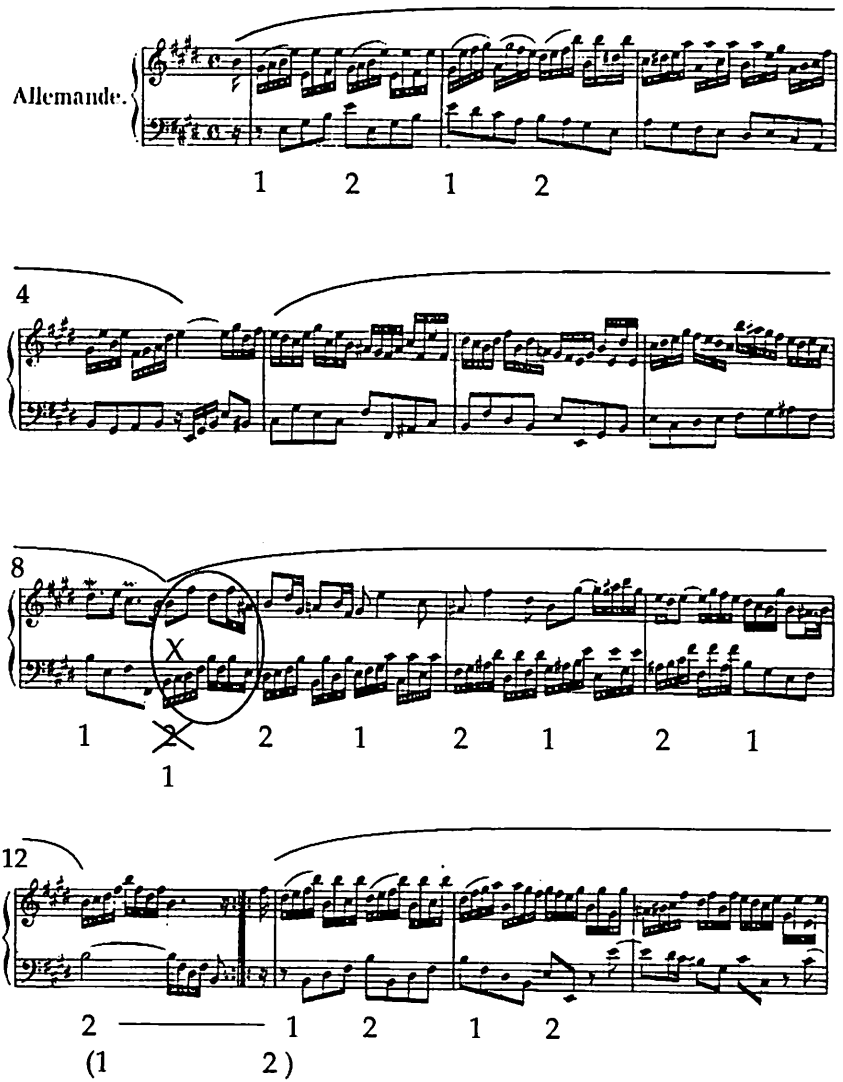
[6]Heinrich Schenker, *Free Composition*, trans. Ernst Oster (New York: Longman, 1979), 124 (Par. 297).

[7]Schachter, "Aspects of Meter," 41 (italics mine). For Schachter's theory of "tonal" and "durational" rhythm, see "Rhythm and Linear Analysis: A Preliminary Study," *The Music Forum* IV (1976), 313-316.

