William E. CAPLIN

Cadence in Fugue: Modes of Closure in J. S. Bach's Well-tempered Clavier

Abstract

In the traditional theory of fugue, the issue of cadence is normally relegated to a minor role, with only cursory attention given to how cadences articulate various modes of closure within a fugue. This article offers new perspectives on cadential practice in fugue based on a comprehensive examination of J. S. Bach's *Well-tempered Clavier*. Using some fundamental concepts of tonal cadence in general, including a strict delimitation of its harmonic content, a consideration of its formal scope of closure, and a set of cadential deviations, I investigate how cadence operates both to articulate formal boundaries and to realize potentialities for cadence that may not have a clear formal role. The study relies extensively on a distinction between *subject-ending cadences* (of limited formal scope) and *independent* cadences (not associated with the end of the subject)—the latter, more than the former, being responsible for major points of formal closure. I explain why a fugue's exposition rarely ends with a cadence and consider those exceptional cases where the end of the fugue brings a subject-ending cadence. The article concludes with analyses of cadential practice in three complete fugues (in D major, E major, and G minor, all from book I of the *WTC*).

Keywords

fugue, cadence, harmony, subject-ending cadence, independent cadence

MUSIC THEORY & ANALYSIS International Journal of the Dutch-Flemish Society for Music Theory VOLUME 7, # I, APRIL 2020, 180–239 pedagogy © William E. Caplin and Leuven University Press https://doi.org/10.11116/MTA.7.1.4

Cadence in Fugue: Modes of Closure in J. S. Bach's Well-tempered Clavier*

William E. CAPLIN

The recent flourishing of theoretical speculations on musical form has largely been directed to the full-movement sonata, rondo, and concerto forms associated with instrumental genres of the classical era. When the new *Formenlehre* looks back to earlier Baroque and galant styles, it tends to focus on precursors of these formal types.¹ Left relatively undiscussed is fugue. Indeed, fugal theory has lagged woefully behind, with only sporadic contributions scattered among the standard theory journals.² Inasmuch as issues of closure are central to current theories of form, an examination of how cadence operates in fugue would seem to be an ideal point of entry into matters of formal organization within fugal genres. And the obvious corpus for investigation is the forty-eight fugues in J. S. Bach's *Well-tempered Clavier* (*WTC*), long seen (along with his *Art of Fugue*) as the touchstone of fugal technique in the High Baroque. The present study of cadence in fugue arises from a

^{*} This is the second contribution to the Oslo Lectures, a series of lectures about music theory pedagogy by outstanding scholars in the field, to be published by *Music Theory and Analysis*. These lectures are part of an ongoing project in music theory pedagogy, financed by the Centre for Excellence in Performance Education (CEMPE) at the Norwegian Academy of Music in Oslo (2018–21).

Earlier informal versions of this study were developed as a workshop at the conference "Form Forum II: Focus on Cadence," Schulich School of Music, McGill University, January, 2015, at several workshops on cadence and closure in tonal music that I was invited to present at the Royal Conservatory of The Hague, May, 2018. A more formal version was presented as a guest lecture at Washington University, St. Louis, May, 2019. I am grateful for the invitations I received from these institutions and thank the members of the workshops and the audience of the lectures for their valuable feedback in helping to shape the final, more extended, version presented here. Support for this research was generously provided by the Social Sciences and Humanities Research Council of Canada and the Canada Council for the Arts.

Christopher Brody, "Teaching Bach's Binary Forms," Bach 49/2 (2018), 281–310, https://doi.org/10.22513/bach.49.2.0 281; L. Poundie Burstein, Journey through Galant Expositions (New York: Oxford University Press, forthcoming); Yoel Greenberg, "Of Beginnings and Ends: A Corpus-Based Inquiry into the Rise of the Recapitulation," Journal of Music Theory 61/2 (2017), 171–200, https://doi.org/10.1215/00222909-4149546.

² See, e.g., John S. Reef, "Subjects and Phrase Boundaries in Two Keyboard Fugues by J. S. Bach," *Music Theory Spectrum* 41/1 (2019), 48–73, https://doi.org/10.1093/mts/mty029; Nicholas Stoia, "Triple Counterpoint and Six-Four Chords in Bach's Sinfonia in F Minor," *Music Analysis* 34/3 (2015), 305–34, https://doi.org/10.1111/musa.12041.

broader inquiry into thematic closure in tonal music of the eighteenth and nineteenth centuries,³ which itself builds upon my 2004 article on cadence in the Classical style.⁴

Within traditional fugal theory, cadence is relegated to a minor role, with only cursory attention given to modes of closure within a fugue. To be sure, we find some general comments on how cadences can confirm various tonal regions and how they may be used in connection with fugal techniques such as subject, answer, episode, and stretto. But for the most part, theorists of fugue are principally concerned with the potential for cadence to inhibit rhythmic continuity and melodic flow:

The very best is when the fugal phrase is so arranged that one rather avoids true cadences, and knows how to set its limits so that no actual cadence would result: inasmuch as the resting places are not at all appropriate in fugues and counterpoints; but are such strangers that they seldom occur earlier nor can appear in their own form until the whole chase has run its course.⁵

The purpose [of avoided cadences] is to keep the music moving for a long time; [they are] of the greatest necessity in a fugue for the uninterrupted continuation of a harmonic fabric.⁶

The maintenance of continuity is an important element in any fugal composition. Frequent cadences are to be avoided; indeed, it may almost be laid down as a rule that perfect cadences should only occur at the close of the entire composition, or at the end of the most important modulations; and in the latter case they generally serve as the basis from which a new attack of the subject springs.⁷

The perfect cadence, however, should only be used when it is clearly motivated by the melodic sense of the parts; ... only the logic and good sense of the composer will serve as guides. ... However, in the exposition, perfect cadences must be avoided. There all the entries should form an uninterrupted chain, and the least break in the melodic continuity and writing of the parts must be avoided.⁸

³ William E. Caplin, Cadence: A Study of Closure in Tonal Music (New York: Oxford University Press, forthcoming). The first fruits of this research appear in Caplin, "Beyond the Classical Cadence: Thematic Closure in Early Romantic Music," Music Theory Spectrum 40/1 (2018), 1–26, https://doi.org/10.1093/mts/mty002.

⁴ William E. Caplin, "The Classical Cadence: Conceptions and Misconceptions," *Journal of the American Musicological Society* 57/1 (2004), 51–117, https://doi.org/10.1525/jams.2004.57.1.51.

⁵ Johann Mattheson, Der vollkommene Capellmeister (1739), trans. Ernest Harriss (Ann Arbor, MI: UMI Research Press, 1981), 695.

⁶ Friedrich Wilhelm Marpurg, Abhandlung von der Fuge, vol. 1 (Berlin: A. Haude & J. C. Spener, 1753), 112; trans. and cited by Peter Schubert and Christoph Neidhöfer, Baroque Counterpoint (Upper Saddle River, NJ: Pearson Prentice Hall, 2006), 219.

⁷ James Higgs, Fugue (London: Novello, 1878), 79.

⁸ André Gedalge, Treatise on the Fugue (1901), trans. and ed. Ferdinand Davis (Norman: University of Oklahoma Press, 1965), 253.

Thus many considerations of the role of cadences in fugue are directed to how they can be used in a way that minimizes as much as possible the cessation of musical motion. This attitude, however, betrays a fundamental misconception about cadence, namely that a cadential arrival, in principle, creates a "stop" of some kind. But cadence is primarily about creating formal closure, and the degree to which a given cadence effects an actual break in continuity depends on its particular rhythmic profile and texture.⁹ As this one issue of cadential theory shows, any study of cadence in fugue gains its validity and significance from the general concept of cadence employed by its author. Since I am unaware of any comprehensive investigation of this topic that uses anything like the extensive methodologies developed in my own theories of cadence and form, I hope to be making here an original contribution, one that may stimulate further investigations beyond the scope of Bach's *Well-tempered Clavier*.

GENERAL CONCEPTS AND TERMINOLOGY

To begin, let me quickly dispatch one of those persistent conundrums of music theory: is fugue a form, a genre, a set of compositional procedures, or all three? That fugue is the latter two cannot be denied: given the numerous works entitled "Fugue," we can speak with certainty of it as a distinct genre. Moreover, some compositional techniques are so regularly associated with fugue that we can readily identify fugal procedures no matter in what genre they appear. (Thus, we often refer to some sonata-form developments as containing fugal writing.) As for fugue as a form—the crux of the controversy—the answer is also clear-cut: if we mean by "fugue" anything comparable to, say, sonata, rondo, or concerto form, then no one has yet demonstrated that "fugal form" has a conventional set of formal functions that could constitute a specific formal type. To be sure, some fugues are manifestly bipartite in design, others tripartite, and indeed, cadence can help define the parts making up these forms. But many fugues are through-composed, and the ways in which cadence is deployed in those works resist any generalizations that would yield a definition of fugal form.

Given the widespread variance in traditional fugal terminology, let me define some concepts relating to fugue that I use throughout this study (see Table 1, which, along with Table 2, comprises a glossary of terms for fugue and cadence). A fugue begins with an opening section, an *exposition*, in which the fugal *subject*, the principal melodic idea of the work, is sounded successively in all voices of the fugue. An *answer* version of the subject, which emphasizes dominant-oriented scale degrees, harmonies, or tonal regions,

⁹ On the issue of "stop" vs. "end," see Caplin, "The Classical Cadence," 97–103.

Table 1: Fugal terminology

answer (A)	a version of the subject that is, more or less, transposed a fifth higher (or fourth lower).
counter-exposition	a later occurring section that consists of alternating subject and answer versions, in the manner of an exposition.
countersubject (CS)	a "counterpoint to the subject"; a recurring melodic idea that appears simultaneously with the subject (or answer).
episode	a passage of music that does not contain the complete subject (though motives of the subject may be included within an episode); episodes are usually organized by model-sequence technique.
episode fugue	a fugue that, following the exposition, consists largely of episodes alternating with subject entries.
exposition	the opening section of a fugue, consisting of alternating subject and answer versions. The exposition ends at that point where the final voice completes the subject (or answer). An internal episode may occur between some of the subject entries.
internal episode	within an exposition, a short episode placed between a set of subject and answer entries.
part	a group of sections, which yields an overall form for the fugue (e.g., bipartite, tripartite).
passage	a lower-level formal unit consisting of a single subject entry, an episode, or a stretto.
real answer	a type of answer in which every note of the subject is transposed a fifth higher.
section	a relatively higher-level formal unit consisting of two or more passages.
stretto	following the exposition, a passage bringing overlapping entries of the subject.

stretto fugue	a fugue that, following the exposition, largely consists of stretto passages.
subject (S)	the principal melodic idea of the fugue.
subject entry	following the exposition, a passage of music consisting of the complete subject (or answer) in one voice; the other voices may bring one or more countersubjects or free counterpoint.
subject transformation	a systematic alteration of the subject by means of transposition, inversion, augmentation, diminution, etc.
tonal answer	a type of answer in which one or more notes of the subject is transposed by an interval other than a fifth higher.

alternates in the exposition with the original subject version.¹⁰ An exposition often employs a *countersubject*, literally a "counterpoint to the subject," consisting of melodicmotivic material that contrasts with the subject but also rhythmically complements it. Like many prior theorists, I locate the end of the exposition as that moment when the final voice concludes its subject or answer version.¹¹ Following the exposition's end, the rest of the fugue brings a succession of *passages*, of which we can identify three different types: (1) a single *subject entry*, the reappearance of the complete subject (or answer) in one voice, perhaps accompanied by a countersubject; (2) an *episode*, typically featuring modelsequence technique and containing contrasting material or individual motives drawn from the subject; and (3) a *stretto*, which constitutes overlapping subject entries in two or more voices.¹² At a higher level of formal organization, we can speak of a *section* as a group of passages (thus, according to this definition, the exposition is a section). One type of

¹⁰ When the distinction is helpful, I will differentiate "subject" from "answer"; otherwise, I will use "subject" as the general term for the principal melodic idea of the fugue.

