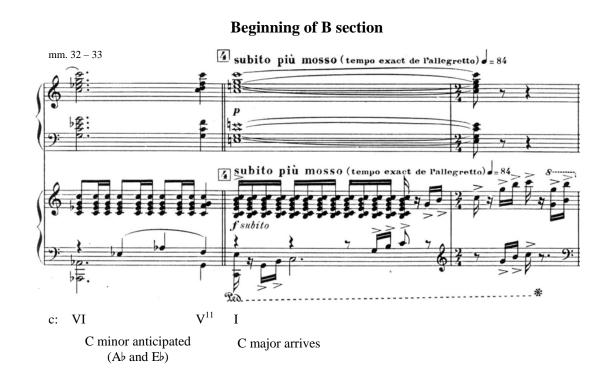
with G in the bass, shown below in Example 4.9. As with the G minor that never arrived, C minor would have been closely related to the home key. This time, however, it would have been as its submediant instead of its mediant. Finally, landing on C minor instead of C major would have avoided the enharmonic paradox on pitch-class 4.

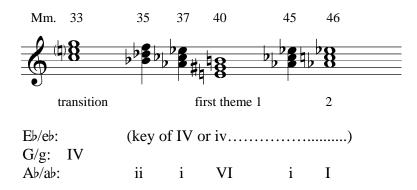


Example 4.9 Poulenc, Piano Concerto, second movement, first part of B section, mm. 32–33, anticipation of the minor mode and unexpected arrival of C major

The primary key areas of this first part of the B section, C major, E major, and Ab major, are summarized in Example 4.10. The keys tonicized for a shorter duration, shown as quarter notes, are included to show relationships with the main keys.

Justification for relating C major back to G major, instead of giving it its own major-minor complex, will be given below.

B section (part 1):



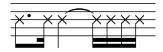
Example 4.10 Poulenc, Piano Concerto, second movement, key relations in the first part of the B section

Parallel modes and the chromatic mediants they support thwart expectations and emerge as the main point of tension for the entire movement. The second half of the B section has the loudest dynamics in the movement thus far, with *fortissimo* and *fortississimo* entrances of the theme, double-dotted rhythms, flights into the high registers in the solo part, and frequent harmonic moves to remote keys. Appropriately, then, this section is also the place in the movement that best illustrates these points of tension in the pitch structure.

The second B theme starts in C major in m. 52 with a rhythmic motive similar to that of the first B theme—a comparison of the two is shown in Example 4.11 below.

This theme is repeated in Eb minor in m. 60 and in E minor in m. 66. After a few subsequent measures of brief tonicizations, a retransition that centers on the dominant, Bb major, leads to the A' section and a return of the tonic, Eb major.

Rhythm of first B theme



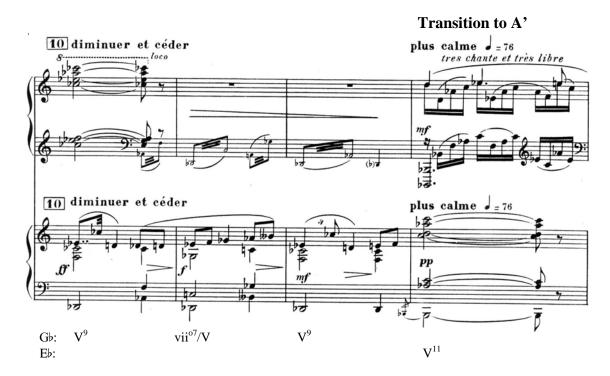
Rhythm of second B theme



Example 4.11 Poulenc, Piano Concerto, second movement, comparison of the two main themes of the B section

Example 4.12 below is an analysis of the most chromatic segment of the B section, the rapidly modulating passage in mm. 70–77. Starting in m. 72, each key is only briefly implied by its dominant before the big arrival of the home key's dominant, which enters in m. 77 to usher in the return of A section material and the tonic Eb major in m. 84. Also shown in Example 4.12 are several enharmonic reinterpretations of diminished-seventh chords.

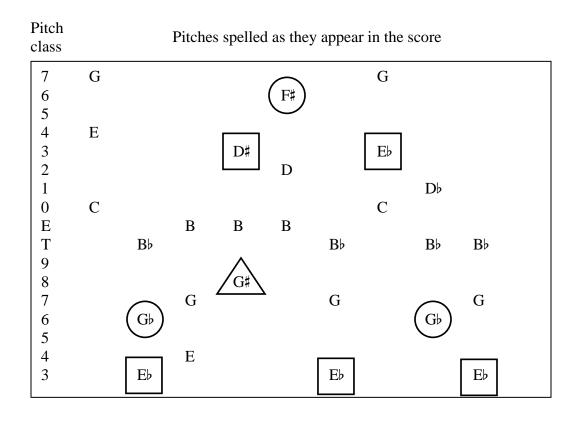




Example 4.12 Poulenc, Piano Concerto, second movement, mm. 70–77, analysis of chromatic segment near the end of the B section

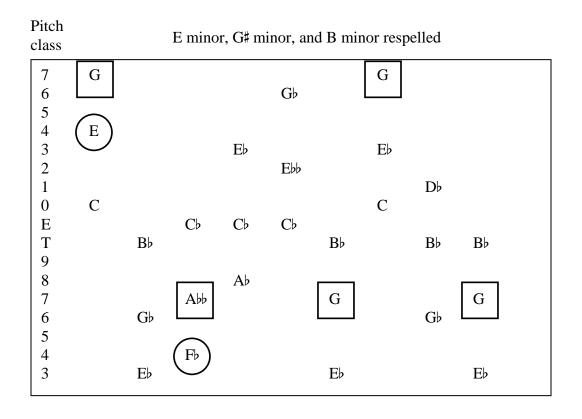
We can now move from the harmonic summary to an investigation of the enharmonic problems in the second half of the B section. Pitch-class 3 is spelled as Eb in the Eb major and minor and C minor tonicizations but is spelled D# in G# minor.

Likewise, pitch-class 6 is spelled as Gb when in Eb minor and Gb major but as F# in B minor. Additionally, pitch-class 8 is spelled as G# here in contrast to its spelling as Ab in several important moments in the piece so far. These enharmonic spelling issues are shown below in Example 4.13 using spelling from the score.



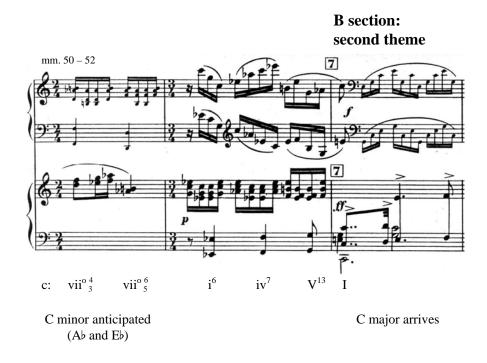
Example 4.13 Poulenc, Piano Concerto, second movement, second part of B section, enharmonic paradoxes with spelling from the score

Because several of these spelling discrepancies happen due to the sharp spelling of G# minor and B minor, perhaps respelling those using flats will solve the problem—this possibility is explored in Example 4.14. To avoid another paradox on pitch-class 11, the E minor could be spelled as Fb minor; however, new problems arise with pitch-classes 4 and 7. Pitch-class 4 is already spelled as E in the C major at the beginning of the segment, and pitch-class 7 is spelled as G in the C major and the tonic Eb major. Eb major and minor and C major and minor should keep their spellings from the score, because they have already been presented in those forms at important thematic moments in the piece.



Example 4.14 Poulenc, Piano Concerto, second movement, second part of B section, enharmonic paradoxes minimized with respelling

These enharmonic paradoxes may be accounted for in part by appealing to the theory of mode mixture again, starting with the modal ambiguity preceding the first entrance of the B section's second theme. As in the entrance of the first B theme described earlier, it begins in C major following a couple of measures that anticipate C minor, shown in Example 4.15. If C minor had appeared as expected, the enharmonic paradox with pitch-class 4 in Fb minor (respelled E minor) would not have arisen.



Example 4.15 Poulenc, Piano Concerto, second movement, second part of B section, mm. 50–52, anticipation of minor mode and unexpected arrival of C major

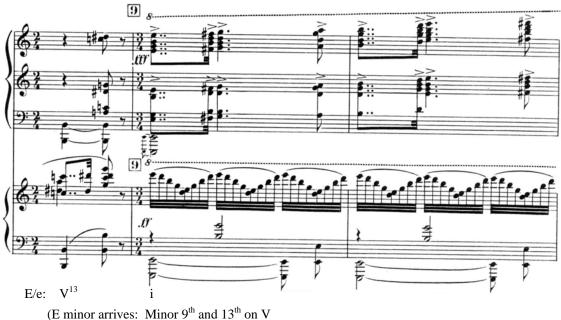
The paradox concerning pitch-class 7 would have vanished if Fb major had entered instead of Fb minor (respelled E minor) for the third entrance of the B section's second theme. As shown below in Example 4.16, this case, in which the minor mode is a

surprise after the expectation of the major mode, is the converse of all the previous examples from the movement thus far, in which parallel majors unexpectedly replace minors. The modulation from Eb minor to E minor in mm. 64–66 involves an enharmonic respelling, although a purely notational one. The F# minor chord in m. 64 (an enharmonic respelling of Gb minor) is the chromatic mediant iii chord in Eb minor, but it becomes the ii chord in E major (Fb major), followed by a chord functioning as the dominant thirteenth of E minor (Fb minor). The respelling as E major and minor in the score is for notational convenience, to avoid the double flats in Fb major, the Neapolitan. At the entrance of the theme in m. 66, however, the minor mode arrives instead of the major, bringing in pitch-class 7 unexpectedly and causing enharmonic issues. Here again we see the invocation of a parallel key to thwart expectations.