Example 1. J. S. Bach, Allemande, French Suite No. 6 in E Major



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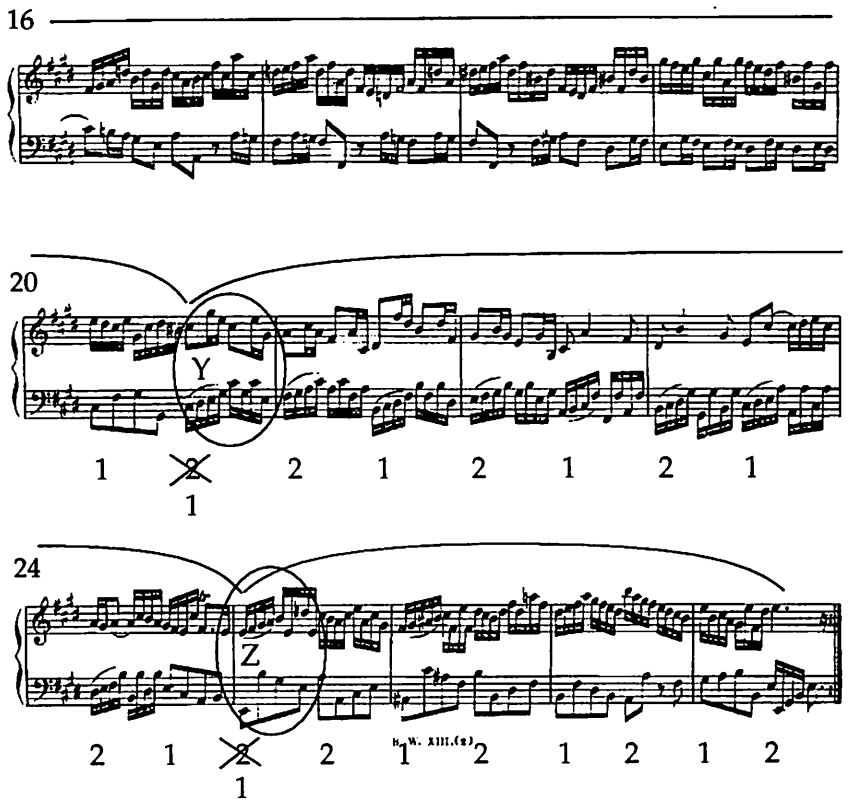
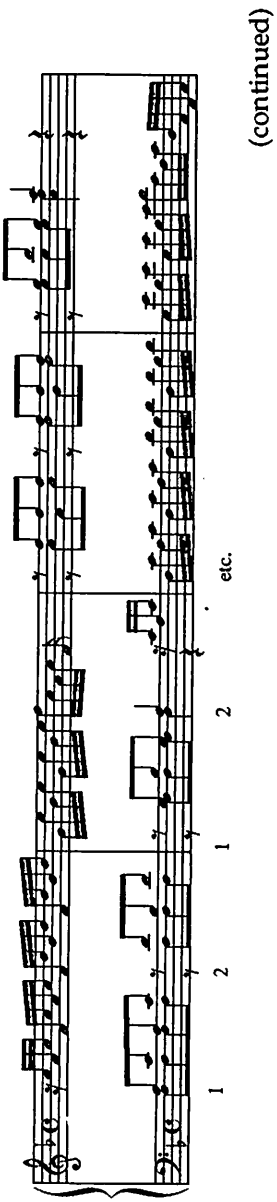
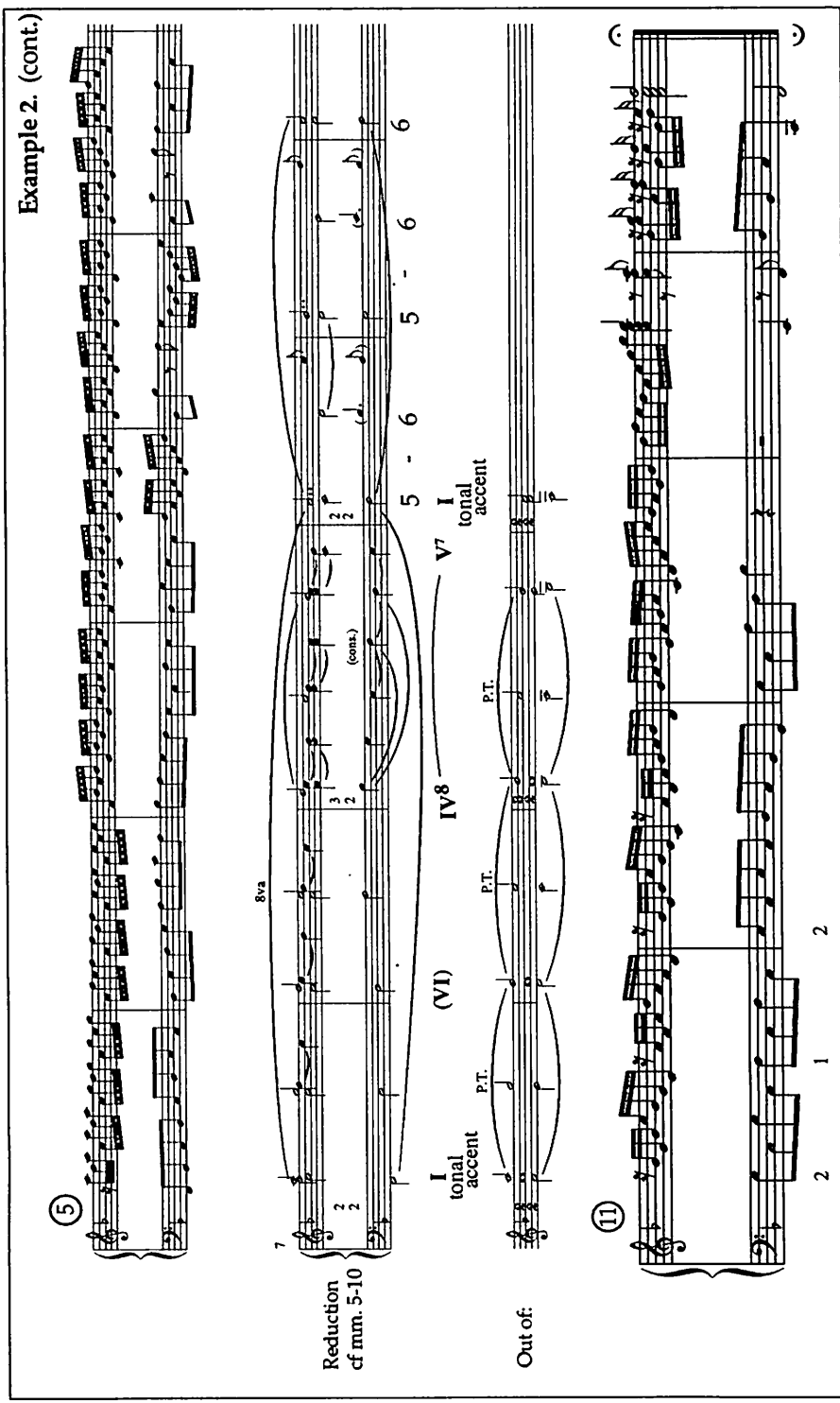
Example 1. (cont.)

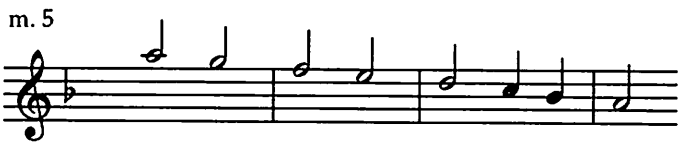


Example 2. J. S. Bach, "Little" Prelude No. 8 in F major




Example 2. (cont.)
5
8va
(cont.)
Reduction
cf mm. 5-10
I
tonal
accent
(VI)
IV8
V7
I
tonal
accent
P.T.
P.T.
P.T.
P.T.
Out of:
11
5 - 6
5 - 6
2 1 2

Example 3. Recomposition of "Little" Prelude No. 8, mm. 5-8



motes (among many other things) the generation of mid-bar downbeat.[8]

A richer case is Example 4, the A major two-part invention. Since the measures divide very clearly into strong-weak halves, and since two-bar measure groups are quite prominent throughout, the metrical displacement at bar 12b is quite noticeable, albeit very gentle. There are just two displacements in this piece. The elision at 12b, which dissipates the looming threat of too many two-bar hypermeasures, throws the meter out of phase until the added third beat at 17b. It seems noteworthy that this out-of-phase passage is constantly modulating, developmental, and contains no full statement of the subject, and that measure 18, the point of return to metrical normalcy, is simultaneous with the return not only of the subject but of the structural tonic as well.