¹¹ Alternatively, some theorists see the exposition as including an episodic extension closed by a cadence; see n. 29 below for one such case.

¹² All of Bach's fugues in the WTC bring one or more subject entries following the exposition. Moreover, a group of fugues emphasizes episodic passages that alternate with such entries. Another group gives prominence to passages of stretto. This distinction between *episode fugues* and *stretto fugues*, as they can be termed, may well have been recognized by Bach himself in light of how he presents the first two fugues of the WTC. The C major fugue consists largely of stretto passages with only two isolated subject entries and not a single episode; the C minor fugue brings exclusively a series of episodes that regularly alternate with subject entries, with no stretto technique at all. Between these extremes, the remaining fugues of the WTC present a wide array of options, sometimes residing clearly in one camp or another, but oftentimes including both episodes and strettos, thus lying somewhere in the middle of the spectrum.

section that may occur later in the fugue is a *counter-exposition* consisting of alternating subject and answer versions in the manner of an exposition. Finally, we can identify the highest-level organization of a fugue as consisting of two or more *parts*.¹³

Before dealing with cadence in fugue, let me briefly outline some aspects of the tonal cadence that are central to my approach (Table 2). As readers familiar with my writings already know, I define cadence in a manner that is considerably more restricted than what one finds in standard books on harmony and form. Most important, I limit the harmonic content of the authentic cadence to include dominant and tonic harmonies that reside exclusively in *root position*. And I further identify a *cadential progression* as potentially containing both an initial tonic (typically I6) and some form of pre-dominant (II6 or IV) that precedes the final V–I motion. A complete authentic cadential progression thus consists of four harmonies, as shown in the schematic patterns of Example 1a. Incomplete versions of this progression may omit the initial tonic or pre-dominant (or both). Three particular forms of authentic cadences especially common in the High Baroque were defined by partimento theorists of the time as the simple cadence (cadenza simplice), the compound cadence (cadenza composte), and the double cadence (cadenza doppia).14 Complete and incomplete *half*-cadential progressions are effectively the same as authentic ones, except that they omit the final tonic and include a consonant dominant triad (i.e., one that does not contain the dissonant seventh). Example 1b shows some representative cadence types extracted from the WTC—two perfect authentic cadences (PACs); one case of an *imperfect* authentic cadence (IAC), whose melody closes on the third scale degree; and a couple of half cadences (HCs). It is important to stress that a cadence is just as strong syntactically if it is supported by an *incomplete* progression as by a *complete* one.¹⁵

In addition to creating genuine cadences, a passage of presumed cadential function may fail to achieve its full effect of closure. In my general work on cadence, I have defined three such cadential *deviations*, including the *deceptive*, *evaded*, and *abandoned* cadence.¹⁶

¹³ The distinction between "section" and "part" is relatively arbitrary and not of great theoretical import. I normally refer to a fugue's overall formal plan as made up of *parts*, because it seems more idiomatic to speak, say, of a "two-part" (or "bipartite") fugue rather than a "two-section" one.

¹⁴ Giorgio Sanguinetti, The Art of Partimento: History, Theory, and Practice (New York: Oxford University Press, 2012), 105–6.

¹⁵ To be sure, an incomplete cadential progression may contribute to a given cadence sounding relatively weak from a rhetorical point of view, but such a cadence's syntactic function—its ability to confirm a key and to bring formal closure—is fully on par with a comparable cadence featuring a complete cadential progression; see Caplin, "The Classical Cadence," 106–12, for more on the distinction between the syntactical and rhetorical strength of cadences.

¹⁶ For a fuller discussion of these cadential deviations, see William E. Caplin, *Analyzing Classical Form: An Approach for the Classroom* (New York: Oxford University Press, 2013), chap. 5.

Table 2: Cadential terminology

Cadence, in general	
abandoned cadence (or cadential progression)	the failure to realize an implied authentic cadence by eliminating the cadential dominant in root position or by inverting that harmony before its resolution.
authentic cadential progression (complete)	a progression of harmonies consisting of an initial tonic (I ⁶ , I), a pre-dominant (II ⁶ , IV ⁶), a dominant in root position (V ⁷ , $V[_{4}^{67}]$), and a final tonic in root position (I).
cadence of limited scope	a cadence whose scope of closure is limited to a relatively small segment of the music (the cadence symbol is placed in parentheses).
cadential progression of harmonies	a harmonic progression required to support a genuine tonal cadence.
deceptive cadence	the failure to realize an implied authentic cadence by replacing the final tonic with another harmony (usually VI, but possibly I ⁶), which nonetheless represents the end of the prevailing cadential progression.
evaded cadence	the failure of an implied authentic cadence to reach its goal harmony; the event appearing in place of the final tonic groups with the subsequent unit and (usually) represents the beginning of a repetition of a prior group.
expanded cadential progression	An expansion of the cadential progression to the extent of supporting a complete phrase (of at least four measures) or group of phrases.
half cadence (HC)	a cadence supported by a half cadential progression.
half cadential progression (complete)	a progression of harmonies consisting of an initial tonic (I ⁶ , I), a pre-dominant (II ⁶ , Itl ⁶), a dominant triad, in root position (V $V[_4^{67}]$).
imperfect authentic cadence (IAC)	a cadence supported by an authentic cadential progression whose melody ends on $\hat{3}$.

music theory & analysis \mid volume 7, # 1, April 2020

incomplete cadential progression	a cadential progression that omits either the initial tonic or pre-dominant (or both). An incomplete cadential progression creates a cadence that is just as strong syntactically as one using a complete cadential progression.
inverted deceptive cadence	a deceptive cadence in which an upper voice moves from $\hat{7}$ to $\hat{6}$ while the harmony moves from V ⁷ to VI ⁶ .
lowered leading-tone abandonment	a form of abandoned cadence whereby an expected leading tone of the cadential dominant is chromatically lowered by a half step; this technique normally redirects the implied cadence toward a tonicization of subdominant harmony.
perfect authentic cadence (PAC)	a cadence supported by an authentic cadential progression whose melody ends on $\hat{1}$.
pre-cadential dominant expansion	A passage of marked expansion of a noncadential dominant harmony closely preceding the onset of a cadential progression.
prolongational closure	a noncadential mode of formal closure, supported by a prolongational progression, such as V_5^6 –I or V_2^4 –I ⁶ ; in other theories, often termed "contrapuntal cadence" or "imperfect cadence."

Cadence, in fugue

final cadence	the very last home-key authentic cadence in the fugue (usually a PAC).
independent cadence	a cadence of any type that is not associated with the conclusion of the subject (or answer); such cadences usually end extended passages or sections of the fugue.
interior cadence	a cadence, of any type (HC, IAC, PAC), that occurs prior to the final cadence.
midway cadence	an interior cadence occurring roughly half of the way through the fugue.

music theory & analysis \mid volume 7, # 1, April 2020

subject-ending (S-ending) cadence

an authentic cadence that occurs with the final pitches of the subject (or answer); such cadences are usually limited in scope to the subject itself, but may occasionally seem to conclude an extended passage or section of the fugue.

Example 1a: Cadential progressions



In the case of the deceptive cadence, the final harmony of the cadential progression is replaced by a non-tonic harmony (typically VI) or by an inverted tonic (I⁶). With an evaded cadence, the root-position dominant of an authentic cadential progression is fully locked into place, but the event that occurs immediately following the dominant does not group

IV⁶ V₁

MUSIC THEORY & ANALYSIS | VOLUME 7, # I, APRIL 2020

 1^{16}

П§

 V_1

I

V₁

Delivered by Ingenta IP: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press Example 1b: Fugue No. 21 in B¹, WTC 2, mm. 92–93; Fugue No. 20 in A minor, WTC 1, m. 83; Fugue No. 23 in B, WTC 1, mm. 33–34; Fugue in D[#] minor WTC 1, m. 61; Fugue in G minor, WTC 1, mm. 27–28



with the ongoing cadential function, but rather initiates either a new idea or repeats the prior one in the sense of Janet Schmalfeldt's "one more time" technique.¹⁷ An abandoned cadence (or, more typically, an abandoned cadential progression) may be said to occur when something goes amiss with the cadential dominant itself, such as when that harmony is inverted in the course of the ongoing cadential function or when the dominant simply fails to arise altogether.¹⁸

¹⁷ Janet Schmalfeldt, "Cadential Processes: The Evaded Cadence and the 'One More Time' Technique," Journal of Musicological Research 12/1-2 (1992), 1-52, https://doi.org/10.1080/01411899208574658.

¹⁸ At times we can determine a likely moment of arrival where a promised cadence would seem to conclude but is abandoned instead; more often, however, such a moment of presumed arrival is not entirely evident, in which case we would speak more generally of abandoning the cadential progression per se; see Caplin, *Analyzing Classical Form*, 143.



Example 2a: Prolongational progressions, schematic

Example 2b: Fugue No. 6 in D minor, WTC 2, mm. 13-14



Finally, I fully acknowledge that various phrase units of a movement may achieve a degree of formal closure that is not truly cadential according to the harmonic criteria just set forth. In such cases, the dominant (and sometimes the tonic) is usually inverted, thus giving rise to what I call *prolongational* harmonic progressions, as shown schematically in Example 2a and with an actual case of *prolongational closure* given in Example 2b.¹⁹ Many theorists label the closure exhibited by such progressions "contrapuntal cadences" or "imperfect cadences."²⁰ But since I distinguish categorically between prolongational and cadential harmonic progressions, I advocate speaking of closure effected by the former as prolongational so as to keep my concept of cadence more strictly defined.²¹

¹⁹ I introduce the idea of prolongational closure in my "Beyond the Classical Cadence," 14–16.

²⁰ See, e.g., Edward Aldwell and Carl Schachter, *Harmony and Voice Leading*, 2nd ed. (San Diego: Harcourt Brace Jovanovich, 1989), 118 ("contrapuntal cadence"); Douglass M. Green, *Form in Tonal Music*, 2nd ed. (New York: Holt, Rinehart & Winston, 1979), 13 ("imperfect cadence").

²¹ One major difficulty with interpreting the variety of ways in which theorists speak of cadential articulations in fugue is the lack of uniformity in general conceptions of cadence. Thus, when Percy Goetschius flatly declares that "the Exposition ends, as a rule, with a perfect cadence" (*Applied Counterpoint* [New York: G. Schirmer, 1902], 228), it is important to understand that in this type of cadence he is including any progression from dominant to tonic, no matter what the position of the harmonies.

Here is not the place to give a fuller account of my ideas on cadence and the many reasons I limit its supporting harmonies to those progressions I have defined as cadential in nature; for more on this issue, see my "Teaching Classical

TONAL FUNCTIONS OF CADENCE IN FUGUE

As in all tonal forms and genres, cadences in fugues are used to confirm the establishment of a key: always, of course, the home key, but also other tonal regions that may be explored in the work. Confirmation of the home key normally takes place toward the end of the fugue, though now and then a home-key cadence may occur earlier.²²

As for the tonal regions confirmed by cadences, one interesting anomaly is worthy of mention. In most instrumental genres in the eighteenth century, the first tonal region to be explored (after the home key) and confirmed cadentially is the subordinate key, either the dominant region (for a major-mode home key) or the relative major (for a minor-mode one); the minor dominant is also a subordinate-key option in minor-mode movements, much more so in the Baroque than in later galant and Classical styles. In Bach's *WTC* fugues, exceptionally, the subordinate key is by no means the first region to which the music modulates. Indeed, a handful of fugues do not confirm the subordinate key at all,²³ and several fugues only bring a subordinate-key cadence later on, after one or more other keys (typically minor-mode regions such as VI or III) have already been confirmed.²⁴ All of these cases but one (*WTC* II/16, in G minor) are major-mode fugues, and perhaps one reason the subordinate key is not so emphasized is that the dominant region may well receive a degree of expression in the course of the exposition via the alternation of subject and answer versions.