(E major anticipated: Neapolitan of previous key, minor ii chord.)

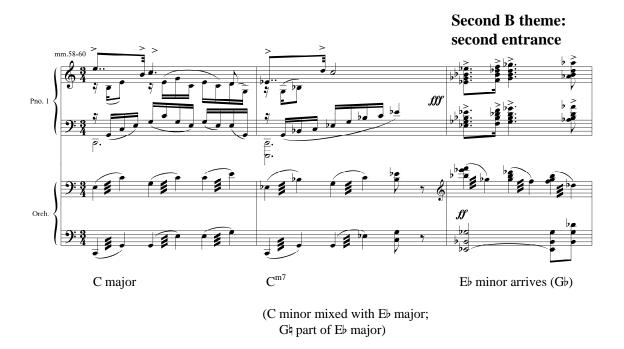
Second B theme: third entrance



(E minor arrives: Minor 9th and 13th on V chord, minor i at theme entrance)

Example 4.16 Poulenc, Piano Concerto, second movement, second part of B section, mm. 62–67, anticipation of major mode and unexpected arrival of E minor

Although not directly related to an enharmonic paradox, another surprising change of mode occurs when the Eb minor that begins the second statement of the second B theme follows a measure that indicates Eb major (Example 4.17 below). The preceding material is in C major, and the C minor-seventh chord in m. 59 results from mixture with C minor. Eb major would follow naturally from this chord, since this seventh chord consists of both a C minor and an Eb major triad. As in the coda section shown in Example 4.1, pitch-class 6, Gb, arrives unexpectedly instead of G\(\beta\).



Example 4.17 Poulenc, Piano Concerto, second movement, second part of B section, mm. 58–60, anticipation of major mode and unexpected arrival of Eb minor

Of the keys tonicized at the three main entrances of the second B theme, only Eb minor from the second iteration may be related easily to the tonic Eb major. C major, from the first entrance, the parallel of the submediant, C minor, played an important role in the first half of the B section. E minor, or Fb minor, is unrelated to the home key of Eb major-minor, but it is related to the two other surprise keys that have been presented at structurally important moments in the piece thus far: G major and C major. The rapid harmonic changes in mm.70–77 (shown as quarter notes below in Example 4.18) move through G# minor, B minor, Eb major, C minor, and Gb major. All of these key areas seem to be exploiting mediant and submediant relationships along with their parallel majors and minors, just as in the A section. The three entrances of the second theme and

the transition are noted below the staff in Example 4.18. The brackets show keys implied by their dominants, with no root-position tonic presented.

B section (part 2):

Mm. 52 60 66 70 71 72 73 74 77 second theme 1 2 3 transition to A' Eb/eb: i iv I vi iii I VI iv VI Ab/ab: v i i V V iii V

Example 4.18 Poulenc, Piano Concerto, second movement, key relations in the second part of the B section

As shown above, the keys tonicized before the brackets create a strange, though surprisingly regular, pattern. There is an alternation between keys related to Eb (and its subdominant, Ab) and keys related to G major, including *its* subdominant, C major, which is featured prominently at the head of both themes in the B section. Within the brackets, all the tonicized keys can be related to the home key of Eb major-minor, and all but Gb major are related to all three key complexes in some way.

There are several reasons why I give G its own major-minor complex and not C. First, the move to G major is the first modulation in the piece and the first chromatic relationship to the tonic. Though the main theme is presented in this key, C major is used only in the transition to the B section and in its second theme. In my opinion, the three

primary key complexes emerge in the more harmonically and thematically stable A section, while the keys and melodies in the B section are more fleeting. Additionally, all the keys in the B section not related to the tonic can be analyzed in terms of G majorminor, whereas the B minor key area in the second half would not readily fit in C majorminor. Finally, the subdominant relationship is emphasized in the movement, with Ab major-minor making up a large number of measures and appearing at several entrances of themes. Just as the subdominant Ab is subordinate to the tonic Eb, the subdominant C is weaker than its tonic, G.

4. The A' section

A brief closing passage of the B section, mm. 77–83, resolves the tension of the frequent modulations by calming the tempo and "standing on the dominant" of the home key in preparation for the A' section. At last, the home key of Eb major returns, along with the familiar main theme. This section is much abbreviated as compared to the original A section. It contains only one statement of the main theme in Eb major, along with the eight-measure coda discussed above in Example 4.1. The coda neatly wraps up the movement, first by bringing back motives resembling those of the B section, and second by using borrowed notes from the parallel minor, something the preceding analysis has well established as a common thematic device of the piece (see Example 4.19 below).

A' section: Eb/eb: I (borrowed from i) G/g: VI Ab/ab: V

Example 4.19 Poulenc, Piano Concerto, second movement, key relations in the A' section

5. Conclusion

The second movement of Poulenc's Piano Concerto contains several enharmonic paradoxes, where one pitch class calls for multiple spellings to reflect local relationships at different times. The arrival of G major instead of G minor in the third statement of the main theme in the A section leads to an enharmonic paradox with pitch-class 11, which should be spelled B\(\bar{\pi}\) with G major but C\(\bar{\ph}\) in the later A\(\bar{\ph}\) minor. Similarly, when C major enters instead of C minor at the beginning of the B section, an enharmonic paradox arises with pitch-class 4. It must be spelled as E\(\bar{\ph}\) here, but F\(\bar{\ph}\) later to relate to the surrounding A\(\bar{\ph}\) major-minor. Later in the B section, C major again thwarts the expectation of C minor, creating another enharmonic paradox on pitch-class 4. The surprising E minor (spelled as F\(\bar{\ph}\) minor to avoid yet another paradox) that enters instead of E major causes an enharmonic paradox with both this C major (on pitch-class 4) and the tonic, E\(\bar{\ph}\) major (on pitch-class 7). Finally, mixture with E\(\bar{\ph}\) minor in the coda leads to another enharmonic paradox around its third, pitch-class 6. The coda underscores the primary

role that unexpected parallel modes play in the story of the piece. The coda directly juxtaposes two parallel chords several times before leaving out the third in the final chord of the movement, an elegant summary of the ambiguity of mode that is emblematic of this work.³⁸

In every one of the cases of enharmonic paradoxes described above, mixture plays a crucial role, as in Beethoven's Piano Sonata op. 57 from Chapter 2 and Fiona Apple's "Extraordinary Machine" discussed in Chapter 3. With the G major and C majors, the very pitches that frustrate the arrival of the minor mode, the third scale degrees in each key, become centers of enharmonic problems. Likewise, with E minor from the B section and Eb minor in the coda, the mode-altering third scale degrees are the pitches involved in the enharmonic paradoxes.

Mixture is so common that we may regard the tonic as Eb major-minor, with a subdominant key of Ab major-minor. Almost every tonicized key in the movement can be related to either the tonic or subdominant major-minor complex. This category includes keys at important thematic entrances—Eb major, Ab major, E major (respelled as Fb major), and Eb minor—as well as keys from more transitional sections—F minor, Ab minor, Bb minor, G# minor (respelled as Ab minor), C minor, and Gb major (the last two of which are never presented as tonic triads). These two key complexes are set up to be important early on: during the A section, the first two entrances of the theme in Eb major and the fourth entrance in Ab major are more thematically complete and harmonically stable than the third entrance, which starts in the unrelated key G major and cycles

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³⁸ Cadencing on an incomplete triad is a technique occasionally used by Poulenc. Keith W. Daniel, *Francis Poulenc: His Artistic Development and Musical Style*, 77.

through minor-third-related keys. The harmonic space of Eb major-minor and Ab major-minor may be combined into a realm containing the two key complexes, designated as the "Eb/eb & Ab/ab realm."

The tonicized keys that cannot fit into the Eb/eb & Ab/ab realm include the G major, C major, and E minor found at entrances of main themes, as well as the more briefly presented D minor and B minor. These keys are all closely related to either G major or C major, keys which have been prominent in the overall form of the piece. These will be referred to as belonging to the "G & C realm," but not G/g and C/c. Again, as with the Eb/eb & Ab/ab realm, these are in a subdominant relation.