This example is particularly interesting because the displacement apparently mixed up Bach himself as he was writing the piece down for the first time. Example 5 is a facsimile of a page of the manuscript of the first version of the invention, as found in the *Clavier-Büchlein vor Wilhelm Friedemann Bach.*[9] As Bach moved from the second to the third system he forgot that the meter was dis-

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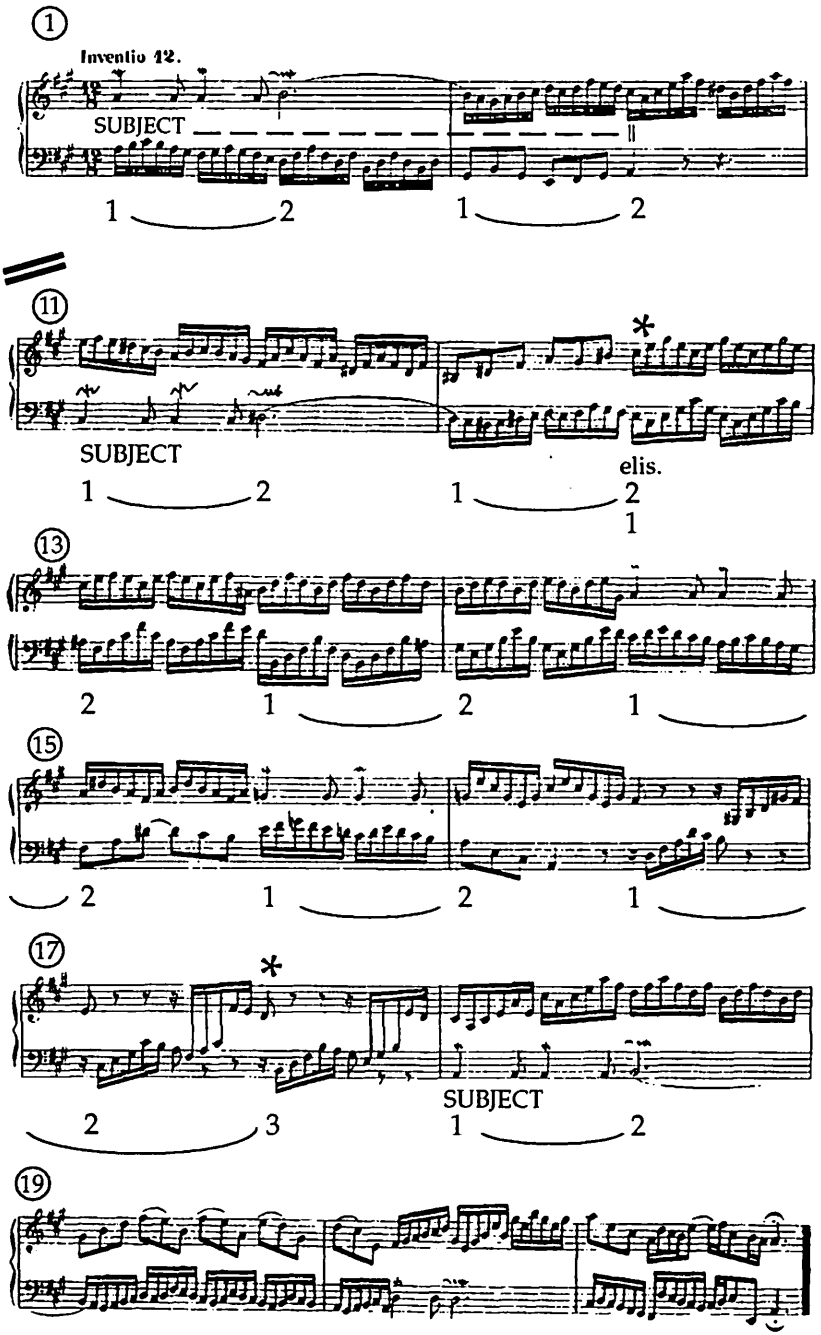
[8]Schenker's unpublished 1929 analysis of this Little Prelude (New York Public Library, Oster Collection, File 69/75) reveals that he also heard the metrical displacement I have described here. His sketch distinguishes between the perceived and written downbeats by means of light and heavy bar lines.

[9]Johann Sebastian Bach, *Clavier-Büchlein vor Wilhelm Friedemann Bach,* edited in facsimile with a preface by Ralph Kirkpatrick (New Haven: Yale University Press, 1959), 90-91.

Example 4. J. S. Bach, Two-part invention No. 12 in A Major



placed and wrote three wrong bar lines which he then had to cross out and replace with correct ones. This manuscript error seems to leave no doubt that the displacement exists and that Bach felt the two halves of the written measure as strong to weak.

Example 6, two passages from the A minor invention, requires little comment. Example 6a illustrates *successive downbeat* (see the "N.B."). Earlier in the piece—at measure 6b—an important displacement has occurred that determines the perceived meter of this passage. The reduction further clarifies my interpretation of the meter. Example 6b shows the invention ending out of phase. Being nonperiodic, like the Little Prelude, it is not required to end in phase.