FORMAL FUNCTIONS OF CADENCE IN FUGUE

How does Bach use cadences to help articulate form in connection with the variety of compositional techniques we find in a fugue? (See again Table 2.) Obviously, the fugue as a whole will conclude with a *final cadence* in the home key, almost always a PAC.²⁵ And in a small number of cases, this may be the only cadence in the entire fugue.²⁶ All cadences appearing earlier, which I will term *interior cadences*, may vary in a number of ways: by cadence type, by tonal region, or by the use of a deviation technique. In slightly less than

Form: Strict Categories versus Flexible Analyses," *Dutch Journal of Music Theory* 18/3 (2013), 119–35. My forthcoming book, *Cadence*, will develop this topic in greater detail. For now, I propose that my restricted notion of cadence permits a more nuanced understanding of cadential practice than the traditional view, which sees most all modes of formal closure as cadential in nature. I will return to this issue at the close of this article.

²² WTC I/3, I/5, I/16, I/20, II/6, II/18.

²³ WTC I/1, I/11, II/16, II/17.

²⁴ WTC I/15, I/17, II/9.

²⁵ Only two of the forty-eight fugues (I/23 and II/15) end with an IAC.

²⁶ WTC I/9, I/10, II/13, II/15, II/19, II/20.

half of the fugues, a cadence appears around the middle point of the work. In some cases, this *midway cadence* is a decisive marker, helping to divide the piece into two distinct parts. At other times, the midway cadence does not seem to have any particular formal role, yet that Bach so often introduces such a cadence halfway through suggests that he may have attached some special significance to this moment that is otherwise not so evident.²⁷

With most Baroque forms (such as the binary, minuet, or ritornello forms), the use of specific cadences to close distinct formal functions is highly conventionalized and thus somewhat predictable. But since a fugal work does not necessarily engage any particular formal type, we initially confront a given fugue without any preconceptions as to the appearance or function of cadences, except, of course, for a final one at the close of the piece. Most fugues, however, do contain one or more interior cadences, and we must then try to ascertain just what formal function they are serving. At times, a particular interior cadence functions to end a section, or even a higher-level part. Furthermore, now and then a cadence may seem to end just a single passage, such as an especially complex episode or stretto. The number of sections or parts thus defined by cadential closure can sometimes suggest an overall binary or ternary form, but oftentimes no conventional plan emerges from the succession of formal units articulated by cadences.

In the course of a fugue, we sometimes sense that a given cadence participates in the broader formal expression more by what comes after the cadence than by what came before it, especially when followed by a new passage that has a strongly initiating quality.²⁸ Thus in the C minor fugue, book II (Example 3), a cadence confirming the minor-dominant key appears at m. 14, exactly midway through the fugue. Immediately thereafter the texture is suddenly reduced with the introduction of two completely new transformations of the subject (first by augmentation, then by inversion) and the use of stretto. Indeed, the

²⁷ The idea of a midway cadence has not gone unnoticed in the secondary literature on fugue and the WTC. Thomas Benjamin notes, "Many shorter fugues have one clear internal cadence, placed roughly midway through the fugue, dividing it into two balanced sections" (*The Craft of Tonal Counterpoint*, 2nd ed. [New York: Routledge, 2003], 211). In connection with the F minor fugue, book II, David Ledbetter identifies a "section-ending cadence at the half-way point (b. 40), the only one in the piece other than at the end" (*Bach's "Well-tempered Clavier": The 48 Preludes and Fugues* [New Haven, CT: Yale University Press, 2002], 290). Joseph Kerman speaks of a "central cadence," one that "rhymes" with the final cadence and divides the piece into two main parts (*The Art of Fugue: Bach Fugues for Keyboard*, 1715–50 [Oakland: University of California Press, 2015, https://doi.org/10.1525/luminos.1], 105, 121). But his central cadence does not necessarily appear at or even near the midway point, as his analysis of the Bb major fugue, book II, makes clear: "But most sly and artful of all is the phrase leading to the very strong cadence in the middle of this fugue—actually, not halfway through, more like a third (*bars 29–32*)" (119).

^{28 &}quot;Typically in fugues—though not always, of course—a strong structural cadence... prepares a subject entry" (Kerman, The Art of Fugue, 89); "Sometimes a subject that begins on the tonic can be introduced by a perfect cadence that ends an episode" (Gedalge, Treatise on the Fugue, 250); "Usually we find cadences preparing new thematic statements and/or new contrapuntal devices, such as stretto" (Schubert and Neidhöfer, Baroque Counterpoint, 222; emphases added to all three quotations).



Example 3: Fugue No. 2 in C minor, WTC 2, mm. 12–16

Example 4: Fugue No. 14 in F# minor, WTC 2, mm. 34–38



MUSIC THEORY & ANALYSIS | VOLUME 7, # I, APRIL 2020

IP: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press midway cadence here clearly divides the fugue into two distinct parts. A second case of a cadence that seems to gain prominence as a structural marker as much by what follows as by what precedes it arises midway through the F[#] minor fugue, book II (Example 4). Here it is a question not of employing new fugal techniques (as in the previous example), but of creating greater rhythmic activity following the cadence, as projected by the running sixteenth notes, which Bach actually introduces just prior to the cadence but then allows to take over after this moment. With a half cadence, in particular, we often feel that the cadence is more forward-looking than conclusive, as if "announcing" that a new section is to begin. Toward the end of the G minor fugue, book I (Example 5), a prominent half cadence at m. 28 alerts us to a stretto passage that initiates the final section of the piece.



Example 5: Fugue No. 16 in G minor, WTC 1, mm. 26–30

Up to now I have focused on the role of cadence in closing off a formal unit and, as well, in calling forth the onset of a new one. One unit, however, is rarely closed cadentially, namely, the exposition that begins the fugue.²⁹ If that section is defined as being concluded when

²⁹ In n. 21 we encountered one theorist, Goetschius, who claims that expositions in principle end with a cadence. The reason his view so flatly contradicts my own is largely attributable to two factors: he has both a different concept of cadence and a different notion of what constitutes "ending an exposition" from mine. When we examine the cases that Goetschius provides of his "rule" (and helpfully, he comments on eleven expositions from the WTC), it emerges that some of his examples, such as the A minor fugue, book I, involve an exposition whose final subject (or answer)



Example 6: Fugue No. 7 in Eb, WTC 1, mm. 6–8

the final voice has finished stating the subject (or answer), then we can well understand why this moment is not suitable for cadential closure: the subject is, in principle, an initiating idea, and repeated initiations—like the presentation phrase of a classical sentence theme type—inhibits closure rather than promotes it.³⁰ For this reason, the end of the exposition is typically followed by an episode or (less often so early in the fugue) by a stretto. This passage introduces sufficiently contrasting content so as to motivate a potential cadence—an *independent cadence*, as I will call it—that stands apart from the subject itself.³¹ Although an independent cadence, by definition, does not close a complete subject, individual motives from the subject may appear in the context of an independent cadential idea.

With only three exceptions, which I will discuss later on, the exposition of a fugue in the WTC concludes with the last statement of the subject (or answer) in a harmonic context that is non-cadential. To say that this section does not end cadentially does not mean, however, that it projects no sense of closure whatsoever. At times we can perceive that a goal has been achieved, thus allowing something new to begin. But instead of a genuine cadence, the moment is marked by prolongational closure, as seen in Example 6. Here the exposition ends on the third beat of m. 7, with the subject in the bass voice. The harmonic progression thus created, V_{-}^{i} , is prolongational, not cadential.

concludes with prolongational closure (a I⁶ harmony at m. 14), not a genuine cadence, as I understand it. In other cases, he sees the exposition as closing *after* the final subject sounds, which runs counter to my definition (as well as that of most other theorists) of where an exposition ends.

³⁰ Caplin, *Analyzing Classical Form*, 47–48. Indeed, the Classical presentation phrase likely developed historically out of the fugally inspired practice of opening a Baroque instrumental form with a tonic version of its initiating idea or phrase, followed immediately by a dominant version.

³¹ It should be noted, however, that an episode following the exposition may not necessarily lead to a cadence so early in the fugue.

SUBJECT-ENDING CADENCES

Seeing as expositions rarely close with a cadence, the idea of the subject as having an intrinsically initiating function is further reinforced. Yet the melody of many subjects include a final gesture that may well be harmonized with a cadential progression, especially when the melody ends with descending stepwise motion to 3° or to 1.3^2 The subjects of the first two fugues in the *Well-tempered Clavier* (shown in Example 7 and Example 8a) are both amenable to cadential closure, and in the case of the latter, Bach shows us twice just how it can be done.

The first time (Example 8b) occurs in mm. 15–17, where the alto presents the answer, a modulating version of the subject, which deflects the music into G minor, as confirmed for the first time in the fugue by a PAC. Shortly thereafter (Example 8c) the subject version appears in the upper voice of m. 20 and leads to a home-key IAC on the downbeat of m. 22. Such moments, which realize the cadential implications of the subject, can now be termed *subject-ending* (or *S-ending*) cadences.³³ Within the confines of a subject entry, such a cadence functions as one of *limited scope*, because we sense that the cadence is closing the subject itself, not necessarily some larger unit of form.³⁴ Indeed, in both cases from the C minor fugue, it is not clear just what broader formal functions these cadences serve, for in the context of the fugue as a whole, neither ends its two main parts, as defined more by their distribution of melodic-motivic materials than by cadence

³² Most theorists on fugue recognize that the subject brings melodic closure on these stable scale degrees. Goetschius even speaks of the subject ending with a "distinctly *cadential* effect" (*Applied Counterpoint*, 212); recall, however, that his concept of cadence embraces any dominant-to-tonic harmonic progression, meaning that the close of almost any subject could be a cadence (see again nn. 21 and 29).

³³ Some writers on fugue recognize the general notion of an S-ending cadence, though they do not develop the idea to the extent that I do in this study. Thus Marpurg, in his general guidelines for the broader form of a fugue, notes that one can make a "cadence immediately after the completion of the first group of themes [the exposition], in the case where the melody of the subject is inclined that way" (Abhandlung von der Fuge, 121; trans. and cited by Schubert and Neidhöfer, Baroque Counterpoint, 351). But because Marpurg's concept of cadence, like that of many of his contemporaries, embraces inverted positions of the dominant-to-tonic progression, his identification of an exposition ending with a "cadence" is vastly broader than my notion of an S-ending cadence. Gedalge discusses how "the perfect cadence is sometimes used to begin an episode after the end of the entry of the subject" (Treatise on the Fugue, 252); although he does not specifically define the harmonic content of his "perfect cadence," all of his examples of this cadence type feature the progression V-I, with both harmonies in root position, and so the case he identifies conforms to my idea of an S-ending cadence. Schubert and Neidhöfer distinguish between "formal" and "subordinate" cadences, the latter defined as occurring "within complete themes or sequences, that is, within some ongoing process" (Baroque Counterpoint, 217); in this context, they even speak of individual ideas of the subject as having a "cadential potential" (221). But since they are actually referring to individual motives from the subject—not necessarily the end of the complete subject-their idea of subordinate cadence is considerably broader in scope than my S-ending cadence.

³⁴ On the idea of cadences of limited scope, see Caplin, "The Classical Cadence," 86–89. I indicate cadences of limited scope by enclosing the cadence symbol in parentheses (i.e., not in a box).

Example 7: Fugue No. 1 in C, WTC 1, mm. 1–2



Example 8a: Fugue No. 2 in C minor, WTC 1, mm. 1-3



Example 8b: Ibid., mm. 13–17





MUSIC THEORY & ANALYSIS | VOLUME 7, # I, APRIL 2020

Delivered by Ingenta IP: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press



Example 8c: Ibid., mm. 20–22

per se. As we see in Figure 1, the second part introduces a succession of subject entries and episodes that largely corresponds with what happens in the first part, except that at the start of part 2 the counter-exposition omits an initial subject entry.³⁵ Within this *rotational* binary plan,³⁶ the two subject-ending cadences do not close either part. In fact, part 1 receives only prolongational closure (VII⁶–I⁶) at m. 15 (Example 8b). Our two Sending cadences thus seem to exist primarily to show how the potential for closing a subject cadentially can indeed be realized, and in two different ways—first as a PAC in the subordinate key, and then as an IAC in the home key. Actualizing compositional implications intrinsic to the subject is a principal aesthetic goal of fugal technique, one that Bach achieves in many different ways. Here he does so by means of two S-ending cadences, ones that have only limited cadential scope in relation to the overall form of the fugue.