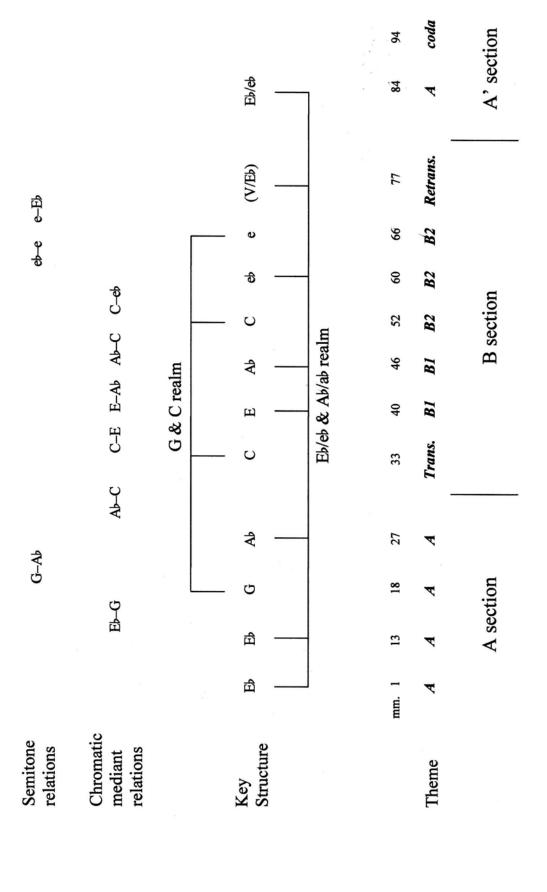
The first few harmonic events of the piece exploit these two realms; the main theme is presented in Eb major, the main key of the Eb/eb & Ab/ab realm, followed by a statement in G major, the main key of the G & C realm. Next comes a statement of the main theme in the less prominent, subdominant key from the Eb/eb & Ab/ab realm, Ab major, concluding the A section. The B section begins in C major, the weaker, subdominant key from the G & C realm. The fact that the main theme is never presented in C major and that it is excluded from the A section justify not analyzing the piece using a C major-minor complex in addition to the other three shown throughout this chapter. A precedent is set for alternating between the two realms, which continues especially in the second half of the B section, as seen in Example 4.18 above.

The second movement of Poulenc's Piano Concerto also features several relationships by semitone, as in the Beethoven example from Chapter 2 and the Fiona Apple song from Chapter 3. For example, the fourth entrance of the main theme is in Ab

major, a semitone higher than the previous entrance in G major. Correspondingly, the last two thematic entrances in the B section are in Eb minor and E minor, a semitone apart. Finally, at the very end of the B section, there is a semitone shift from keys related to E major-minor (E minor, G# minor, and B minor), whose spelling I changed to Fb major-minor, 39 to those related to Eb major-minor (Eb major, C minor, Gb major, and back to Eb major). Although there are several relations by semitone, there are many more chromatic-mediant relationships in the piece.

Notably, every time there is a shift between the Eb/eb & Ab/ab realm and the G & C realm, there is either a relation by semitone or by chromatic mediant. This is shown below in Example 4.20, which is a summary of the keys at main thematic entrances and their relationships with each other and the Eb/eb & Ab/ab or G & C realms.

³⁹ Refer back to the discussion of the second half of the B section above.



Example 4.20 Poulenc, Piano Concerto, second movement, summary diagram

In the first movement of Beethoven's Piano Sonata op. 57, chromatic relationships by semitone and enharmonic paradoxes arose in conjunction with mode mixture within keys closely related to the tonic, F minor. Ab major-minor and C major-minor opened the door for more foreign key relations. Similarly, in Fiona Apple's "Extraordinary Machine," the remote move to A minor in the bridge and the resulting enharmonic paradoxes were foreshadowed by the emphasis on notes from mode mixture with C# minor earlier in the song. In this second movement of Poulenc's Piano Concerto, both G minor and C minor would have been closely related to the tonic Eb major, but the unexpected arrival of the parallel keys, G major and C major, resulted in enharmonic paradoxes, as well as key relationships by chromatic mediant and semitone. All three compositions, then, have demonstrated that chromatic phenomena related to the thematic use of mode mixture mark them as residing on the border between diatonicism and chromaticism.

Chapter 5: C.P.E. Bach's Fantasy in C Major, Wq 59/6

The free fantasia may offer the best insight into the compositional mind of Carl Philipp Emanuel Bach; in fact, the final chapter of his only major treatise, *Versuch über die wahre Art das Clavier zu spielen*, is devoted to the genre. While much of his compositional output was written for specific people or the public, the free fantasias were written for himself or for private performances. The genre also embodies the characteristics most associated with C.P.E. Bach's musical style. His "unique expressive language" consists of "sudden pauses, shifts in surface motion, harmonic shocks, and occasional formal experimentation." His style was also admired for its diversity, and he was "the great eclectic, willing to embrace whatever he found good." His skill as an improviser was well known during his lifetime, and he also wanted to be remembered for it after his death, explaining in a letter that he chose to include fantasias in the keyboard music *für Kenner und Liebhaber* (including the one that will be analyzed in this chapter) for this purpose.

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¹ Carl Philipp Emanuel Bach, *Essay on the True Art of Playing Keyboard Instruments (Versuch über die wahre Art das Clavier zu spielen)*, trans. and ed. William J. Mitchell (New York: W.W. Norton, 1949).
² Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach" (PhD diss., Yale University, 1995): 9; Douglas A. Lee, "C.P.E. Bach and the Free Fantasia for Keyboard: Deutsche Staatsbibliothek Mus. Ms. Nichelmann I N," in *C.P.E. Bach Studies*, ed. Stephen L. Clark (Oxford: Clarendon Press, 1988):

³ David Schulenberg, "C.P.E. Bach through the 1740s: The Growth of a Style" In *C.P.E. Bach Studies* (see note 2), 217.

Wayne C. Petty, "C.P.E. Bach and the Fine Art of Transposition," in *Schenker Studies 2*, ed. Carl Schachter and Hedi Siegel (Cambridge: Cambridge University Press, 1999): 49.

⁵ Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach," 8.

The fantasy is a display of another important aspect of Bach's style, his desire to affect the listener through constant twists and surprises. C.P.E. Bach's musical sense of humor and wit has been compared to that of Haydn, ⁶ and he plays musical "jokes" on the listener through confusion, disorientation, and "expectational defeat." The free fantasia can also provoke more profound emotions in both the performer/improviser and the listener. Etienne Darbellay notes that Bach's instructions to the performer often go beyond technicalities of playing and into expressiveness, telling them to play "from the soul, not like a trained bird" and that a musician "cannot move others unless he too is moved." C.P.E. Bach's style was so expressive that it "made instruments act out the rapid changes of human emotion" and "caused the speechless clavichord to speak," so much so that the poet and playwright Heinrich Wilhelm von Gerstenberg was prompted to try setting two different texts, Hamlet's contemplation of suicide and Socrates' last words, to the Fantasy in C minor from 1753. Bach himself claims that "it is principally in fantasias that the keyboard player can best master the feelings of the audience."

The definition of fantasy is difficult to pin down and has been used in many contexts and time periods by different composers. It does not indicate a specific formal design, but one idea common to fantasies in general is improvisation. ¹¹ C.P.E. Bach

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⁶ Annette Richards, *The Free Fantasia and the Musical Picturesque* (Cambridge: Cambridge University Press, 2001): Chapter 4.

⁷ Susan Wollenberg, "A New Look at C.P.E. Bach's Musical Jokes," in *C.P.E. Bach Studies* (see note 2): 296.

⁸ Etienne Darbellay, "C.P.E. Bach's Aesthetic as Reflected in his Notation," in *C.P.E. Bach Studies* (see note 2): 52.

⁹ Eugene Helm, "The 'Hamlet' Fantasy and the Literary Element in C.P.E. Bach's Music," *The Musical Quarterly* 58/2 (Apr., 1972): 277–96. Quotes from page 295.

Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach," 10.

¹¹ Edward Laufer, "On the Fantasy," *Integral* 2 (1988): 99.

developed a new kind of fantasia, the free fantasia. Before him, fantasias were mainly used as preludes to other works, but his stood alone as independent compositions. Additionally, C.P.E. Bach's free fantasies were independent of the learned counterpoint of his predecessors and contained unmeasured sections in the declamatory style and moved through many more keys. 12 In his dissertation, Matthew Head describes three fundamental liberties in the free fantasy: time, tonality, and arrangement of ideas. The first of these includes tempo and meter changes, as well as unmeasured passages. 13 The freedom in arrangement of ideas means that the music is not ordered according to the rules of composition and is not based on a principal theme. Rather, the music moves rapidly from one melodic idea to another and through seemingly momentary ideas.¹⁴ The freedom for which C.P.E. Bach's free fantasias are most known is that of tonality. In these pieces, there is no conventional plan of closely related keys, leaving room for bold modulations to remote areas and leading to passages with no root-functional connection between chords. 15 Most pertinent to the topic of this dissertation, the "liberties of harmonic syntax ... may join with enharmony to create disorienting passages of modulatory flux from relatively straightforward harmonic progressions," and this enharmony is meant to "rouse violent affections," similar to mad scenes in Baroque opera seria. 16

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¹² Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach," 15–16, 38.

¹³ Ibid., 49–53.

¹⁴ Ibid., 65–74.

¹⁵ Ibid., 54–65.

¹⁶ Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach," 61–62.