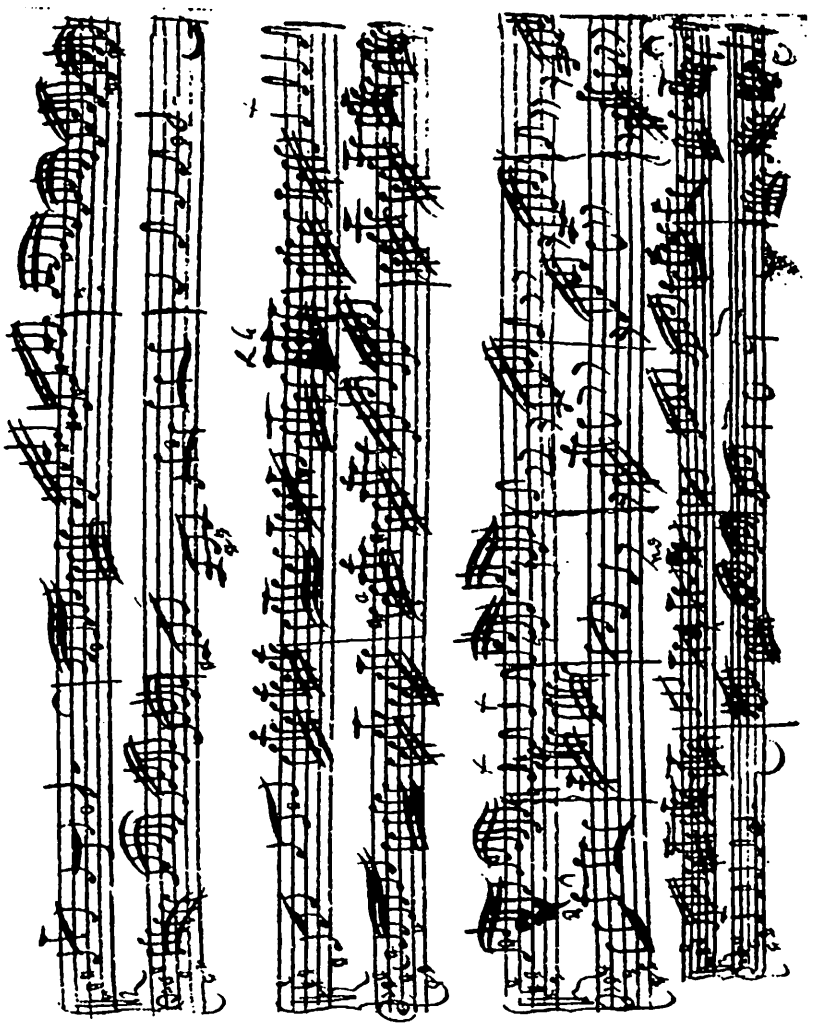
The gigue from the G major French suite returns us to the rhythmic world of the dance, but here the accouterments of fugal style require that the phrases feature much rhythmic irregularity (Ex. 7). Unlike the meter of the *WTC I* C minor fugue mentioned earlier, the meter of this "fugue" (thanks to the design of its subject, which clearly divides each bar into strong and weak halves) is able to produce displacement. It has eight instances of added beat, the first shifting the meter by half a bar, the second putting it right again, and so on. The exposition is metrically regular, but during the first episode, the added beat in 12a causes the next statement of the subject to begin in the second half of the bar (14b).

Example 7 shows only the first large section of the gigue, in which just two of the eight displacements occur. The accompanying reductions show not only how the rhythmic displacements are coordinated with the quite complex voice leading and the harmonic structure but also how they are produced by equal pacing.

An unusual manner of barring characterizes my concluding Example 8, the first version of the sinfonia (or "three-part invention") No. 13 in A minor. In this version (also found in the *Clavier-Büchlein*, where it is called *Fantasia 6*) Bach used the uncommon practice of alternating short and long bar lines.[10] Modern scholars

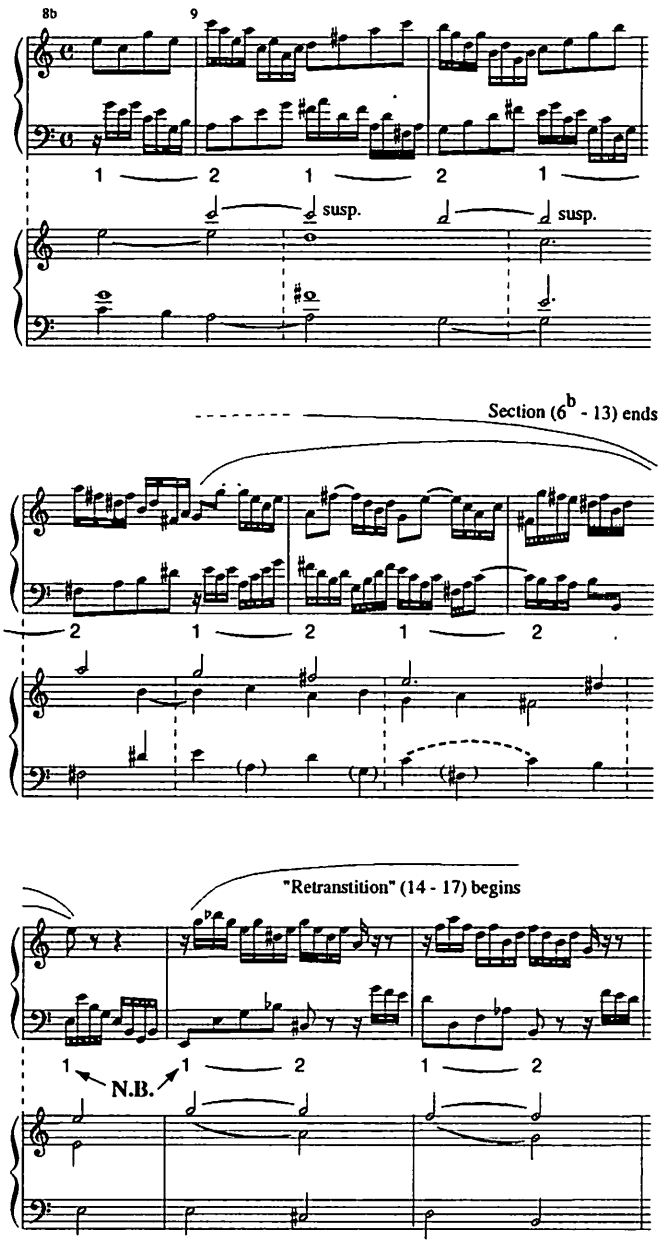
[10]Example 8 is reproduced from pages 128-129 of the facsimile edition cited in footnote 9. The unusual manner of barring is not unique to this piece. Bach notated some half dozen keyboard works in this way, but in nearly all cases he abandoned it when making later copies. (See David Schulenberg, *The Keyboard Music of J. S. Bach* (New York: Schirmer Books, 1992), 466, under "Double Measures.") Bach retained it in the Presto of the

Example 5. Facsimile of the concluding page of the first version of the A major invention. The piece is included in the *Clavier-Büchlein vor Wilhelm Friedemann Bach*, where it is called "Praeambulum 9."



Example 6. J. S. Bach, Two-Part Invention No. 13 in A minor

a) mm. 8b-15. See successive downbeats at N.B.