Not all S-ending cadences, however, are cadentially limited to the subject alone. Some, such as the midway cadence of the B major fugue, book I, seem to close broader sections of a fugue. As shown in Example 9a, the subject closes with the melodic descent 4-3-2-1, the penultimate note even bringing with it a tell-tale "cadential" trill. These features

³⁵ The second part does not start with an unaccompanied subject as at the opening, because once a fugue is under way, Bach never (in the WTC) so drastically reduces the texture to a single voice.

³⁶ For the concept of formal rotation, see James Hepokoski and Warren Darcy, *Elements of Sonata Theory*: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata (New York: Oxford University Press, 2006, https://doi.org/10.1093/acpro f:005/9780195146400.001.0001), esp. Appendix 2. Schubert and Neidhöfer (*Baroque Counterpoint*, 363–64) compare a variety of formal analyses of this fugue, most of which propose alternative readings to the binary view given in Figure 1.



Figure 1: Binary form of Fugue No. 2 in C minor, WTC 1; the symbol ≈ means "corresponds to"

strongly imply that an S-ending cadence will occur at some point in the fugue. Following the close of the exposition (see Example 9b), an episode leads to a subject entry in the tenor toward the end of m. 11, which, with the appropriate bass-line support, promises to close cadentially as an S-ending IAC in the middle of m. 13.

The cadence is denied, however, when the leading tone in the alto fails to move to $\hat{1}$ and functions instead as a suspension resolving downward to $\hat{6}$. The resulting VI⁶ replaces the final tonic, thus creating a type of deceptive cadence.³⁷ The music then pushes forward (Example 9c), modulating to the dominant region as confirmed by the S-ending midway cadence at m. 18—one that not only closes the first half of the fugue, but also helps to announce the start of a new section, which features an inversion of the subject. This section, too, receives cadential closure with an S-ending cadence in the supertonic region at m. 26 (Example 9d).

Before leaving this fugue, it is interesting to observe a number of details in the S-ending cadences of the prior two examples. Note that in Example 9c (mm. 17–18) Bach alters the end of the subject (in the alto) by adding an embellishment that, instead of leading as expected to $\hat{1}$, concludes on $\hat{3}$, in order to fill out the tonic harmony of the cadence. And in Example 9d (mm. 25–26) the subject in the tenor also ends with a new embellishment on

³⁷ I will define and discuss the resulting *inverted* deceptive cadence in a later section on cadential deviations.



Example 9a: Fugue No. 23 in B, WTC 1, mm. 1-3

Example 9b: Ibid., mm. 11–13



3—this time, however, not because of any change to the implied final note of the subject, but because the subject's pitches largely project the key of E major rather than C# minor, the key confirmed by the cadence.³⁸ Thus, in both cases the alterations to the subject, along with its being somewhat hidden in an inner voice, perhaps allow us to hear the semblance of an *independent* cadence, the type we would normally expect as form-defining, especially for a midway cadence.³⁹

³⁸ The chromatic alteration of B# in the subject (tenor, m. 24, beat 4) is the one touch that betrays the key that will be confirmed by the S-ending cadence at m. 26.

³⁹ Would it be overly speculative to suggest that a reason this fugue is one of only two in the WTC whose final cadence is an IAC (as mentioned in n. 25) is that this highlighting of 3 at the very end of the fugue references the prior alterations of the two subjects just discussed to conclude on the same scale degree?

Example 9c: Ibid., mm. 15–18





Example 9d: Ibid., mm. 24–26



Even if a subject is amenable to cadential closure, an S-ending cadence will not necessarily arise. The very first fugue in C major (see again Example 7) is one such case, for at no point does Bach write a cadential end for the subject. In fact, quite a number of fugues whose subjects are potentially suitable for such closure are simply not realized, most coming from book II of the WTC.⁴⁰ Of course, some subjects are simply not able to be

⁴⁰ Indeed, book II brings considerably fewer S-ending cadences than book I. I posit a reason for this difference in n. 43 below.



Example 10a: Fugue No. 9 in E, WTC 1, mm. 1-3

Example 10b: Fugue No. 15 in G, WTC 2, mm. 1-8



closed cadentially, either because they do not finish on $\hat{1}$ or $\hat{3}$, or because they feature on ongoing rhythmic element that renders their end points somewhat obscure (see Examples 10a and 10b).

EXPOSITIONS CONCLUDING WITH S-ENDING CADENCES

Having examined the notion of the subject-ending cadence, we can return to an earlier topic left unfinished, namely, those three exceptional fugues whose expositions seem to conclude cadentially. One case appears in Example 11, the four-voice D major fugue, book I. Here, the subject and answer versions enter consistently upward, from the bass to the soprano. The subject closes with a descending melodic line $(\hat{6}-\hat{5}-\hat{4}-\hat{3})$ that is entirely suitable for IAC closure. Of course, the first entry in the bass has no cadential implications because of the implied inversions of the final harmonies ($V^{\frac{1}{2}}$ to I^{6}); but each successive entry is supported by a cadential bass line to yield S-ending IACs in mm. 3, 5, and 6. Though it might seem that the exposition thus "ends" with a cadence, this S-ending IAC at m. 6 is clearly limited in scope to the answer itself and does not close the entire exposition, because the two previous entries (in the tenor and alto respectively) also conclude with the same S-ending cadences. Thus, what seems to be an exception to the rule is illusory, and we can say that the exposition as a whole remains formally open-ended.

Example 11: Fugue No. 5 in D, WTC 1, mm. 1-6



A second exceptional case appears in the F# major fugue, book I (Example 12). Again, the subject is entirely amenable to cadential closure. Only one detail is potentially confusing: determining the final pitch of the subject. Is it 3, which, following a leap from 5, appears on the downbeat of m. 3? Or 1, which follows 3 via another leap and elides with the onset of the answer? The overall harmonic context, not only at the beginning but throughout the fugue, suggests that the leap from 5 to 3, supported by a dominant-to-tonic progression, represents the principal melodic closure, with the subsequent 1 functioning as a kind of "overhang" (*Überhang*), as the eighteenth-century theorist Heinrich Christoph Koch would say.⁴¹ Unlike in the previous fugue, the subject enters in the order of voices from top to bottom. As a result, the subject appears each time in the lowest sounding voice. And

⁴¹ Heinrich Christoph Koch, Versuch einer Anleitung zur Composition, vol. 2 (1787), trans. Nancy Kovaleff Baker as Introductory Essay on Composition: The Mechanical Rules of Melody, Sections 3 and 4 (New Haven, CT: Yale University Press, 1983), 24–25.

Example 12: Fugue No. 13 in F[#], WTC 1, mm. 1–7



for that reason, the possibility of a cadence would always be frustrated, because the final harmony would bring a melodic 3, thus concluding with I⁶. So for the first two entries, the moment of subject closure at mm. 3 and 5 is prolongational, not cadential. When the bass voice finally enters at m. 5, we continue to expect that the subject will again fail to close with a cadence. This time, however, Bach tricks the listener and bypasses 3, thus allowing 1 to mark the end of the subject. As a result, the bass leaps from 5 to 1, creating an IAC at m. 7.⁴² The exposition thus closes, most exceptionally, with an S-ending cadence, one that extends in its structural scope to the beginning of the fugue.

The third exceptional case of an exposition closing with an S-ending cadence occurs in the G[#] minor fugue, book I. I postpone my discussion of this exposition until I consider the work as whole at the end of this essay.

⁴² Following the practice of Sanguinetti (*The Art of Partimento*), I indicate scale degrees in the bass voice by circled numbers.

THE FINAL CADENCE AS S-ENDING

From the discussion up to now, it should be evident that from a rhetorical perspective, Sending cadences are inherently weaker as markers of formal closure than are independent cadences, which contain conventionalized material standing apart from the subject. And indeed, a survey of Bach's practice in the *WTC* reveals that in the majority of cases, the cadences most responsible for articulating the major structural components of the fugue are independent. Consider the final cadence, which we would assume to be the strongest one of all. Of the forty-eight fugues, only four conclude with an S-ending cadence, thus supporting the view that independent cadences are better suited than S-ending ones to mark a fugue's important boundaries. And this proposition makes sense because, as already mentioned, the subject is in principle an initiating idea, even if it may sometimes end with a degree of cadential expression. Thus the strongest kind of closure sees the fugue concluding with a cadence that stands apart from, and thus contrasts with, the subject. And this is precisely the situation that Bach exploits most of the time.⁴³

Though they are exceptional, it would be instructive to examine the four S-ending final cadences of the *WTC* in order to understand why they are nonetheless effective in the contexts in which they arise. Consider the close of the G minor fugue, book I (Example 13). The lead-up to the end sees a subject entry in the alto in the third beat of m. 31, accompanied by various melodic motives featuring the durational pattern of two sixteenth notes followed by an eighth note. This material has been used throughout the fugue, its source being the final motives of the subject. But at m. 33, where the last subject entry appears in the tenor, the accompaniment suddenly changes: all of the sixteenth notes are eliminated, and voices are added to effect fuller chords. This powerful textural contrast, whose rhythmic uniformity helps to blur our hearing of the subject, distinguishes this measure from all that have come before and thus prepares the way for the S-ending cadence that concludes the fugue. Two factors contribute to make this cadence sound "independent," even if it really is not: first, the markedly different texture of m. 33, and second, the downplaying of the subject in an inner voice, so as not to interfere with the more structural, outer-voice cadential framework.⁴⁴

⁴³ As mentioned in n. 40, the fact that book II of the WTC (ca. 1744) contains many fewer S-ending cadences than book I (ca. 1722) perhaps reflects a tendency on Bach's part to highlight the structural function of independent cadences. In this respect, he may have been influenced by an emerging galant aesthetic that, in comparison to Baroque practice, favors a greater transparency of formal goals; for more on Bach's awareness of galant practices, see Robert L. Marshall, "Bach the Progressive: Observations on His Later Works," *Musical Quarterly* 62/3 (1976), 313–57, https://doi.org/10.1093/mq/lxii.3.313.

⁴⁴ To be sure, the return of the sixteenth notes in the final measure strongly references the end of the subject, thus permitting us to realize that this fugue is closing with a genuine S-ending cadence after all.



Example 13: Fugue No. 16 in G minor, WTC 1, mm. 31-34

The final subject entry of the F \sharp minor fugue, book I (Example 14), lies in the soprano voice in mm. 37–40, so that unlike in the previous example, we readily hear that the final cadence is S-ending. But given the slow tempo usually adopted for this piece and a subject that last four full bars, it is not so difficult to sense that this S-ending cadence has a somewhat more extensive structural reach than is ordinarily the case. Moreover, Bach provides one important cue that makes the final cadence seem more "marked" than it might otherwise be: in the middle of m. 37, right after the start of the subject, he employs a (5) pedal in the bass and then supports much of the subject with dominant harmony, which holds until the resolution to I⁶ on the second quarter note beat of m. 39. The cadence then appears shortly thereafter. We therefore see Bach using a technique I term *pre-cadential dominant expansion* as a means of helping to signal the cadence as structurally significant. Such an emphasis on dominant harmony directly preceding a cadence is found regularly in Baroque works (and especially those by Bach), and it seems to be a technique that is comparable to the Classical expanded cadential progression (ECP).⁴⁵

⁴⁵ See William E. Caplin, "The 'Expanded Cadential Progression': A Category for the Analysis of Classical Form," Journal of Musicological Research 7/2–3 (1987), 215–57, https://doi.org/10.1080/01411898708574585. In my forthcoming treatise, Cadence, I discuss and illustrate the technique of pre-cadential dominant expansion more fully in a chapter on Baroque music. There I show how Baroque works tend to feature compact cadential formulae and use genuine ECPs more or less infrequently. I see the technique of pre-cadential dominant expansion as an analogous means of creating a broad zone of cadential action while permitting a final compact cadence to emerge at the very end. I thank Naomi Edemariam for drawing my attention to this technique.