There seems to be a conflict between freedom and order in C.P.E. Bach's fantasias, however. Head suggests that, according to Bach's *Versuch*, despite these tonal freedoms, Bach's free fantasias have a "coherent tonal organization," because Bach "insists on the need for overall tonal unity," establishing the tonic clearly at both beginning and end. At one point, Heinrich Schenker claims that Bach composes without schematic formulas in mind for form, idea, or harmony, but he later comes to think that Bach (and others) often used plans when writing fantasias. Schenker links improvisation to compositional unity, positing that the creative genius always keeps the relationship between background structure and foreground in mind while improvising; this implies that that even improvisatory works like free fantasies can have a comprehensible structure. Peter Schleuning describes the composed improvisations of Bach and others as the appearance of disorder with the tonal logic of thoroughbass practice beneath, and Schenker similarly describes Bach's style as order concealed by the appearance of disorder and bold tricks.

C.P.E. Bach's dichotomous nature is also noted by Etienne Darbellay, who says that the "microcosm of his artistic activity clearly reveals the paradox of the century." ²¹ Pamela Fox suggests that Bach's seemingly paradoxical style and critics' contradictory comments about his music stem from the multiplicity of musical styles present during his lifetime, different musical languages in which he was fluent. These contradictions

¹⁷ Ibid., 55; C.P.E. Bach, *Essay*, trans. William J. Mitchell, 431.

¹⁸ John Rink, "Schenker and Improvisation," *Journal of Music Theory* 37/1 (Spring, 1993): 3–4.

¹⁹ Ibid., 5–6.

²⁰ Ibid., 9–10.

²¹ Etienne Darbellay, "C.P.E. Bach's Aesthetic as Reflected in his Notation," 44.

include public versus private, practicality versus perfectionism, and improvisatory freedom versus notated prescription, and they lead to her description of his style as "nonconstant." In her dissertation, Darrell Berg notes mannerist characteristics in C.P.E. Bach, including a simultaneous dependence upon and rejection of the aesthetics of the past, "caprice, excess, and eclecticism," and "not only extreme refinement, but also virtuosity for its own sake, and artifice."²³ Annette Richards, in her book *The Free* Fantasia and the Musical Picturesque, compares the contradictions in Bach's fantasia style to the picturesque aesthetic, using the contrast between wild and cultivated or regularity and unruly freedom in an English garden as an example. She claims that "[1] ike the picturesque, the fantasy has a certain post-modern appeal," because, "[f]ragmentary, subjective, open-ended, it simultaneously resists interpretation and offers itself promiscuously to multiple readings" and is "ambiguously placed between improvisation and composition."²⁴ Richards says that fantasias "exploit ... the sense of lost direction, of being immersed in a structure whose pattern is unclear, even undiscoverable," but they may actually be "highly crafted with a carefully planned underlying logic."²⁵ As a result, the experience of the piece for the listener is "from moment to moment without a teleogical sense of its overall pattern" and "the immediate topography of this wilderness of the imagination can seem almost impassible," but "[u]pon studying the piece, the plan may be clear." It is with the assumption that a

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²² Pamela Fox, "The Stylistic Anomalies of C.P.E. Bach's Nonconstancy," in *C.P.E. Bach Studies* (see note 2), 110–115.

Darrell Berg, "The Keyboard Sonatas of C.P.E. Bach: An Expression of the Mannerist Principle" (PhD diss., State University of New York at Buffalo, 1975): 45.

²⁴ Annette Richards, *The Free Fantasia and the Musical Picturesque*, 15.

²⁵ Ibid., 17–18.

²⁶ Ibid., 63–64.

masked but discoverable plan exists in this music that I venture into a harmonic analysis of C.P.E. Bach's Fantasy in C major, Wq 59/6 (H. 284) from 1784.

Before such an analysis can begin, it is important to understand the composer's own ideas about music. C.P.E. Bach is known as an individualist thinker whose views did not always match those of his contemporaries. While the ideas of his contemporaries became canonical and favored by history, Bach's notions of form and harmony faded into obscurity. Pamela Fox claims that he "did not regard form as a source of dramatic and expressive potential, but rather as a necessary formal stereotype into which he crowded intense moment-to-moment activity."²⁷ There is evidence that, although he used the formal types of rondo and sonata form, Bach conceived of these forms differently than his colleagues. 28 A comparison of C.P.E. Bach's writings on modulation to those of Johann Philipp Kirnberger reveals that Kirnberger views modulation as a means to create form while C.P.E. Bach's figured bass skeleton indicates nothing about formal structure.²⁹ This exposes both conservative and progressive tendencies in both points of view. Kirnberger is conservative when it comes to adventurous modulations, but his conception of form is forward-looking; Bach, on the other hand, is progressive and daring about when and how to modulate to any key he chooses, but he still holds on to the thoroughbass and emphasis on improvisation that were already seen as old-fashioned during his lifetime.³⁰ David Ferris summarizes that while "other theorists were beginning

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²⁷ Pamela Fox, "The Stylistic Anomalies of C.P.E. Bach's Nonconstancy," 108.

²⁸ Wayne C. Petty, "C.P.E. Bach and the Fine Art of Transposition"; Wayne C. Petty, "Koch, Schenker, and the Development Section of Sonata Forms by C.P.E. Bach," *Music Theory Spectrum* 21/2 (Autumn, 1999): 151–173; David Ferris, "C.P.E. Bach and the Art of Strange Modulation," *Music Theory Spectrum* 22/1 (Spring, 2000): 60–88.

²⁹ David Ferris, "C.P.E. Bach and the Art of Strange Modulation," 66.

³⁰ David Ferris, "C.P.E. Bach and the Art of Strange Modulation," 67–69.

to conceive of modulations as structurally coherent events, which have implications for the form of an entire piece, Bach continued to represent his *Modulationen* as moments of great expressive force, whose structural functions are not necessarily relevant."³¹

This difference in perception about modulation may be rooted in the changing meanings of the German words *Modulation* and *Ausweichung*. Before the 1770s, *Modulation* meant change of pitch or pitches in succession, whether or not there was a shift between two keys, but by the early 1770s, as clarified by Kirnberger and his student J.A.P. Schulz, *Modulation* and *Ausweichung* became nearly synonymous words dealing with a change of key. ³² Bach "continues to describe a modulation as a momentary event that does not necessarily include a cadence in the new key," while he "exclusively uses Ausweichung to refer to a change of key" in the original writing on modulation in the *Versuch*. In a paragraph he added in a later revision, he uses the word *Modulation* for "freer kinds of chromatic progressions" but refers to restricted modulations that the older generation advocated as *Ausweichungen*. ³³ For Bach, the terms are separate; his view of the purpose of modulation is at odds with what became the prevailing ideas about form.

Perhaps, then, a non-traditional approach is needed when analyzing key relationships in C.P.E. Bach's music. According to David Ferris, from Bach's perspective, "even the most momentary chromatic digression should be considered in

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³¹ Ibid., 87.

³² Richard Kramer, "The New Modulation of the 1770s: C.P.E. Bach in Theory, Criticism, and Practice," *Journal of the American Musicological Society* 38/3 (Autumn, 1985): 554–55; David Ferris, "C.P.E. Bach and the Art of Strange Modulation," 65.

³³ David Ferris, "C.P.E. Bach and the Art of Strange Modulation," 74–75. See also William J. Mitchell, "Modulation in C.P.E. Bach's *Versuch*," in *Studies in Eighteenth-Century Music: A Tribute to Karl Geiringer on his Seventieth Birthday*, ed. H.C. Robbins Landon and Roger E. Chapman (New York: Oxford University Press, 1970): 333–42.

terms of a change of key."³⁴ In a discussion of the *Heilig* for double choir, Richard Kramer points out that, from Bach's own words as well as Georg Benda's, "[n]either Bach nor Benda will construe the bold modulatory inflections between choruses as chromatic inflections" but as "relationships of a deeper order." The Chorus of the Angels continually moves through remote keys, whereas the Chorus of the People is in more familiar tonal territory; this difference is meant to highlight the distance between the two groups dramatically.³⁵ Bach's own view of key changes and dramatic purpose for them supports my careful treatment of each tonicization in the Fantasy in C major, no matter how brief, and my interpretation of the use of multiple tonal worlds for dramatic purposes as will be seen in the analysis below.³⁶

This particular free fantasia, with its frequent modulations, many melodic themes, and improvisational style, is emblematic of C.P.E. Bach's musical style and favorite genre, and it presents many challenges for the analyst. As demonstrated in Chapter 1, the piece also has enharmonic spelling paradoxes. The following analysis will combine contradictory diatonic and chromatic elements in an attempt to put the big picture of this difficult piece into focus. During several sections, the fantasy does not have measures, which makes it cumbersome to refer to specific examples; I must, therefore, begin with my interpretation of the form to make the rest of the analysis more clear. The complete score, with rehearsal numbers added, appears in the Appendix.

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³⁴ David Ferris, "C.P.E. Bach and the Art of Strange Modulation," 67.

³⁵ Richard Kramer, "The New Modulation of the 1770s," 566–68.