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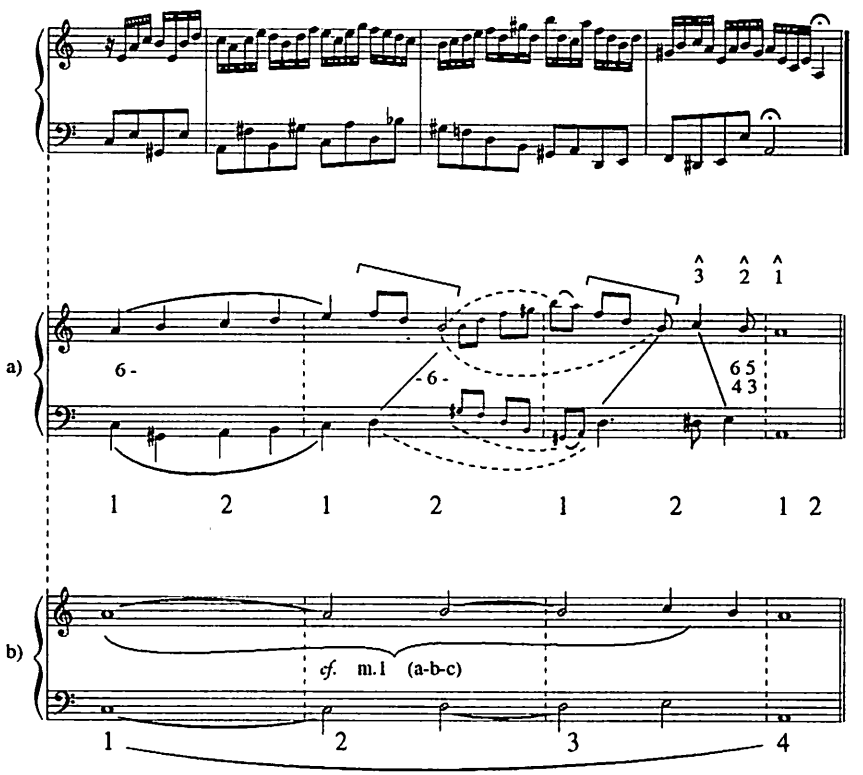
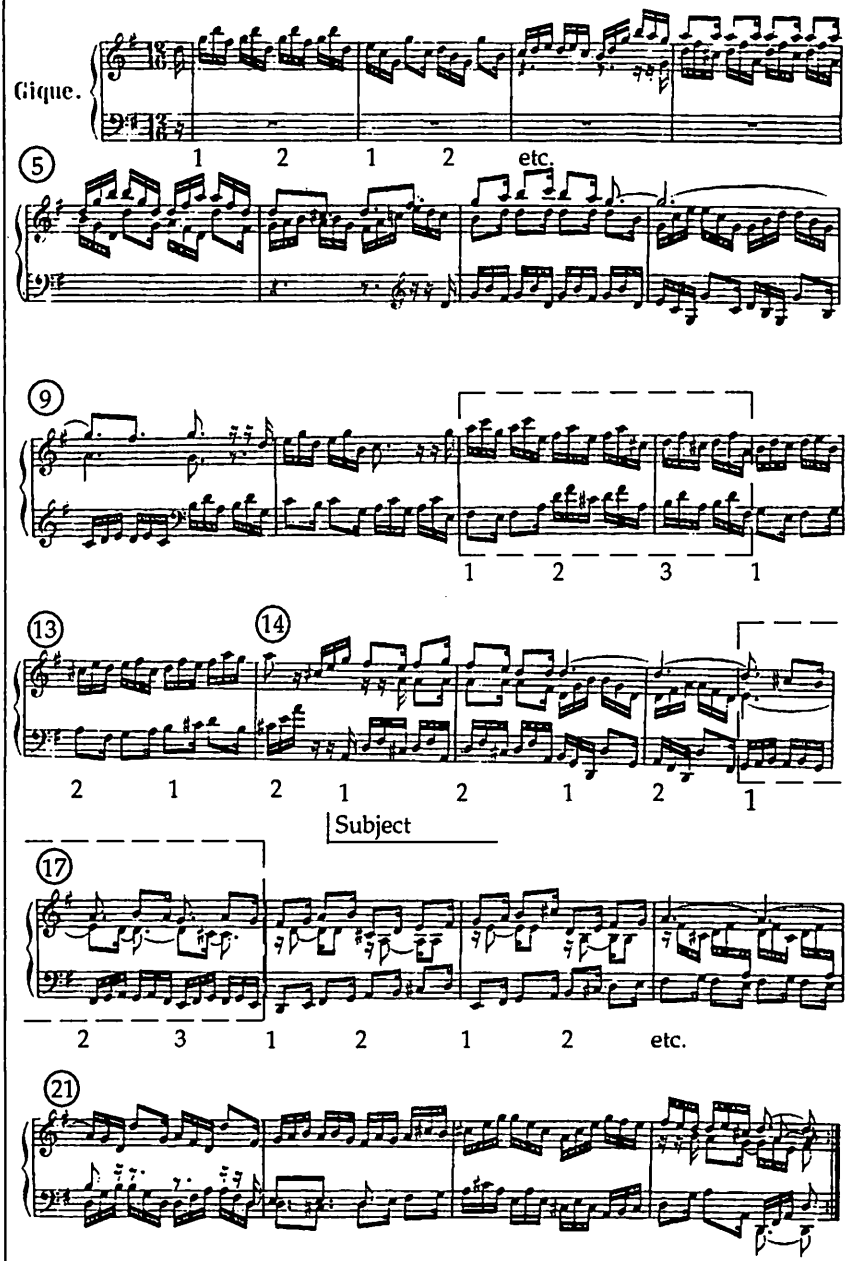
Example 6. (cont.)

b) mm. 22b-25. The piece ends out of phase with the barring



Example 7. J. S. Bach, Gigue, French Suite No. 5 in G major, mm. 1-24.