Example 14: Fugue No. 14 in F# minor, WTC 1, mm. 36–40

Example 15a: Fugue No. 17 in Ab, WTC 2, mm. 1–5



The four-voice A^b major fugue, book II, combines techniques that we have seen in the previous two fugues to help make the final S-ending cadence an especially powerful one. Example 15a shows the opening subject and answer entries along with the descending chromatic quarter notes that constitute the countersubject. Turning to the close of the work, Example 15b, we can observe that, as in the G minor fugue of Example 13, the final cadence sees the answer (at m. 48) buried in an inner voice, the tenor; moreover, Bach obscures our hearing the answer all the more by adding a fifth voice to the texture, namely, the chromatic countersubject, shown by the circled notes. Given the textural complexities of these final two bars, our listening attention is probably drawn more to the outer-voice motions, which are fully conventional in their cadential expression, than to the inner-

Example 15b: Ibid., mm. 44–50



voice answer. As in the F \sharp fugue of the prior example, Bach signals this final cadence considerably earlier than the appearance of the final answer entry, for back at m. 45 he writes a pre-dominant \sharp II⁶, in a significantly reduced texture, that is expanded for an entire bar, thus suggesting that an ECP is in the making. The progression is abandoned, however, when the bass twice leaps down a third to create inverted dominant-functioning harmonies in m. 46 (VII[§] and V[§]), thus projecting a pre-cadential dominant expansion,

emphasized by the fermata in the middle of that bar. The resolution to tonic on the downbeat of m. 47 leads to three attempts to realize a complete authentic cadential bass line, which, however, consistently fail to create final closure: (1) by allowing the bass to move up deceptively to (6) (at the end of m. 47), (2) by being abandoned in m. 48 as the bass strides all the way up to (8), and (3) by leaping from (4) down to (2) (m. 49) and then again from (4) down to (7) (mm. 49–50) in a manner that imitates in diminution the same leaping bass in mm. 45–46. After all of these failed attempts to create a standard (3)–(4)–(5)–(1) cadential bass line, Bach simply concludes the fugue with a compound (*composte*) cadence, employing a simple (1)–(5)–(1) bass that gives up even trying to engage (3) and (4). That we have entered into a broad cadential passage starting at m. 45 and continuing to the very end is clear, and the long-fought-for final cadence—S-ending that it may be—creates a powerful moment of arrival and closure.

The fourth case of an S-ending final cadence closes the D minor fugue, book II. In order to understand the rational for this cadence, we need to consider earlier passages, starting with the first entry of the subject in the exposition (Example 16a). Following the flurry of sixteenth-note triplets, a scalar eighth-note descent from $\hat{8}$ down to $\hat{2}$ concludes with a leap up to $\hat{5}$ and then down again to $\hat{3}$. At this point the answer enters, thus marking that the subject technically ends on this third degree. But like the situation we saw earlier in the F# major fugue (see again Example 12), the melody leaps further down to $\hat{1}$. This detail is important, because the tonic scale degree has been implied to be the real ending of the subject, as a realization of a complete octave descent from $\hat{8}$ to $\hat{1}$. Here, however, $\hat{1}$ seems to come after the conclusion of the subject on $\hat{3}$. With the answer in the soprano, this implication of tonic closure is realized when the melody now leaps from $\hat{5}$ directly to $\hat{1}$ (in A minor), thus by passing $\hat{3}$, as in the subject version. The final entry of the exposition, in mm. 6–8 of the bass voice, also features a final leap of a fifth. Indeed this ⑤–① motion might have created an S-ending PAC to close the exposition. Yet in line with his normal practice of not letting the exposition end cadentially, Bach abandons the cadence in a particular manner that will be discussed below. Even with this emphasis on a final tonic, one melodic implication is still left unrealized, namely, that $\hat{1}$ would be approached stepwise directly from $\hat{2}$ in a way that fully completes a scalar descent.

As the fugue progresses, the opportunity for the subject to conclude with stepwise motion arises again (see Example 16b) with the subject and answer stretto in mm. 14–16. Here, a complete scalar descent from $\hat{8}$ to $\hat{1}$ is realized but not so as to see $\hat{1}$ functioning to end the subject: by the time the tonic pitches arrive in the middle of m. 16 (D, in the alto, downbeat of m. 16; A in the soprano, one and a half beats later), the harmonies have already begun a sequential progression rendering these moments formally open, and the scalar descent continues. Only at the very end of the piece, now securely in D minor









music theory & analysis | volume 7, # 1, April 2020

Delivered by Ingenta IP: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press Example 16b: Ibid., mm. 14–17



Example 16c: Ibid., mm. 25-27



(Example 16c), does Bach finally bring a subject entry—well exposed in the soprano—that fully realizes the complete scalar descent from $\hat{8}$ to $\hat{1}$ without the interfering leap from $\hat{5}$. The use of an S-ending cadence here is thus fully justified and makes a highly conclusive effect.

CADENTIAL DEVIATIONS AND CADENTIAL BLURRING

Up to this point I have largely been discussing the genuine cadence types of PAC, IAC, and HC. Let us now consider some cadential deviations to see how they function in the context of Bach's fugal practice.⁴⁶ Of the three standard types—deceptive, evaded, and abandoned—only the first and third techniques appear in the WTC. (See again Table 2 for concise definitions of these deviation types.) The lack of any genuine evaded cadences (a deviation used much less in the Baroque repertoire than in later styles) is perhaps explainable by the disruption to the grouping structure that this deviation produces, an effect that would run counter to the normal aesthetics of rhythmic continuity so prized in the genre of fugue. Cadential abandonment, as we have seen, occurs only now and then, whereas the deceptive cadence is the deviation type most used in the corpus. A typical case of the latter can be seen toward the close of the C# major fugue, book I (see Example 17), which uses an S-ending deceptive cadence in the middle of m. 53. The cadential deception is immediately followed by episodic material with pervading sixteenth-note motion that leads to an independent PAC of contrasting texture. This cadence also includes the final motive of the subject, shown by the circled notes, which nicely references the previous deceptive cadence.

In the WTC fugues, Bach sometimes uses two forms of cadential deviation that are related to the standard types of deceptive and abandoned but do not fit so comfortably into these established categories. Both forms involve the leading tone, or an expected leading tone, within the cadential dominant, and both involve a bass line that remains conventionally cadential with a final (5-(1)) leap. In the first case, the leading tone is suspended over the harmonic resolution from dominant to tonic; but rather than resolving upward to complete the latter, the suspension resolves downward to create, in effect, a VI⁶ harmony in place of a final tonic. We have already seen a case of this deviation in Example 9b, where, in connection with a potential S-ending IAC in the middle of m. 13, the leading tone, A#, in the alto voice, fails to resolve to î, remaining instead as a suspension that resolves to $\hat{6}$ (with an ornamental decoration) on the fourth beat of the bar. Technically speaking, this is a deceptive cadence, because the final tonic of an authentic cadential

⁴⁶ If the general cadence concept of most prior theorists of fugue is problematic, as discussed earlier on, their treatment of cadential deviations is at times remarkably comprehensive. J. J. Fux, especially, discusses a number of techniques that yield what he calls a "deceptive cadence" (Alfred Mann, *The Study of Fugue* [New York: Dover, 1987], 91–92). Using modern terminology, these include changing the expected bass (⑤–①) to yield a different harmonic progression (e.g., ⑤–⑥, V–VI; ⑤–③, V–I^e; or ⑤–④, V–IV); retaining the expected bass (⑤–①) but changing an upper voice (Ŝ–ô, V–VI^e); and lowering the expected leading tone (²/₇) by a half step (¹/₇). Marpurg also discusses the same types as Fux but adds to the mix the omission of the final pitch of the expected cadence, which results in what I would consider a cadential evasion (*Abhandlung von der Fuge*, 112–13; see also Schubert and Neidhöfer, *Baroque Counterpoint*, 219–20).



Example 17: Fugue No. 3 in C#, WTC 1, mm. 52–55

progression is replaced by VI⁶. But the material content here is different from that of a normal deceptive cadence, which typically sees the leading tone rising to î while the bass moves up stepwise to support a root-position VI. In this less common form the bass resolves correctly, (5)–(1), but the leading tone descends. The term *inverted deceptive cadence* might be an appropriate one here.⁴⁷ In this example, the sense of denying a cadence is fairly strong because the fact that it comes at the end of the subject raises our expectations for cadential closure. But sometimes, as we see in Example 18, a similar formation arises in a context that seems less closing in function. Here a new episode begins on the downbeat of m. 15, using materials that have no direct relationship to the subject. Measure 16 contains a possible cadential progression whose bass line is completed on the downbeat of the following bar. But the cadence is denied when the leading tone in the soprano fails to resolve correctly, functioning instead as a downward-resolving suspension. Since there is no particular expectation of a cadence at this point, a new episode having just begun,

⁴⁷ Jean-Phillipe Rameau identifies a similar deceptive cadence (*cadence rompuë*) when first introducing that idea early in book 2 of the *Traité de l'harmonie* (Paris: Ballard, 1722), 61–63, except that Rameau's cadence sees the upper voice resolving to î rather than descending to ô, which is Bach's practice. One of Fux's examples of a deceptive cadence (Mann, *The Study of Fugue*, 92, Example 56, in four voices) is similar to Rameau's.



Example 18: Fugue No. 8 in D# minor, WTC 1, mm. 15–18

analyzing a genuine inverted deceptive cadence is perhaps questionable, though we likely perceive a whiff of this deviation nonetheless.

A different kind of deviation occurs when the ongoing context leads us to expect the appearance of a cadential leading tone, but instead that scale degree is lowered by a half step.⁴⁸ Inasmuch as the expected cadential dominant fails to appear, this deviation falls into the category of the abandoned cadence. Yet the effect of a possible cadence is somewhat different here than in most such cases, since, as in the inverted deceptive cadence, the bass line retains its conventional pattern, ⑤–①. One case of this deviation, which I term a *lowered leading-tone abandonment*, arises at the end of the exposition of the D minor fugue, book II (see again Example 16a, mm. 7–8).⁴⁹ As discussed earlier, the exposition is poised to conclude with an S-ending cadence when the subject makes a final leap from ⑤ to ① on the downbeat of m. 8. Yet in line with his normal practice not to end an exposition with a cadence, Bach abandons the potential cadence by failing to write a leading tone for the cadential dominant over ⑤; instead, he lowers the expected C♯ to C\\$, thus converting the harmony into a non-dominant minor-seventh sonority. Seeing as

⁴⁸ Markus Neuwirth, "Fuggir la Cadenza, or The Art of Avoiding Cadential Closure," in *What Is a Cadence? Theoretical and Analytical Perspectives on Cadences in the Classical Repertoire*, ed. Markus Neuwirth and Pieter Bergé (Leuven: Leuven University Press, 2015, https://doi.org/10.2307/j.ctt14jxt45.7, 122), traces this particular form of cadential deviation back to Gottfried Walther (*Musicalisches Lexicon* [Weimar: bey dem Verfasser, 1732], 125) and Angelo Berardi (*Documenti armonici* [Bologna: Monti, 1687], 152), the latter speaking of *motivo di cadenza* for the technique. Berardi's example arises within a broader descending-fifth sequential pattern, so its cadential implications are somewhat obscured; yet we will see shortly that Bach also employs this cadential deviation within a sequential context (see Example 19a below). A number of specifically fugal theorists, including Fux (Mann, *The Study of Fugue*, 91, Example 54), Marpurg (*Abhandlung von der Fuge*, 113 and Table XXXI, Figure 12x), Gedalge (*Treatise on the Fugue*, 251), and Ebenezer Prout (*Fugue*, 4th ed. [London: Augener, 1891], 74) identify the chromatic lowering of an expected leading tone as a technique of cadential deviation.