³⁶ Jan La Rue, in "Bifocal Tonality: An Explanation for Ambiguous Baroque Cadences," in *Essays on Music in Honor of Archibald Thompson Davison* (Cambridge: Department of Music, Harvard University, 1957): 173–84, also employs a double-tonic complex idea, although the focus is earlier than C.P.E. Bach, in the Baroque period. Many stylistic elements of the Baroque Period, such as throroughbass and frequent modulations, can be found in his music.

1. Overview and Form:

The piece is in three main sections. The theme that opens the fantasia, in C major, will be referred to as the "Andantino main theme."



Example 5.1 C.P.E. Bach, Fantasy in C major, Wq 59/6, incipit of the Andantino main theme

After the first fermata, the *Andantino* main theme begins again in G major. Each time, the recognizable part of the theme only lasts a few measures before fragmenting into thirty-second-note arpeggios or scales. Another memorable, although harmonically unstable, section arrives after the second fermata, the quickly modulating passage marked *Prestissimo*, which will be called the "*Prestissimo* theme."



Example 5.2 C.P.E. Bach, Fantasy in C major, Wq 59/6, incipit of the *Prestissimo* theme

It begins in Bb minor and moves to F# major, G minor, Eb major, and back to G minor. ³⁷
A brief return of the *Andantino* main theme follows before the third fermata, after which new material is presented starting in Ab minor. The new material is termed the "Improvisational theme," because, although lyrical, the melody is irregular and has many embellishments, lending it an improvisational character.



Example 5.3 C.P.E. Bach, Fantasy in C major, Wq 59/6, incipit of the Improvisational theme

There is another return of the *Andantino* main theme before a cadence in B major, which becomes the dominant of the following B section.

The B section begins with the lyrical *Allegretto* section in E minor, which will be termed the "*Allegretto* main theme."



Example 5.4 C.P.E. Bach, Fantasy in C major, Wq 59/6, incipit of the Allegretto main theme

 $^{
m 37}$ This is the specific passage with the enharmonic paradox that was discussed in Chapter 1.

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This continues for over a page. According to Matthew Head, a songlike passage resembling an aria or a slow movement often appears as the central section of Bach's fantasias.³⁸ At the tempo change back to *Andantino*, another new theme arrives, which is designated the "*Andantino* appoggiatura theme."



Example 5.5 C.P.E. Bach, Fantasy in C major, Wq 59/6, incipit of Andantino appoggiatura theme

This theme is often associated with enharmonic shifts and transitions to other themes, and it resembles the opening *Andantino* theme in contour and tempo. There is a very brief return of the *Allegretto* main theme, this time in D minor, followed by the *Andantino* main and appoggiatura themes and by another *Allegretto* main theme in C# minor.

The *Andantino* main theme returns next to begin the abbreviated return of the A section. This iteration of the theme resembles the version presented just before the first *Prestissimo* theme, setting up the expectation of the arrival of the *Prestissimo* theme after the fermata. This time, the *Prestissimo* theme travels through B major, C minor, D

Keyboard Works of J.S. Bach, C.P.E. Bach, and Mozart" (PhD diss., The City University of New York, 1978): 611–12.

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Matthew William Head, "Fantasy in the Instrumental Music of C.P.E. Bach," 47. This is possibly contradicted by Eugene Helm in "The 'Hamlet' Fantasy and the Literary Element in C.P.E. Bach's Music," 280, who describes this as unusual when discussing a different fantasy. Nancy Barnes Hager analyzes only this more-straightforward section of the fantasy in "Rhythm and Voice-leading as a Facet of Style:

**Keyboard Works of L.S. Bach, C.P.E. Bach, and Mozort" (PhD disc. The City University of Nany York)

minor, and E minor before landing on F minor for the return of the *Andantino* main and appoggiatura themes that end the piece in C major.

An outline of the formal sections of the piece is shown below in Example 5.6.³⁹ The A section contains four iterations of the *Andantino* main theme with other material in between, the *Prestissimo* and Improvisational themes. The middle section of the fantasy introduces two new themes: the *Allegretto* main and the *Andantino* appoggiatura, a variation on the original theme. These two alternate for the duration of the B section. The *Allegretto* theme clearly dominates, with the first iteration lasting for over a page, and the appoggiatura theme is used for transitions. The return of A is abbreviated and contains elements of both the A and B sections. It begins not with an iteration of the *Andantino* main theme that resembles the opening of the piece, but rather with a variant of its second statement, which leads smoothly into the *Prestissimo* theme. The *Andantino* that ends the fantasy is a combination of the A section's original version and the B section's version with appoggiaturas. Because the *Andantino* material returns between each occurrence of new material, it functions similarly to a refrain in a rondo.

³⁹ The rehearsal numbers in Example 5.6 correspond to those in the Appendix.

A section:	Reh. 1	2	3	4	5	6
Theme:	a <i>And</i> . main	a <i>And</i> . main	b Prest. A	a nd. main	c Improv.	a <i>And</i> . main
Key:	C – G	G	b♭ - g	g	a♭ - b	В
B section:	7	8	9	1	0	11
Theme:	d Allegr. main	a' And. appog.	d <i>Allegr</i> . main		a'' ain/appog.	d <i>Allegr</i> . main
Key:	e – C	ab - d	d	c ·	– c#	c# – f#
A' section:	12	13	14		15	
Theme:	a <i>And</i> . main	b Prest.	a'' And. main/app	og.	a <i>And</i> . main	
Key:	g - b	B-f	f-d		C/c	

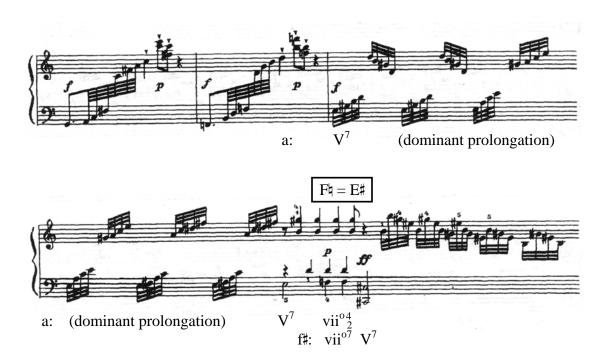
Example 5.6 C.P.E. Bach, Fantasy in C major, Wq 59/6, formal structure

2. The A section

The opening theme moves from C major to its dominant, G major, and has minimal chromaticism, mostly in the form of secondary dominants and applied leading tones. The second iteration of the *Andantino* main theme starts where the first left off, in G major, but uses enharmonic modulations to move to remote keys. I will begin by discussing the section from this G major through the *Prestissimo* and the short return of the *Andantino* main theme in G minor.

After only two measures of G major, a tonicization of A minor (ii) begins.

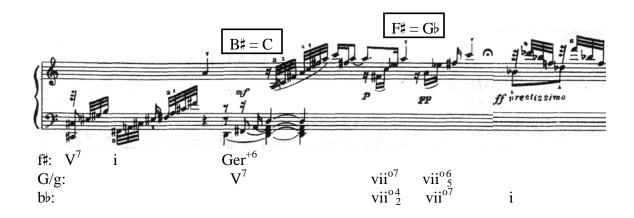
Although A minor never actually appears in root position, it is anticipated by its cadential six-four and dominant seventh chords. Then, there is a shift from A minor to F# minor, accomplished via the reinterpretation of a diminished-seventh chord, shown below in Example 5.7. The vii^{o4}₂ in A minor becomes vii^{o7} in F# minor through the enharmonic reinterpretation of F# as E#. Besides the connection through this diminished-seventh chord, F# minor is also related to A minor as the borrowed vi chord from A major.



Example 5.7 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, second *Andantino* main theme, enharmonic modulation after rehearsal 2

The modulation from F# minor to Bb minor takes two enharmonic reinterpretations, along with an ambiguous implication of G minor, as shown below in Example 5.8. First, the German augmented-sixth chord in F# minor, build on D, might be

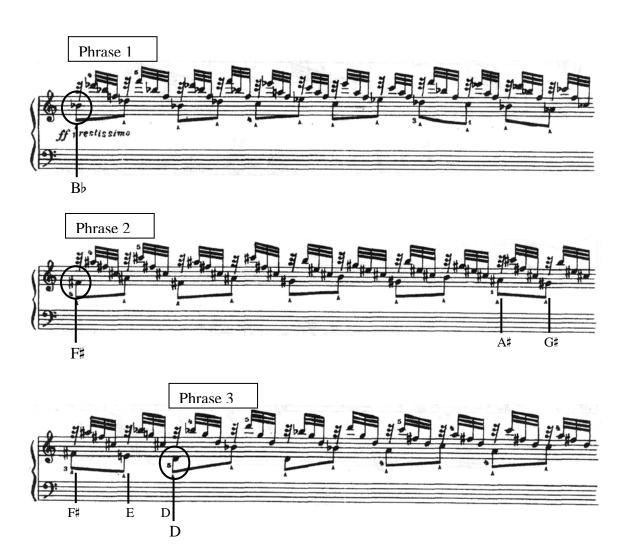
reinterpreted as the dominant seventh of G; a diminished-seventh chord on F# further suggests that G minor will arrive. Instead, however, this diminished-seventh chord is reinterpreted to become vii^{o7} of the jarring Bb minor that begins the *Prestissimo* section.