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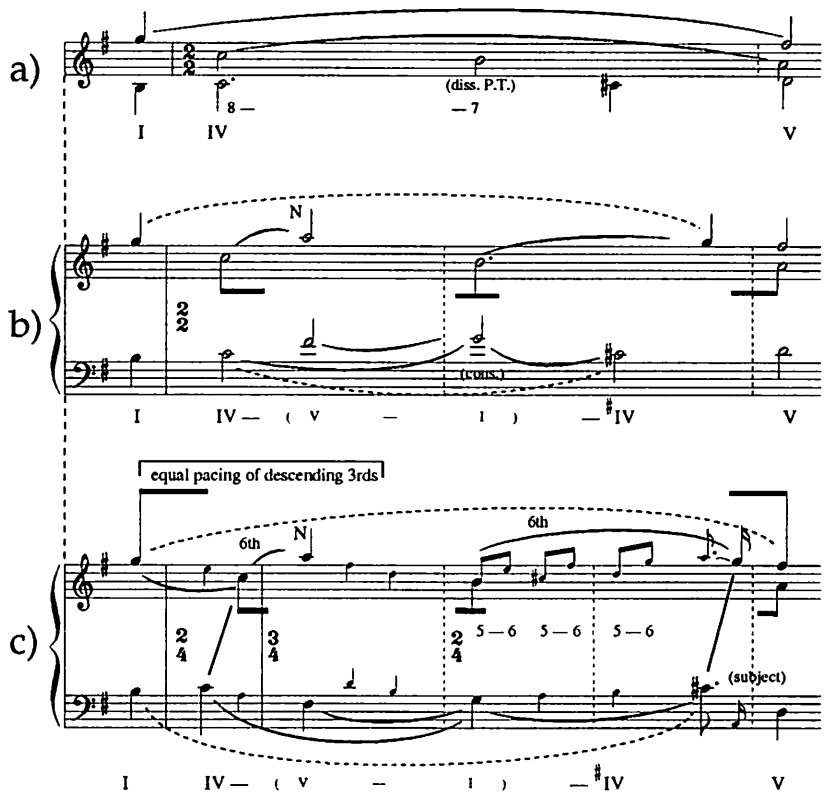
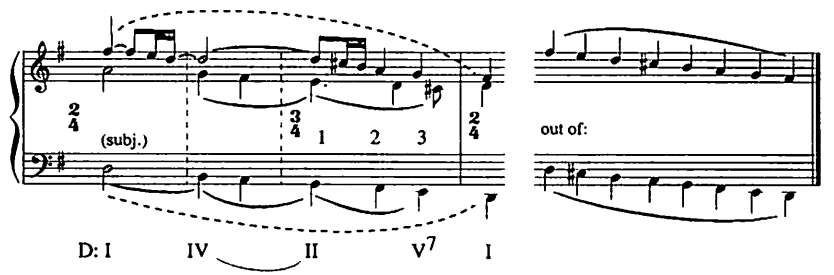
Example 7. (cont.)

Mm. 9^{b} - 14^{b}



Mm. 14^{b} - 18^{a}



do not know precisely what this unusual manner of barring means, but assume that it was intended to picture both the single 3/8 measures and the two-bar hypermeasures. I believe that it also means that the three-beat units are to be somewhat more pronounced than they would be in the more flowing 6/8 meter.

This charming piece in trio-sonata texture incorporates fugal procedure, even stretto, without seeming the slightest bit "learned." Of its many rhythmic subtleties, what chiefly concerns us here is that its four episodes are all precisely spanned by metrical displacement. All begin with an elision, and (except for the very last) end with another elision or an added beat. As a result, throughout each episode Bach's differentiated bar lines are out of phase. These displacements give the piece something of the metrical irregularity typical of fugue, and, in particular, they counter the effect of periodicity produced by the fact that all the statements of the four-bar subject begin on the first bar of a four-bar hypermeasure.[11]

Close scrutiny of Bach's manuscript reveals that, again, one of the displacements tripped him up: notice in Example 8, fifth system, that my arrow at "N.B." points to a bar line that "should" be short. (Did Bach try to cross out his error in the left hand staff?) I think he made this little slip because he felt an elision occurring at the start of Episode II. See the end of the previous system and the metrical analysis below it, and then try playing this spot *without* feeling an elision here. It should be noted that when Bach later came to make the fair copy of this piece, he opted for conventional barring, perhaps concluding that the short and long bars introduced complications better avoided (Ex. 9[12]). But this in no way alters the effect of the displacements.

G minor solo violin sonata. Handel and Telemann also used this manner of barring. As far as I have been able to discover, it is not discussed by theorists of the time.

[11]Similar displacements enclose the "transition" (mm. 8-12) within the exposition. Here the prolongation of V together with the dropping out of the bass create the impression, at least to me, of bar 8 being extended for five measures.

[12]Johann Sebastian Bach, *Two- and Three-Part Inventions,* Facsimile of the Autograph Manuscript, with an introduction by Eric Simon (New York: Dover Publications, 1968), 56.

Specialists in music theory will note that I have said little here about higher rhythmic levels, and they could raise the objection that mid-bar downbeat can be fully understood only within a larger theoretical construct. I would agree, but am uncertain what that larger construct is. We are on firmer ground with Classic-Romantic rhythm because it features regular periodicity (four- and eight-bar phrases) to a much greater extent than Baroque rhythm does. A more comprehensive theory of Baroque rhythm[13] will make it possible to address the problem of higher-level rhythm, and to understand details like mid-bar downbeat even better.

But meanwhile, does our present knowledge of mid-bar downbeat have a bearing on performance? Since most mid-bar downbeats are so intimately connected with *phrases*—they demarcate points where phrases of some kind overlap—performers certainly should be aware of them. Does that mean they should make a special effort to "bring them out?" I would say yes, at least in the general way that a sensitive performer responds to a normal phrase overlap, the kind occurring at the beginning of the bar. True, no overlap can be treated exactly as one would treat a full stop because the overlap impels the momentum on. For that reason it could be argued that all overlaps, wherever they may occur, should simply be allowed to "speak for themselves"—that trying to "bring them out" risks getting too fussy. I would concur that perhaps some cases, especially those in works of very brisk tempo, might better be left alone, but I feel that many *mid-bar* overlaps, precisely because their occurrence in mid-bar makes them relatively unexpected, ask to be expressed in some way—to be given some kind of subtle emphasis. Such an emphasis can be sonic—a change of dynamic or color; it