⁴⁹ Both Fux and Prout specifically identify this deviation using the Italian expression *inganno* ("deception"), but Marpurg references the same term for any kind of cadential deviation. Berardi's *motivo di cadenza* ("motive for cadence") is not particularly helpful, since it conveys no particular sense of deviation. To be sure, the term I have adopted, *lowered leading-tone abandonment*, is rather cumbersome but at least is accurately descriptive.



Example 19a: Fugue No. 17 in Ab, WTC 2, mm. 18–22

this chord generates no expectations for a final D minor tonic, Bach alters the harmony over ① into a dominant seventh, which briefly tonicizes the subdominant.⁵⁰ Within this context the minor seventh over ⑤ functions as a pre-dominant II⁷. Though the bass line may be heard to project a cadential moment associated with the home key of D minor, Bach redirects the harmonic focus to the subdominant side of the tonal spectrum, thus ensuring that the exposition closes without any cadential expression. Shortly thereafter, however, an episode initiated by the abandoned cadence in m. 8 succeeds in confirming the home key with a genuine, and independent, PAC on the downbeat of m. 10.

The A^b major fugue, book II, whose ending I discussed earlier (in Example 15), is saturated with this deviation type (see Examples 19a and 19b). Starting at m. 18 the alto

⁵⁰ The tonicized IV barely appears in m. 8 as a six-four sonority on the second half of beat 2, before the harmonic context changes again in order to tonicize C major (*b*VII of the home key).



Example 19b: Ibid., mm. 25-27

sounds a subject entry, whose final pitches lead to a potential cadence in m. 20 when the progression I-II[§] points toward a cadential dominant to appear on the second half of beat 2. If the soprano voice had introduced a G⁴ at this point, resolving to A⁴, the harmonic progression would have yielded an S-ending cadence. As actually composed, however, the cadence is abandoned when G^b appears in the soprano, thus deflecting the tonal context one step to the flat side (D_{\flat}) . Note that unlike in most abandoned cadences, the bass line continues to project its conventional pattern of (4–5–1). A sequence of this same pattern then appears in the first half of the following measure. Immediately thereafter (second half of m. 21) we hear in the alto the standard melodic configuration for a double cadence (*cadenza doppia*), except that $\hat{7}$, on the last eighth-note beat of the bar, is once again flattened. A final case (Example 19b) then occurs toward the end of m. 25,⁵¹ after which the section concludes in the middle of m. 27 with an independent cadence in C minor (III of the home key). Looking over these four cases of lowered leading-tone abandonment, it is important to distinguish those that seem to have a genuine potential to *function* cadentially from those that merely include cadential content in non-cadential formal contexts. The first and fourth cases (Example 19a, m. 20, and Example 19b, mm. 25–26) appear at the close of

⁵¹ This last case is further muddied when what we expect to be a V⁷/IV (downbeat of m. 26) sees the third of that harmony lowered by a half step (to Ab), thus denying its true dominant function, which instead becomes a pre-dominant II⁷ of Eb. To avoid an overly complicated analysis on the score, I have not annotated this additional tonicization, instead showing the altered dominant as "V⁷."

subject entries, thus failing to fulfill a potential S-ending cadence. The other two cases (Example 19a, mm. 21–22) represent sequential repetitions of the initial abandonment and thereby cannot be seen to mark the "end" of any broader formal unit. This distinction between cadential function and cadential content takes place in many of Bach's fugues. Indeed, the third case study to be examined below (the G# minor fugue, book I) plays extensively with this distinction in ways that promote some interesting processes of retrospective reinterpretation.

The various cadential deviations just discussed involve cases where an implied cadence fails to be fully realized. Very often, and especially in fugal genres, a closing configuration meets the harmonic, melodic, and formal requirements for genuine cadence, yet elements of the texture *blur* an unambiguous expression of cadential closure. Most typically, the blurring arises from various embellishments, especially suspensions and their resolutions, within the cadence's individual voices, which may result in incomplete harmonies at the moment of arrival. The practice of maintaining ongoing rhythmic activity in one or more voices can produce a modest degree of blurring as well. A cadence can also be blurred when, shortly prior to the moment of cadential arrival, one or more voices initiate a subject entry, thus creating a formal overlap.⁵²

Cadential blurring affects the rhetorical expression of cadence, not its syntactical function, since we still recognize that closure has been obtained, even if it is to some extent blurred. If the blurring in a given case does not in itself allow us to deny its status as a genuine cadence (otherwise the situation would be one of cadential deviation), the practice of blurring tends to correlate with the cadence's formal significance: those that mark major divisions tend to have little or no blurring effects, while those that arise within a section, and especially in the context of S-ending cadences, may well become blurred. Finally, the technique of blurring is not associated with genuine cadences exclusively, for often a cadential deviation may also feature such elements (see the use of a 7–6 suspension in Example 9b, m. 13). This usage makes sense, of course, since the composer specifically wishes in such cases to avoid a genuine cadence, and techniques of blurring in themselves help rhetorically to inhibit that sense of closure. (To save space, I will not introduce any

⁵² These various modes of cadential blurring are frequently identified in the secondary literature on the WTC as well as more generally by theorists of fugue. Most often these techniques are associated with the goal of furthering rhythmic and textural continuity, an aesthetic ideal of fugue that is repeatedly invoked. Thus Kerman speaks of "undercutting" a cadence (*The Art of Fugue: Bach Fugues for Keyboard*, 23) and Benjamin, of "obscuring" it (*The Craft of Tonal Counterpoint*, 211). Fux specifically discusses how a subject entry that overlaps a cadential arrival can help "maintain the continuous flow" that should prevail in a fugue (Mann, *The Study of Fugue*, 94). Schubert and Neidhöfer note that the use of suspensions at a cadence can "continue the forward momentum, but do not necessarily weaken the sense of arrival. Indeed, sometimes they can be thought of as heightening it" (*Baroque Counterpoint*, 219).

new examples of cadential blurring here but rather will discuss such situations as they arise in the G# minor fugue, book I, as part of a case study at the end of this essay.)

THREE CASE STUDIES

This discussion of cadential deviations and blurring concludes my presentation of theoretical issues pertaining to the use of cadence in the fugues of the *WTC*. Because the examples up to now have been excerpted from a variety of pieces, I devote the rest of this article to three case studies in order to show how the ideas presented above can help illuminate cadential processes in some complete fugues.

1. Fugue in D major, WTC I

I start with the D major fugue, book I, whose exposition we studied earlier (see again Example 11). This fugue, in the style of a French overture, is largely homophonic in texture, and so its cadential articulations emerge with clarity. We have already seen the extensive use of S-ending cadences in the exposition. Two other details, however, are worthy of note. First, two of the three S-ending IACs confirm the subordinate key of A major (mm. 3 and 6). It is therefore not surprising that this key receives no further cadential confirmation in the course of the fugue. Second, the right hand of m. 3 brings an innocent sixteenth-note melodic configuration, labeled motive x, that ends a brief internal episode. The motive is derived from the final four thirty-second notes of the subject's head motive (as identified in m. 1), though in that context it hardly stands out as an individual idea. We will see shortly how Bach develops this motive extensively, in its sixteenth-note version, in some later episodes of the fugue. Turning now to Example 20a, the music that follows the exposition, we encounter at m. 9 another S-ending cadence, an IAC in B minor (VI). That this cadence has a larger scope than those in the exposition can be explained by its being heard to embrace both an episode (in m. 6) and a pair of subject entries, the first of which lies in the bass (in m. 7) and cannot therefore create a cadence.

Looking ahead, the cadence at m. 9 also signals a clear sectional division, since what follows is a markedly new episode, one that exploits motive x, which I highlighted from the exposition. Measure 10 continues the episode by sequentially repeating m. 9, and the beginning of m. 11 seems like it, too, might be another sequence. But when the bass continues with the dotted rhythm on beat 2, it suggests the possibility of a full subject entry. The rest of the subject, however, does not appear; instead, this voice becomes the conventional bass line of a cadence, which supports a genuine subject entry arising in the soprano voice and concluding with an S-ending IAC in G major (IV). Unlike the previous

music theory & Analysis | volume 7, # 1, April 2020





Delivered by Ingenta P: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press



cadence, this one is not a sectional marker since the texture remains unbroken; moreover, a subject entry in the alto follows immediately an entry whose cadential possibility is denied by the deceptive cadence on the downbeat of m. 13.⁵³ Note that for the first time thus far in the fugue, a subject entry occurs in an inner voice, allowing the soprano lying above to be directed toward melodic closure on î. The implied S-ending PAC is unrealized, as just mentioned, owing to the harmonic deception on the downbeat of m. 13.

The deceptive cadence now leads to those two exceptional deviation types discussed earlier. First, another home-key S-ending cadence is promised for the downbeat of m. 14, but the dominant fails to materialize when the expected leading tone, on the last beat of m. 13, is lowered (to C^k) and the resulting tonicization of IV abandons the cadential progression. Subsequently, an S-ending PAC is projected to appear on the downbeat of m. 15. This one is also denied, due to the 7–6 suspension and the resulting inverted deceptive cadence. In light of these three failed cadences, it is no surprise that Bach finally gives up on the subject as a source of cadential closure and employs instead an independent midway PAC to end part 1 of the fugue at m. 17. In fact, Bach has not only exhausted the potential for S-ending cadences, but has no more interest in sounding the complete subject. The rest of the fugue thus remains entirely episodic.

Moving on to Example 20b, we first hear another episode based on motive x. This episode, more extensive than the previous one, is initially closed in the home key by an independent IAC at m. 21. Note that the imperfect melodic closure here arises as a diversion from an expected PAC when the leading tone shoots up stepwise to reach 3° rather than concluding more normally on 1° . Moreover, the cadential progression emerges from a descending-fifths sequential pattern (see the root motion shown beneath the roman

⁵³ This alto subject begins in the subdominant, like the prior entry in m. 11, but is then refashioned to close in the home key.



Example 20b: Ibid., mm. 17–27

numerals), thus undermining to a degree the expression of cadential function.⁵⁴ As a result of these blurring details, the episode continues on, and the cadential melodic idea in m. 22, the same one from m. 20, resolves as expected to 1, thereby yielding an independent PAC at m. 23. Note that the harmonic support, beginning with I⁶ and including the predominant II⁶, is more conventionally cadential than the previous one, which could also be heard as sequential.

From a purely tonal perspective, m. 23 could have functioned as the end of the fugue. But Bach has more to say, and thus in a coda he finally dispenses with the motive-x material of the prior episodes and focuses instead on the subject's head motive. This idea bounces back and forth between the outer voices so as to create a pervasive running sixteenthnote effect, one that climaxes in m. 24 with sixteenth notes together in the outer voices. Measure 25 sees a sudden liquidation of the fast notes and a new focus on the dotted rhythms of the subject (the feature that most clearly defines the French overture style). The fugue finishes by liquidating these dotted rhythms, leaving a completely conventional PAC for final closure, a cadence that clearly matches in content the midway PAC back at m. 17.

Looking at the broader cadential picture, we see the fugue starting with an exaggerated emphasis on S-ending cadences in the exposition and moving then to further employment of that device up to m. 12, after which all subsequent S-ending implications fail to

⁵⁴ Eighteenth-century composers were normally very careful to distinguish between sequential and cadential materials; the separation of these two harmonic and formal categories began to break down in the early Romantic style (see Caplin, "Beyond the Classical Cadence," 10–14).

be realized. The independent midway cadence at m. 17 brings the strongest cadential articulation thus far in the piece. Bach then abandons the complete subject (and its potential for S-ending cadences) and develops instead a large episode based on motive x and the subject's head motive. This second part of the fugue quickly brings the music back to the home key, which Bach initially confirms with an independent, yet also problematic, IAC at m. 21. Two subsequent PACs, each of which is also independent of the subject, conclude the fugue. With respect to fugal technique and cadential content, the two parts of this fugue could hardly be more different. Yet the piece seems highly unified nonetheless, owing no doubt to the consistent development of ideas derived from a relatively short subject and an even shorter contrasting motive (x).