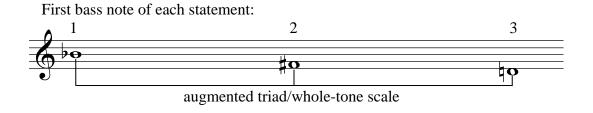
Example 5.8 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, two enharmonic modulations before the *Prestissimo* theme

After the first phrase of the *Prestissimo* in Bb minor, the diminished-seventh of VI sparks a modulation to VI, F# major. The subsequent move to G minor starts with a similar pattern; there is, again, descending passing motion in the bass supporting a diminished-seventh, but this time it is reinterpreted as vii^{o6}₃/V in G minor. It is at this very moment, when D arrives in the bass, that equal divisions of the space between Bb/A# and D are completed on both the large and small scales, as shown in Example 5.9 and summarized in Example 5.10. The *Prestissimo* consists of four statements of a six-beat pattern, and the beginning pitches of the first three groups are Bb, F#, and D. These emphasized bass notes spell an augmented triad, a purely chromatic phenomenon. More locally, the bass line starting two beats before the arrival on D reads A#, G#, F#, E, and D,

part of the whole-tone scale, another indicator of pure chromaticism. After this chromaticism and the surprising return of G minor, the rest of the *Prestissimo* section is diatonically straightforward, moving to the submediant Eb major and back to G minor.



Example 5.9 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, entrances of the first three phrases of the *Prestissimo* theme



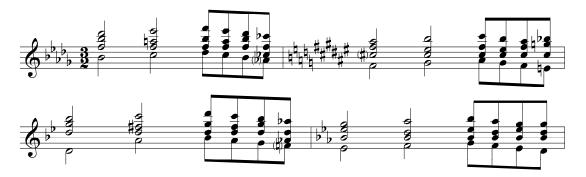
Local bass line leading to arrival on D:

whole-tone scale

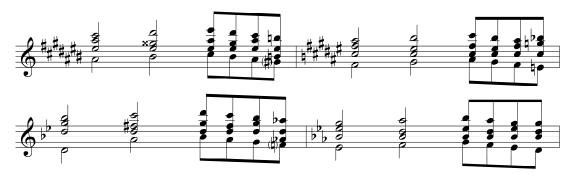
Example 5.10 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, summary of the first three phrases of the *Prestissimo* theme

The chromatic scales outlined by these entrances are instantiations of the enharmonic paradox examined in Chapter 1. The diatonic relationship between F# major and Bb minor can be reflected by spelling them as either A# and F# or Bb and Gb. Spelling them as A# and F# and using diatonic intervals in the bass leads to an enharmonic clash between A# and Bb when G minor arrives. Starting the passage with Gb and Bb and maintaining diatonic intervals in the bass, on the other hand, leads the music into Abb minor instead of G minor and still retains an enharmonic ambiguity regarding pitch-class 10. These two options, preceded by a rhythmic reduction using the spelling from the score, are shown below in Example 5.11.

From score: Enharmonic clash of A# and Bb. Diatonic relationship of Bb and F# not reflected.



With A# and F# pair: Destination key of G minor correct. Enharmonic clash of A# and Bb.



With Bb and Gb pair: Destination key notationally awkward, Abb. Enharmonic clash of Bb and Cbb.



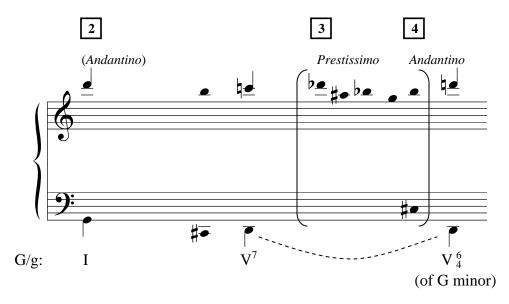
Example 5.11 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, rhythmic reduction and three possible spellings of the enharmonically paradoxical *Prestissimo* theme

Pitch-classes 6 and 10, thus, have multiple identities through this section. Spelled as Bb, pitch-class 10 can be diatonically related to the G minor that precedes and follows its entrance in the *Prestissimo* section. Spelled as A#, however, pitch-class 10 is diatonically related to F# minor, the last key with a strong tonic arrival before the *Prestissimo*, and F# major, the second tonicized key of the section. Pitch-class 6 is diatonically related to the A minor that precedes it (as F#) and leads downward diatonically (part of F#–E–D in the bass) to the arrival on D, but it is also the root of the Gb major supporting the Bb that is held as a common tone when G minor returns.

What are the sources of this enharmonic paradox? Several enharmonic pivot chords lead to these remote modulations, to be sure. Additionally, mixture and unexpected arrivals of parallel keys pervade the passage and play a role in the enharmonic issues. First, after a tonicization of A minor, F# minor arrives, which can be related to A as the borrowed vi from A major. Next, the surprising Bb minor that launches the *Prestissimo* section is the parallel minor of Bb major, which would have been diatonically related to the previous G minor as its mediant. More broadly, the diatonic goal of the section can be interpreted as moving from G major to G minor, or prolonging the dominant G major-minor. Notes from G major-minor are consistently emphasized in this passage through parameters such as register, dynamics, and duration. Example 5.12 below shows the emphasized pitches, in the register in which they appear in the score, and how they might point to an overall G major-minor harmony.⁴⁰

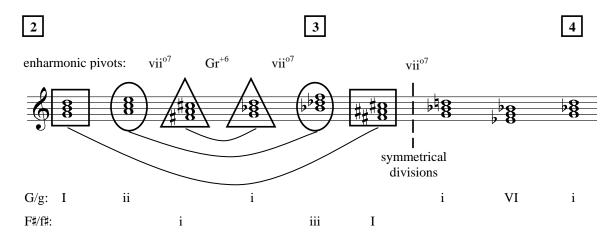
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⁴⁰ David Ferris claims that Bach often uses good voice-leading connection to bridge the gap in harmonic disruptions, in "C.P.E. Bach and the Art of Strange Modulation," 78. Figures of this type are *not* intended to show prolongations of a Schenkerian nature, but are merely summaries of pitches emphasized by register, dynamics, or other factors along with a bass showing locally tonicized key areas.



Example 5.12 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, emphasized pitches and harmonic outline from the second through the third *Andantino* main themes

An examination of the tonicized keys from the *Andantino* main theme in G major through the *Prestissimo* and the subsequent return of the *Andantino* in G minor also reveals a symmetrical web of semitonal relationships, demonstrated in Example 5.13. The lines connecting chords enclosed by the same shape indicate local keys whose tonic triad members are separated by semitone.



Example 5.13 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, semitone relations in the second through third *Andantino* main theme

As shown above in Example 5.13, semitone relations are prevalent in this harmonically adventurous section. All of the local tonics can also be related back to two semitone-related major-minor keys, G and F#. The tonicized keys that are foreign to the controlling G major-minor can all be encompassed by an F# major-minor complex, a semitone below. The enharmonic paradox itself deals in large part with pitch-class 10, which must serve as the third in both G minor and F# major; thus, the identity of a pitch as part of a major or minor scale led to enharmonic dualism. This is a twist on mode mixture—instead of raising or lowering the third to distinguish major and minor, the third is held while the root and fifth sink by semitone, as in the SLIDE relation from neo-Riemannian theory.⁴¹

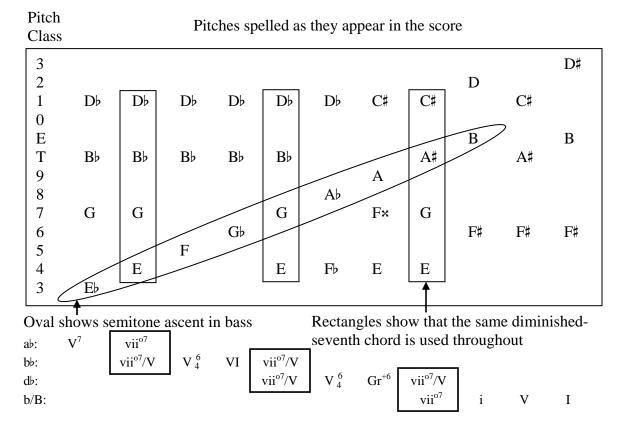
The subsequent theme, the Improvisational theme (shown below in Example 5.14) is followed by the last *Andantino* theme that ends the A section. This segment continues the emphasis on semitones. In fact, the key that is tonicized first is Ab minor, which is a semitone higher than the G minor that closed the preceding section. The transition is made by keeping the G as a common tone (along with an implied Bb), which becomes the leading tone (and part of the V_3^4) in Ab minor. The Improvisational theme ultimately ends in B minor via a modulation through ascending semitones in the bass and three reinterpretations of diminished-seventh chords. Next, the mode changes to B major to end the A section. The diagram in Example 5.15 shows the pitch content of this passage, using smooth voice-leading that does not necessarily reflect the voicings or registers. The spelling from the score is retained in Example 5.15.

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⁴¹ As defined in David Lewin, *Generalized Musical Intervals and Transformations* (New Haven: Yale University Press, 1987): 178.