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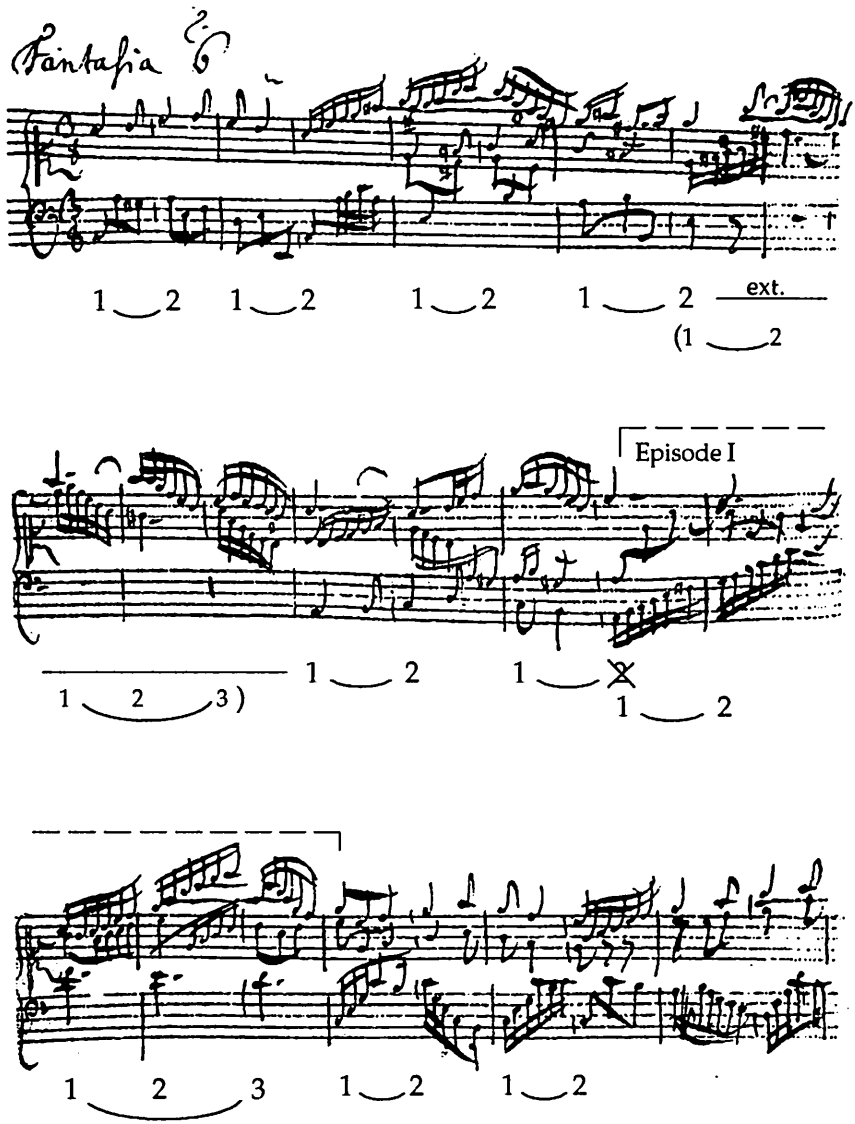
[13]Recent studies bearing on this elusive subject are Mauro Botelho, "Meter and the Play of Ambiguity in the Third Brandenburg Concerto," *In Theory Only* 11/4 (Feb. 1990): 1-35; Justin London, "Metric Ambiguity (?) in Bach's Brandenburg Concerto No. 3," *In Theory Only* 11/7-8 (Feb. 1991): 21-53; and Channan Willner, (1) "Metrical Displacement in Handel's Instrumental Music," unpublished article, 1985 (expanded version to appear in the author's forthcoming doctoral dissertation, CUNY), and (2) "Nascent Periodicity and Bach's 'Progressive' Galanterien," paper read at the annual meeting of the American Musicological Society, Pittsburgh, 1992.

Example 8. Facsimile of the first version of the "three-part invention" No. 13 in A minor, mm. 1-45. From the *Clavier-Büchlein* (begun 1720), where it is called "Fantasia 6." (The space between the systems has been widened and analysis inserted.)



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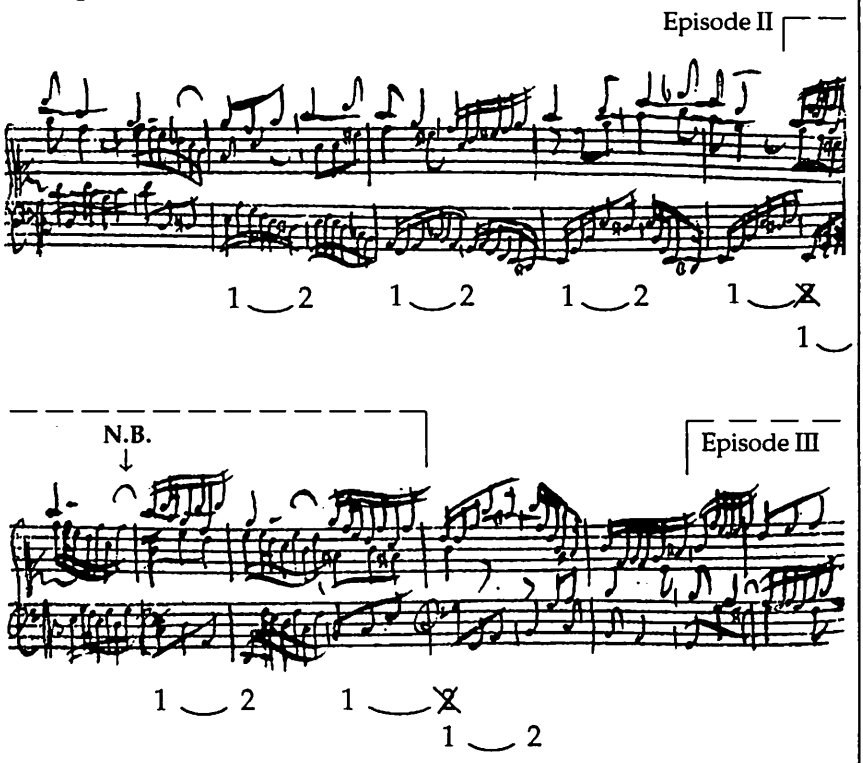
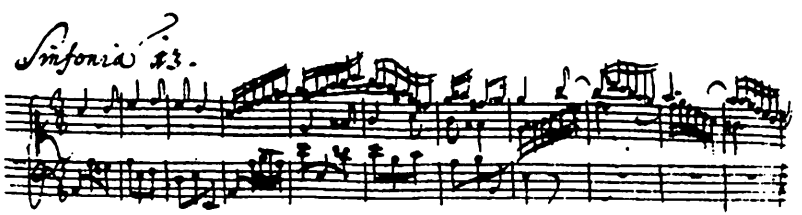
Example 8. (cont.)