2. Fugue in Eb major, WTC I

The E major fugue, book I (Example 21a), features a subject that modulates to the dominant region, as projected by its closing scalar descent from 4 to 1 (with a cadential trill on 2). The answer is tonal, being adjusted to remain in the home key and ending with the same cadential melody. Both versions are thus crying out to receive an S-ending cadence at some point in the fugue. Yet within the exposition Bach makes certain that such a cadence cannot emerge by having the voices enter from the top voice down (soprano, alto, bass), such that a cadential bass line cannot be set below either version. As a result, the exposition ends with prolongational closure on the third beat of m. 7. An episode starting in the middle of that bar leads to an answer entry in the soprano at the upbeat to m. 11.⁵⁵ Here Bach could potentially have created an S-ending cadence; instead, he places in the bass the countersubject (from m. 3), a melodic idea that has no resemblance to a cadential bass line. Ending on the third scale degree, the bass creates again a case of prolongational closure. Another episode then moves the music off to C minor and concludes with conventionalized passagework and an independent PAC at m. 17.

This midway cadence closes off the first part of the fugue. The second part, which, like the C minor fugue, book I (Figure 1), employs a modified rotation of materials from part 1. We first hear a counter-exposition in C minor, one that omits the initial subject. But the following episodic material (not shown) quickly brings the music back home to E_{\flat} , which (as seen in Example 21b) is announced by an answer entry in the bass at m. 26. Unlike the soprano entry that it matches within the rotational scheme (namely, the one at m. 11; see again Example 21a), this answer in the bass voice continues to inhibit the formation of an S-ending cadence (in the middle of m. 27). At m. 29 the subject enters in the soprano,

⁵⁵ The episode at m. 7 is actually the second one in the fugue, since a short internal episode appeared in mm. 4–5.

Example 21a: Fugue No. 7 in Eb, WTC 1, mm. 1–17



















thus finally allowing a cadential bass line to realize the long-awaited potential for Sending closure; and, because the subject is modulating, this PAC confirms for the first time the subordinate key of B^J major, albeit late in the game. Though the cadence is syntactically strong, it seems to function as one of limited scope, thus not rivaling the structural significance of the midway cadence in C minor back at m. 17. Like the S-ending cadences that we saw earlier in the C minor fugue, the cadence at m. 30 seems designed more to achieve the goal of realizing this type of cadence than to articulate any broader formal design.

If Bach has finally realized a long-awaited S-ending cadence, he has done so only in the subordinate key, and we may wonder whether a comparable cadence will confirm the home key. In fact, that possibility arises when the non-modulating answer appears for the last time at m. 34, now in an inner voice, thus enabling the bass to effect cadential closure. Yet even here, Bach fails to deliver a true S-ending cadence, providing instead a deceptive one, which defers until m. 37 the fugue's closing PAC, one that is entirely independent and thus structurally stronger than any S-ending cadence would have been.

Example 21b: Ibid., mm. 25–37







 $\begin{array}{c|c} B\flat\colon {\underline{I^6\ II^6}} & V & I \\ (V) & (PAC) \\ & (S\text{-ending}) \end{array}$







3. Fugue in G[#] Minor, WTC I

My final case study, the G[#] minor fugue, book I (Example 22a), is notable for also having a modulating subject, but one that closes with a melodic pattern 3-4-5-1 (motive x) that obviously has the potential of functioning as a cadential bass line (3-4-5-1), the only clear-cut case of such a configuration in the whole of the WTC.⁵⁶ In addition, this is the third exceptional case of an exposition ending with a cadence (the two others having already been discussed).

Given the subject's distinctive melodic close, an S-ending cadence can only arise when the subject appears in the lowest sounding voice. So if Bach wants to ensure that the exposition of this fugue, like almost all others, does not end with a cadence, he must not

⁵⁶ Two other subjects in the collection conclude with the cadential bass motion (5–1). The subject of the A minor fugue, book I, brings its cadential implications in the context of a (4–3–2–(5–1) construct, which is conventionally associated with Robert O. Gjerdingen's Prinner schema; see Gjerdingen, *Music in the Galant Style* (New York: Oxford University Press, 2007), chap. 4. When functioning cadentially, this formation yields an IAC, as realized twice in this fugue (mm. 35 and 46); for more on this *Prinner cadence*, see William E. Caplin, "Harmony and Cadence in Gjerdingen's Prinner," in Neuwirth and Bergé, *What Is a Cadence*? 17–57, https://doi.org/10.2307/j.ctt14jxt45.4. In the E♭ major fugue, book II, the subject, which toward its end projects a potential (3–6)–(1) line, seems more like an upper voice than that of a bass; moreover, it is not entirely clear just where the subject actually ends (on the downbeat of m. 6 or m. 7?); indeed the subject is never realized with a clear S-ending cadence at any point in the fugue.



Example 22a: Fugue No. 18 in G# minor, WTC 1, mm. 1–9

let the final entry appear in the bass. Looking at how he handles this opening, he seems to be aware of the issue, since he places the first entry moderately low in the keyboard's range. The remaining subject entries of the exposition could then occur above the lowest sounding voice, thus precluding a cadence. Because the first entry sounds alone, the close of the subject creates, in effect, an S-ending cadence, one that is obviously limited in scope to the subject itself. With the second entry, a tonal answer that remains in the home key, the first sounding voice, as usual, continues to reside below, such that no cadence can occur. The same situation obtains when the third entry brings back the subject version at m. 5. It, too, cannot close with an S-ending cadence.

Now, to understand the wonderful game that Bach seems to be playing here, we need to put ourselves in the position of listeners who know that this is a four-voice fugue but have neither heard the piece before nor are observing the score during the performance. Under these circumstances, they might have the impression that the subject appears first in the bass, followed by the tenor and alto. They might then expect the soprano to



Example 22b: Fugue No. 9 in E, WTC 2, mm. 1–7

complete the exposition, thus making certain that it does not end with a cadence. But when the fourth entry arrives in m. *7*, Bach reveals the trick he has been setting up all along: he closes the exposition with the answer version placed *below* all of the other voices, that is, in the *real* bass. As a result, the conditions are ripe for a subject-ending PAC, one that could be heard, most exceptionally, to end the exposition as a whole.⁵⁷ Moreover, this cadence confirms the home key, since the answer, unlike the subject, is non-modulating.⁵⁸

Let me note two additional points in connection with this exposition. First, one might object that the tessitura of Example 22a is too high for Bach to be playing the game I have proposed, and that listeners would automatically assume that the exposition begins with the tenor voice. Yet if we consider the opening of the E major fugue, book II (Example 22b), we see an exposition that starts with the bass and brings its subject entries systematically upward. Comparing this section to the G[#] minor fugue, we see that Example 22a is pitched only a couple of tones higher than Example 22b. In other words, that the former might be heard to start with the bass voice is not out of the question. Second, if the G[#] minor fugue had actually begun with the bass (Example 22c), then the final voice, the soprano,

⁵⁷ Note that the texture of this cadence is entirely homophonic, since the inner voices follow the rhythmic eighth noteeighth rest pattern of the countersubject in the soprano. As a result, this S-ending cadence may actually seem like an independent one, whose texture and rhythm stand apart from the more pervasive polyphony in the rest of the exposition.

⁵⁸ That the first cadence (aside from the potential one of m. 3) confirms the home key may seem normal from the perspective of later compositional styles. As discussed earlier, however, such a practice is relative rare in fugues of the *WTC* and in the High Baroque style generally.



Example 22c: Fugue No. 18 in G[#] minor, WTC 1, mm. 1–9, rewritten

would have started on a high D[#]. With that possibility in mind, and looking ahead to Example 23b, it is fascinating to observe how Bach realizes this pitch level the very next time the soprano sounds the subject (at m. 24).

Having concluded the exposition with an S-ending cadence (Example 23a, m. 9), Bach immediately undermines the sense of closure by reinterpreting the cadential idea to "become" (\Rightarrow) a short model for sequential repetition, twice up a third (mm. 9–11). These sequences create a brief episode before the answer enters again in m. 11, this time in the tenor. Since the bass drops out after completing its threefold sequence of the cadential idea, the tenor now represents the lowest voice (as it did at the opening of the fugue) and therefore realizes another S-ending cadence on the downbeat of m. 13.⁵⁹ This cadence is rhetorically *blurred* by the 4–3 suspension in the alto, which does not resolve until the second beat of the bar and over which the soprano quickly steps down from its melodic close. And once again Bach undermines the effect of cadence by sequencing it twice, this time downward. Following the sequence, a subject entry appears at m. 15, now back in the bass voice, and an S-ending cadence arises at m. 17, blurred again by a 4–3 suspension but now in the soprano, whose decorated resolution features a prominent upward skip that recalls the leaping motive y from the subject (see the first half of mm. 12 and 16).

⁵⁹ Note that the passage in mm. 11–13 resides in a high tessitura for all three upper voices. This would have been the placement of these voices if the initial subject entry of the exposition had been set in the bass voice, as discussed earlier (see again Example 22c). This fact, in addition to the tessitura of the soprano at m. 24, further supports the idea that a first-time listener may have been surprised when the true bass voice effects a cadence at the end of the exposition.



Example 23a: Fugue No. 18 in G# minor, WTC 1, mm. 8–17

In the entire section shown in Example 23a, the cadential bass line ending the subject, motive x, obsessively appears in the lowest sounding voice. From this point forward (Example 23b), Bach permits this motive to migrate to the upper voices, thus denying its potential for cadencing. We first hear a subject entry in the tenor at m. 17 while the bass continues to sound below. At m. 19 the alto is permitted a subject entry (in the answer version) for the first time since the start of the piece, after which motive x completely Example 23b: Ibid., mm. 17–25



drops out for the ensuing episode (mm. 21–23). This relatively extended episode closes with the first independent cadence of the piece in the middle of m. 24. In a forty-one-bar fugue, this cadence may qualify as a midway one (though occurring somewhat later than the exact midway mark). Yet unlike many midway cadences, which help divide a fugue into two major parts, this potentially formal marker is blurred in a number of ways. First, the soprano, having remained out of sight since m. 19, enters with the subject at m. 24 (in

the high part of the tessitura mentioned earlier), thus overlapping the formal boundary defined by the cadence. Second, the cadence promises to confirm the supertonic key of A[#] minor, a region rarely tonicized, much less modulated to, in a minor-mode work, since the second degree normally supports a diminished triad. Owing to the intervallic demands of the subject, however, Bach must raise the third of the implied minor-mode tonic to C×, and though we might be tempted to hear a Picardy effect, we could also perceive a deceptive cadence if we take this harmony as a secondary dominant of the local subdominant, to which it quickly heads for another couple of beats.⁶⁰ In other words, whereas the bass line and harmonic content articulate an acceptable cadence on the third beat of m. 24, several factors help to obscure this midway cadence as a decisive formal boundary.

Indeed, the material that follows (Example 23c) does not suggest the start of a new section, but rather continues to develop ideas and motives in largely the same textural and rhythmic context as that which preceded the cadence. At m. 26 the bass again enters with the answer, realizing at m. 28 an S-ending cadence in III, rather late for confirming a standard subordinate key. The cadence is blurred, however, by double suspensions and the downward stepwise motion of the bass. As in earlier cases (at mm. 9 and 13), the cadence is followed by model-sequence technique, but this time the cadential idea is not reinterpreted; instead, the new model follows the cadence. To support this model, the bass uses a varied cadence-like pattern, (3)-(2)-(5)-(1) (motive z), one that differs from that used in the subject (3–4–5–1), motive x).61 Although this variant provides some relief from the potential overuse of motive x, Bach nonetheless returns to that motive in the second half of m. 30, thus creating a cadence, one blurred by a 4-3 suspension in the alto voice. This second cadence in the subordinate key is especially interesting. In respect of its content, it sounds like the many S-ending cadences we have heard throughout the fugue, since it brings with it motives associated with both the end of the subject (motive x in the bass) and the end of the countersubject (in the soprano). In fact, however, the complete subject has not been sounded, so the designation "S-ending" is definitionally incorrect; instead, this cadence is more accurately identified as independent, one that closes off the preceding three-bar episode and that differentiates itself from the actual S-ending cadence (m. 28). As the music continues, though, the cadential idea of m.