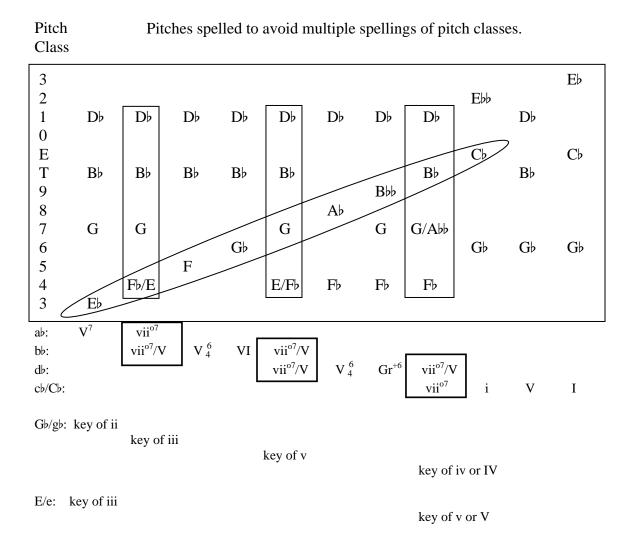


Example 5.14 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, Improvisational theme



Example 5.15 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, enharmonic modulations and paradoxes in the Improvisational theme and last *Andantino* main theme

Example 5.15 reveals several instances of the same pitch classes being spelled in multiple ways across the passage, including pitch-classes 1, 3, 4, 6, 7, and 10. The following diagram in Example 5.16 changes the spelling of some pitches to better reflect the functions of the harmonies and to avoid multiple spellings of pitch classes as much as possible. In this respelling, only pitches involved in the reinterpreted diminished-seventh chords have multiple spellings of a pitch class, specifically pitch-classes 4 and 7, making this the smoothest spelling possible for the passage.

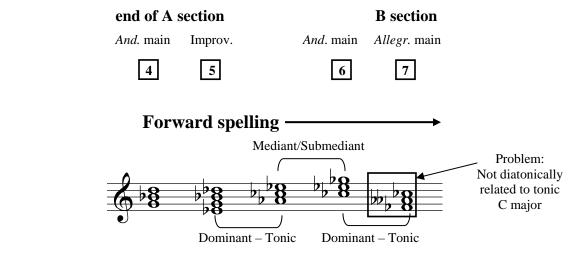


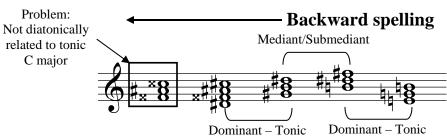
Example 5.16 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, enharmonic respellings minimized in the Improvisational and last *Andantino* main themes

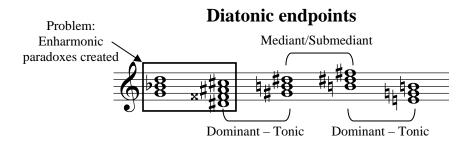
As Example 5.16 demonstrates, in order for the cycle to proceed with minimal enharmonic respelling, the passage must end in Cb major instead of B major. This also provides a diatonic mediant or submediant relationship between the arrival key and the Ab minor that began the section. A problem arises with this spelling, however, when the Allegretto main theme that begins the B section enters. The key that ends the A section is the dominant of the B section's opening key, but to reflect this dominant relationship with the above spelling, the new key would need to be spelled as Fb minor. This spelling is shown in Example 5.17 a). At this important moment in the form of the piece, an E minor spelling makes more sense, because it is closely related to the tonic C major. Therefore, the Cb major actually needs to be spelled as in the score, B major, to reflect the diatonic connection between the two sections. If the entire diagram is reworked backwards from the E minor, using B major and mostly sharps instead of flats, the respelling of the beginning Ab minor as G# minor necessitates a spelling of F× minor in the preceding *Andantino* main section. ⁴² This backward spelling is shown in Example 5.17 b). If both endpoints are spelled to relate diatonically to the tonic C, and the intervening diatonic relationships are maintained in the spelling, an enharmonic paradox arises. Example 5.17 c) shows the paradox at the transition from the G minor of the previous section. Whichever spelling is used to attempt to capture the diatonic relationships in the sections, enharmonic problems occur with the preceding or following music, as shown in Example 5.17 below.

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⁴² Since G, Bb, and Eb are common pitches between the keys of G minor and Ab minor, there would be an enharmonic paradox created when G \sharp minor arrives, respelling those pitches as F \times , A \sharp , and D \sharp .





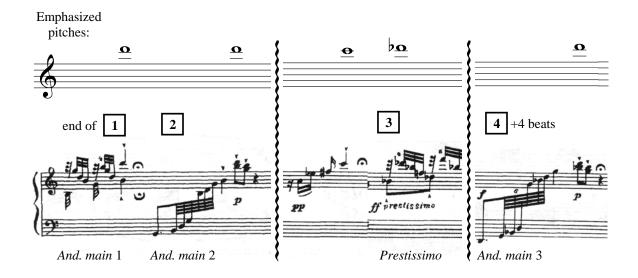


Example 5.17 C.P.E. Bach, Fantasy in C major, Wq 59/6, third *Andantino* main through end of A section, three possible spellings for the enharmonically paradoxical segment

Another interesting thing to note about this passage is that the tonicized keys can be related to Gb major-minor, an enharmonic respelling of the F# major-minor that competed with G major-minor in the previous section. This is shown at the bottom of Example 5.16 above. As in the preceding section, in which G major-minor served as

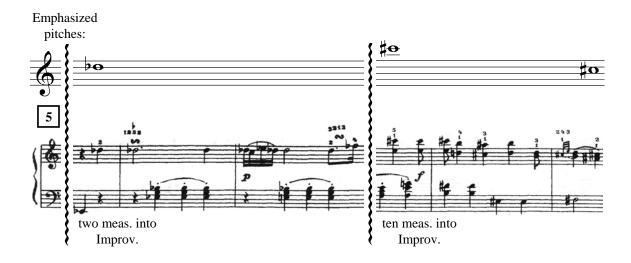
endpoints while F# major-minor controlled smaller tonicizations in between, here in the Improvisational theme, E major-minor controls the endpoints while Gb major-minor can explain the small tonicizations in the middle.

There are several semitone relationships at play in the A section; it began with the tonic C and ended with B, a semitone below, and the middle contained the dominant G as well as the semitones above and below, F# and Ab. Additionally, the emphasized melodic notes in the A section contain semitonal motion between D, Db/C#, and D#. Referring back to Example 5.12, which analyzes pitches emphasized by register and dynamics, the high note D both ended the first *Andantino* theme and began the second *Andantino*, but Db in the same register took over during the Bb minor *Prestissimo*. When the *Andantino* returns briefly, so does the high D in the original register.



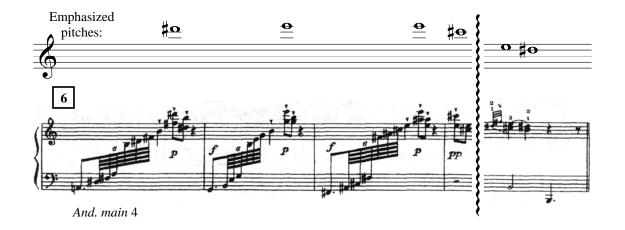
Example 5.18 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, emphasized pitches through the third *Andantino* main theme

During the harmonically unstable Improvisational theme, the note Db is held as a common tone while the bass moves by semitone. It is also the main melodic tone in each measure, although this particular Db is an octave below the high register from earlier in the A section. Eventually, Db is respelled as C# and moves back up to the high register to become part of a half cadence in B minor.



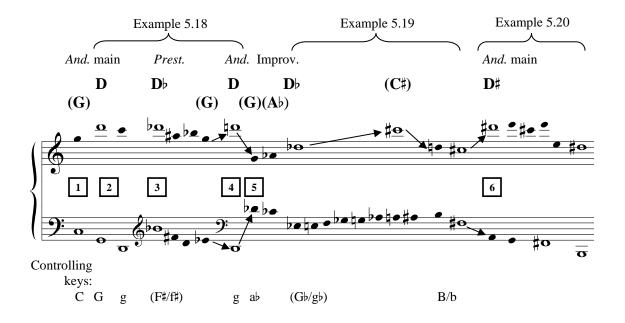
Example 5.19 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, emphasized pitches in the Improvisational theme

Finally, D# appears in the high register when the mode changes to B major, followed by E and C#, and then a motion from E to D# an octave lower ends the melody of the A section over a full cadence in B major.



Example 5.20 C.P.E. Bach, Fantasy in C major, Wq 59/6, A section, emphasized pitches in the last *Andantino* main theme

Example 5.21 below is a summary of the A section, incorporating the previous three examples, 5.18–5.20. Other emphasized pitches, which return later in the piece, are shown in parentheses.