Example 9. Facsimile of the beginning of the Sinfonia 13. This is the second version of the piece as given in the fair copy of the "two- and three-part inventions," 1723.

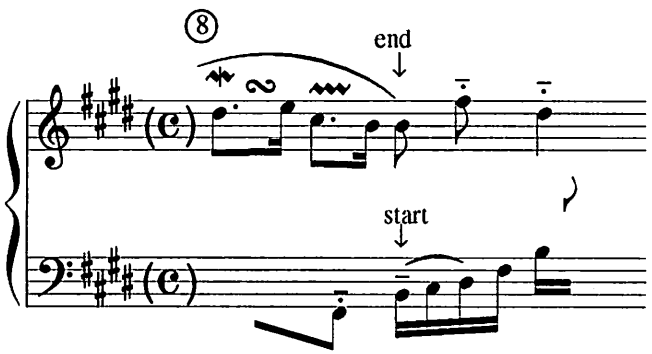


can be rhythmic—a more deliberate "placing" of the beat, or a slight lengthening of the beat's first note; or it can be achieved by a combination of sonic and rhythmic elements. There are many possible ways to do it. Exactly how will depend on the context of the individual case, the type of instrument, and, of course, the performer's personal style.

So how might I actually perform a few of the examples I have shown above?

To project the elision at the beginning of m. 8b of the Allemande (Ex. 1), I suggest proceeding as shown in Example 10.

Example 10. Performance of m. 8, Allemande from French Suite No. 6



Release the left hand's low F#, then treat the following B as a fresh start by attacking it firmly, perhaps with a bit more tone and/or a slight tenuto. This B is of course both end and start, but think start. No ritard! This would be bad for many reasons; for one, it will weaken the sense of a start. Meanwhile the right hand should make its b^1 sound like an *end.* Phrase into it. Set it off from what follows. Then think of 8b-9a as one four-beat measure consisting of just one B-major harmony, and allow it to sound "static" by maintaining a relatively uniform touch until the downbeat at 9b.

I intend the performance advice offered here to be basically applicable to both piano and harpsichord. Of course, pianists will avail themselves of their instrument's greater resources for dynamic

shading to project the metrical structure, and harpsichordists will make a greater use of tiny rhythmic inequalities and other articulations to the same end. The structure remains the same, after all.

In the A major invention (Ex. 4), the large sequences initiated at bar 12b will cause the listener to reinterpret this point as a "1." It is quite defensible to play straight through this point without nuance, as many players do. Personally, I like to shift to a slightly different color or texture at this point by "binding" (holding down the keys) through each harmony if I'm playing the harpsichord, or similarly pedalling slightly if playing the piano. Since the entire 12b-14a is so homogeneous, the new color should be maintained throughout these two bars.

The "Little" Prelude in F (Ex. 2) virtually cries for a special performance of its mid-bar downbeat (m. 8b). Prepare for this point as you play bars 5 and 6: in each of these two bars the design of the chordal sequence (see reduction in Ex. 2) creates an obvious metrical "1-2," or "strong-weak." Play these strongs a little more firmly than the weaks.[14] It will now take a bit more skill to shape the unexpected "1-2-3" covering bars 7-8a: lighten up on the "2" and especially the "3." (On the piano a slight decrescendo can be effective here.) At 8b the left hand leads. Attack its sixteenths quite firmly and legato. (The harpsichordist should rhythmically "place" the beginning of 8b and further emphasize this beat by binding the left hand chord.) At 9a lighten up again and detach the Bb's (see Ex. 11).

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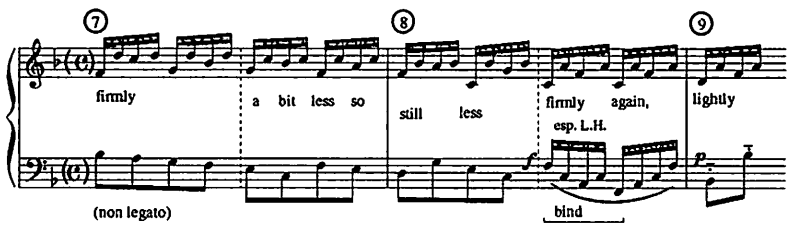
[14]In speaking to students one needs to make it quite clear that the terms "strong" and "weak," as in "strong and weak beats," are conceptually totally different from "loud" and "soft." Grosvenor W. Cooper and Leonard B. Meyer long ago made this important point in *The Rhythmic Structure of Music* (Chicago: University of Chicago Press, 1960), 8, where they distinguished between "accent," which is purely metrical, and "stress," which is dynamic. But while it is true that accent exists wholly independently of stress, it is also true that in performance the two are often intimately related, and that a performer will often use stress, however slight, to make accent clear. Couched in Cooper and Meyer's terms, the sentence before this footnote would read: "Give slightly more stress to the accented beats than to the unaccented."

Example 11. Performance of mm. 7-9, "Little" Prelude No. 8



a^1 to be a suspension over bass Bb and therefore think that it should be leaned on and released in the traditional manner. Not so. I cannot fully discuss here the unusual and complex voice leading of this passage, but the bass Bb is its least determining element, as the reduction in Example 2 shows. Therefore this Bb cannot turn the a^1 above it into a very meaningful suspension. To the extent it can be said to do so, that suspension would be of the rare kind that occurs on a weak rather than a strong beat.

In the search for an effective way to perform this and all the other mid-bar downbeats I have cited in this article, the most important thing is the player's *awareness* of them. Awareness (coupled, of course, with imagination and taste) will lead to the discovery of a way of projecting them that is best suited to the interpretive style and external conditions of the particular performance at hand.