⁶⁰ This type of deceptive cadence—involving the use of V⁷/IV to replace the final tonic—is typical of Bach's practice, though otherwise relatively rare in eighteenth-century styles; see Mark Anson-Cartwright, "Elision and the Embellished Final Cadence in J. S. Bach's Preludes," *Music Analysis* 26/3 (2007), 267–88, https://doi.org/10.1111/j.1468-2249.2008.00259.x.

⁶¹ As discussed in n. 56, this bass is typically associated more with a Prinner cadence than with a standard authentic cadence.

Example 23c: Ibid., mm. 25–37







music theory & analysis \mid volume 7, # 1, april 2020

IP: 81.229.191.246 On: Sat, 08 Aug 2020 19:46:41 Copyright Leuven University Press



30 then functions as the model for a sequential repetition in m. 31, thus giving rise to the kind of retrospective reinterpretation so characteristic of this fugue.

A subject entry in the tenor at m. 32 is supported by free counterpoint in the bass, so an S-ending cadence is avoided on the downbeat of m. 34. Then in the middle of that measure Bach drops out the bass so that the tenor can continue with yet another statement of motive x in the lowest sounding voice. Here, in mm. 34–35, we are surprised to hear another potential cadence in B major (an IAC, with a 4-3 suspension in the soprano), for it would be especially odd to encounter a *third* consecutive cadence in the same key. But when we recognize that the bass supporting this cadence actually lies in the tenor voice, we can understand that this tenor line (as well as the material it supports in the upper voices) sequentially repeats the final idea of the immediately preceding subject, and as such, identifying a genuine cadence at m. 35 must be rejected. When two more sequential repetitions occur in mm. 35–36, motive x first returns to the true bass voice (m. 35) but then again moves back into the tenor (m. 36). Moreover, Bach accords even greater attention to motive x in these measures, first doubling it at the third in the alto and then, in the following bar, in the tenor and soprano. Given the pervasive modelsequence technique exhibited from the non-cadential end of the subject entry in m. 34 through to m. 37, Bach may allude to a redundant third cadence in B major at m. 35, but in fact, he cleverly makes sure not to realize one.

As the fugue approaches its end (Example 23d), a final subject entry in the soprano in m. 37 is completed on the downbeat of m. 39 without any cadential effect, given its placement on top of the texture. But as a kind of last gasp of the subject's end, with its characteristic cadential bass line (motive x), Bach immediately imitates that idea in its "proper" voice, the bass, in the second half of m. 39. Tonally, this cadential figure is pointing to C# minor, the subdominant region of the home key. And the appearance in m. 39 of that key's leading tone (B#) in the soprano moving up to tonic (C#) even raises the possibility that a double cadence (*cadenza doppia*) might emerge, as reconstructed in Example 23e. Instead, Bach performs a lowered leading-tone abandonment, thus yielding a B⁴ on the last beat of m.

Example 23d: Ibid., mm. 37-41





Example 23e: Ibid., mm. 39–40, rewritten



39 (Example 23d), which keeps the music oriented around the home key.⁶² As a result, the C[#] harmony on the downbeat of m. 40 functions not as a tonic, but rather, and most appropriately here, as the pre-dominant for the *independent* cadence that ends the fugue, a double cadence configuration that realizes the abandoned *doppia* just preceding it.

⁶² Note that the return to G[#] minor is anticipated by a chromatic alteration to motive x in the bass of m. 39, whereby the

Before further considering this final cadence, let us observe several other aspects of the emphasis Bach accords to the subdominant immediately preceding that cadence. First, it is general Baroque practice to give significant expression to this region toward the end of a work, perhaps as a kind of counterbalance to the emphasis that the dominant often receives earlier on, and more specifically in fugues, through the alternation of subject and answer versions in the exposition. Second, it is understandable that in this particular fugue, Bach would begin the final subject version in C# minor (soprano voice, mm. 37-38), because its modulating structure would naturally lead it to close in the home key of G[#] minor. Yet he shuns that modulation by continuing to set the final pitches of the subject (motive x in m. 38) within the realm of C# minor. Finally, most of the subject is set against a G# pedal in the bass voice that stretches to the fourth beat of m. 38. Though we might be tempted to recognize a tonic pedal in the home key, the context makes clear that this is a *dominant* pedal in the prevailing region of C# minor. Indeed, dominant harmony continues to be expressed when the bass moves down to F# on the fourth quarter note of m. 38. The resulting $V_2^{\frac{1}{2}}$ is syncopated into the next measure, where it resolves to I⁶, setting in motion the cadential progression that becomes abandoned.63 This prolonged dominant thus produces a pre-cadential dominant expansion that highlights all the more the continuing expression of C# minor right up to the final cadence in the home key.

Turning now to that final PAC, we can observe that Bach employs a cadential progression that stretches over two bars (mm. 40–41); the expansion here may seem modest enough, but the progression is twice as long as any seen earlier in the fugue. Moreover, he entirely shuns referencing the cadential bass line, motive x, which was so prominent with all of the S-ending cadences and in so many of the sequential passages, in favor of an independent final cadence that is entirely conventional in content and that does not allude to the subject at all. To modern sensibilities (conditioned perhaps by nineteenth-century attitudes of formal circularity), the idea of allowing the cadential idea from the subject to close the fugue itself might seem like an obvious compositional choice; yet it is one that Bach does not make, staying closer to an eighteenth-century aesthetic that understands closure to be most strongly created when using materials that are not associated with initiating ideas.

use of #④ brings an F×, the leading tone of the home key. The leap down from ③, another variant to the motive, especially highlights this chromatic change.

⁶³ Here we may find another reason for Bach's choosing to use a chromatically raised ④ in this final appearance of motive x in the bass: he may have not wanted to sound again the diatonic F#, which just before had been emphasized in the same voice via the syncopation.

To conclude this analysis, let us review how Bach uses cadences in the G# minor fugue as a whole. As with almost any fugue, a good deal depends upon the nature of the subject itself. Here, that it closes with a cadential bass line determines much of what happens cadentially throughout the work. At the start (Example 22a), we saw the clever game Bach plays of pretending to avoid an S-ending cadence to close the exposition (in line with his standard practice of keeping this section open-ended), only then to place the final entry in the real bass voice so that motive x, the cadential bass line, could realize an implied Sending cadence (m. 9). We then observed (Example 23a) how Bach immediately undermines that cadence when he takes the cadential idea as a model for sequential repetition. This mode of retrospective reinterpretation (\Rightarrow) occurs several times throughout the fugue, each instance finding motive x appropriately placed in the bass voice. As the piece progresses, a number of S-ending cadences in the home key arise, again, when motive x occurs in the bass (mm. 13 and 17). Given this rather unusual emphasis on the home key, it is high time to explore other tonal regions. The first is the rarely tonicized supertonic (A# minor), which receives an independent cadence around the midway point of the fugue (Example 23b, m. 24), though the many blurring devices used there almost totally obscure this cadential articulation. Next Bach turns to the more conventional subordinate key, B major (III), providing an S-ending cadence at m. 28 (Example 23c), followed then by an independent cadence (m. 31), which, as we saw, imitates the material content of an S-ending cadence. A potentially third, fully redundant cadence in B major at m. 36 fails to function cadentially owing to its being placed in the heart of a broad model-sequence technique (mm. 33-37). At this late point in the fugue (Example 23d), Bach turns, conventionally, to the subdominant region, providing a pre-cadential dominant expansion of that key and the makings of an independent double cadence using a chromatic variant of motive x in the bass (m. 39). But at the last second, a lowered leading-tone abandonment leads quickly to a realization of the doppia pattern with an independent final cadence that has no relation to the subject whatsoever, thus capping a virtuosic display of cadential options within this remarkable fugue.

CONCLUSION

Needless to say, the *WTC*'s core forty-eight piece repertoire offers many fascinating uses of cadential material that could not be discussed and illustrated here. Each fugue finds its own ways of deploying the cadential devices that I have defined and illustrated in this essay: independent, S-ending, and midway cadences, along with various cadential deviations and blurring procedures. In the selected fugues that I have chosen to examine, we have become aware of how cadential content must be carefully distinguished from cadential function, for often materials that might signal a cadence actually occur within non-cadential formal contexts, such as the initiating units of the exposition or the model-sequence technique of subsequent episodes.

Of particular analytical significance is the distinction I have drawn between independent cadences and S-ending ones, especially since it seems reasonable to conclude that the former tend to exhibit greater rhetorical force than the latter and are furthermore most typically used to mark the major formal divisions of a fugue. But we have also seen that some S-ending cadences can serve that function as well. At other times, however, an Sending cadence may be used for purposes that appear to have no formal import, such as when it occurs merely to show that a particular subject is capable of receiving such closure, normally one that is limited in scope to the subject itself.

Finally, I hope that the results of this inquiry help support my contention that a highly delimited concept of cadence—one that specifically distinguishes cadential closure from prolongational closure—can generate significant analytical observations. Indeed, a major reason why cadences have been neglected in fugal theory, and often fully overlooked in analyses of fugues, may be owing to earlier definitions of cadence that saw any dominant-to-tonic harmonic motion as cadential in nature. Under that theoretical perspective, the enormous proliferation of "cadences" within a fugue could potentially obscure the kinds of analytical findings generated by my theory of cadence. By including a notion of non-cadential, prolongational closure as a viable analytical tool, alongside the array of genuinely cadential options introduced here, I believe that cadence can be rehabilitated within our study of fugue, not only in Bach's "forty-eight," but in fugal composition of any sort.

Abstract

In the traditional theory of fugue, the issue of cadence is normally relegated to a minor role, with only cursory attention given to how cadences articulate various modes of closure within a fugue. This article offers new perspectives on cadential practice in fugue based on a comprehensive examination of J. S. Bach's *Well-tempered Clavier*. Using some fundamental concepts of tonal cadence in general, including a strict delimitation of its harmonic content, a consideration of its formal scope of closure, and a set of cadential deviations, I investigate how cadence operates both to articulate formal boundaries and to realize potentialities for cadence that may not have a clear formal role. The study relies extensively on a distinction between *subject-ending cadences* (of limited formal scope) and *independent* cadences (not associated with the end of the subject)—the latter, more than the former, being responsible for major points of formal closure. I explain why a fugue's exposition rarely ends with a cadence and consider those exceptional cases where the end of the fugue brings a subject-ending cadence. The article concludes with analyses of cadential practice in three complete fugues (in D major, E h major, and G minor, all from book I of the WTC).

About the Author

William Caplin is Distinguished James McGill Professor of Music Theory at the Schulich School of Music, McGill University, specializing in the theory of musical form and the history of harmonic and rhythmic theory in the modern era. His book *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (Oxford, 1998) won the 1999 Wallace Berry Book Award from the Society for Music Theory (SMT). Caplin publishes in the leading journals of his discipline (*Music Theory Spectrum, Journal of the American Musicological Society*, and *Eighteenth-Century Music*, among others) and has contributed book chapters to major collections of essays (such as the *Cambridge History of Western Music Theory*, the *Oxford Handbook of Topic Theory*, and *Beethoven's "Tempest" Sonata*). His research was honored in the 2015 Festschrift *Formal Functions in Perspective: Essays on Musical Form from Haydn to Adorno*, edited by Steven Vande Moortele, Julie Pedneault, and Nathan John Martin. A former president of the SMT, he has presented many keynote addresses, guest lectures, and workshops in North American and Europe. In 2015 Caplin was elected a Fellow of the Royal Society of Canada.