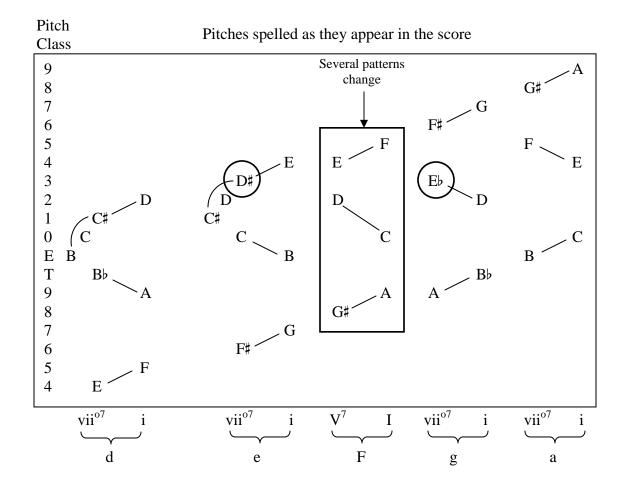
Example 5.21 C.P.E. Bach, Fantasy in C major, Wq 59/6, Summary of emphasized pitches and key areas in the A section

3. The B section

The first twenty-four measures of the B section, starting with the *Allegretto* main theme, are unambiguously in E minor. The first eight measures end with a half cadence, and the next eight end with a perfect authentic cadence. The third group of eight measures, like the first, ends with a half cadence, but the fourth group breaks the pattern by expanding to thirteen measures of chromatic wandering before cadencing on E minor. The first nine measures of the fourth phrase are shown in Example 5.22. Motion by semitone dominates the movement of voices in this phrase, and the tonicized harmonies move through D minor, E minor, F major, G minor, and A minor. The diagram below in Example 5.23 shows the movement of pitches in the fourth phrase of the B section. Pitch-class 3, which ended the high register of the A section, must be spelled two ways.



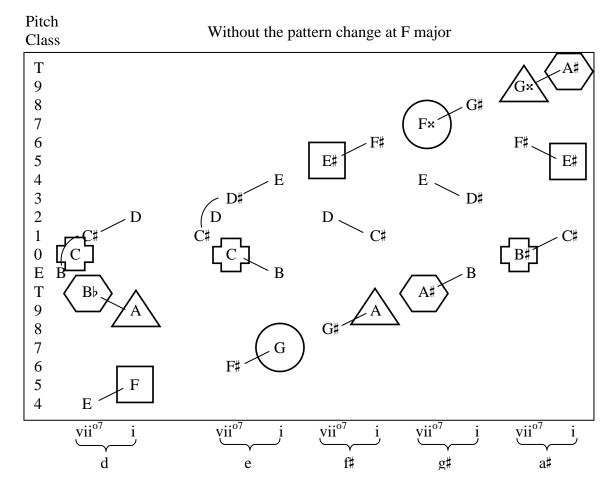
Example 5.22 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, chromatic passage in the fourth phrase of first *Allegretto* main theme



Example 5.23 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, enharmonic paradox and broken patterns in chromatic passage of fourth phrase of first *Allegretto* main theme

As shown above, the middle tonicized key breaks several patterns. The bass continually moves up by semitone except after the third pair of chords in F major, where it holds a common tone A, and the melody moves up by semitone everywhere except before this pair, where the E is held as a common tone. The middle voice resolves down by semitone between each pair of chords except the one in F major, where it moves by whole step. Finally, all the other dominant-functioning chords are vii^{o7} except the V⁷ in the third pair, and all the other tonicized keys are minor except this F major.

What are the reasons for all these pattern changes at this specific moment? One reason may be that, if the same pattern of semitones continued through all five pairs, the final tonicized key would be A# minor instead of A minor, which is not related to the prevailing E minor and creates several more enharmonic respellings. Pitch classes that have been enharmonically shifted are surrounded by similar shapes in the Example 5.24 below. Getting back to E minor from this point would require the pattern of minor keys ascending by whole step to continue for three more steps, through B# minor and C× minor to reach D× minor, the same pitch classes as the tonic E minor, but enharmonically spelled so as to create an enharmonic paradox. The pattern change at F major actually avoids more enharmonic respellings here.

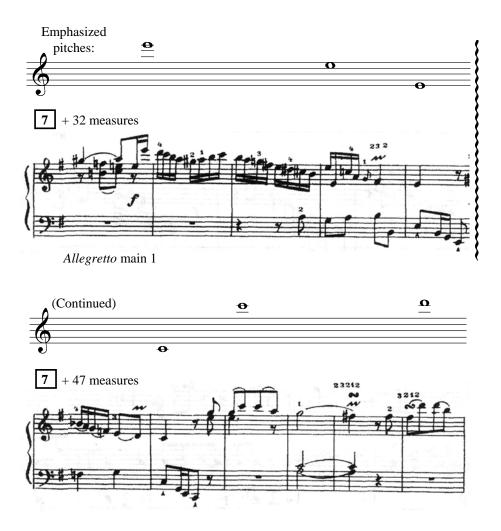


Example 5.24 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, first *Allegretto* main theme, hypothetical version of chromatic passage without broken pattern

Another reason for the pattern-changing insertion of F major may be to foreshadow the return of the tonic C major that happens at the end of this long *Allegretto* theme. All of the keys tonicized in this group, with the exception of G minor, belong to C major as ii, iii, IV, and vi. G minor is the minor dominant, which has had an important role in the piece thus far.

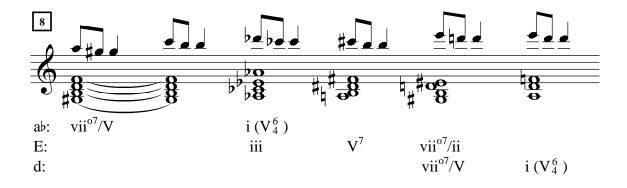
Immediately after the arrival of A minor, the last of the five pairs discussed above, the high register featured prominently in the piece returns with the note E, a half step higher than the D# that ended the A section (see Example 5.25). After a couple of

measures of sixteenth-note runs in A minor, it becomes the subdominant once more and leads to the final cadence in E minor. Another tonicization of A minor leads to the key of C major, with a perfect authentic cadence and the tonic note C in the high register immediately thereafter. Just three measures later, there is a high D in the upper register as part of what sounds like a tonicization of G; instead, however, the *Allegretto* melody is abruptly cut off before the expected resolution to G and moves to a chromatic passage with the introduction of the *Andantino* appoggiatura melody.



Example 5.25 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, emphasized pitches in first *Allegretto* main theme

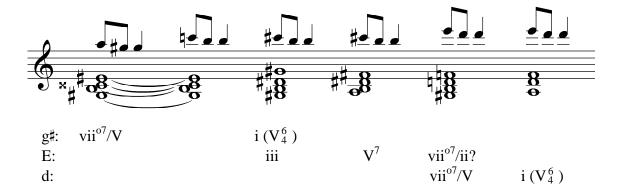
From the A section through this point in the B section, the main key areas have been C major, G major-minor (with F# major-minor), E major-minor (with Ab minor and B major preceding it as the mediant and dominant and Gb major-minor), and back to C major. The tonics of these keys outline the triad of the overall tonic, C-G-E-C. In the chromatic *Andantino* appoggiatura section, both G and E are expected but withheld. Example 5.26 shows a reduction of the harmonic progression in the section, along with the appoggiaturas in the melody, in the high register. This reduction is intended to show the smooth connections between the notes of the chords, so the first diminished-seventh chord and the Ab second-inversion chord are shown in root position. The Roman numerals are labeled as root position.



Example 5.26 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, reduction of the first *Andantino* appoggiatura theme

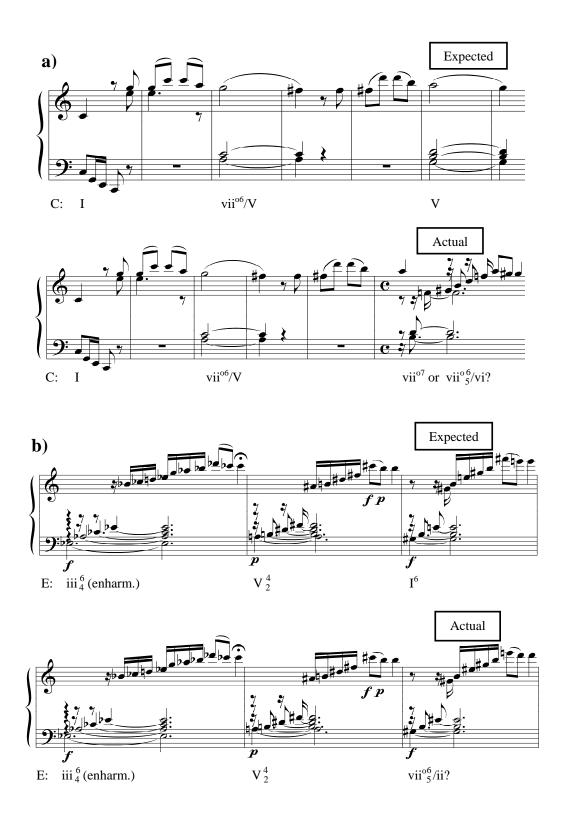
To analyze the musical, non-notational enharmonic changes in this segment, some respelling to reflect function is necessary. Below in Example 5.27, I have respelled the Ab minor as G# minor, because it is the only chord in the passage not spelled with sharps. The first chord is respelled as the true vii^{o7}/V in G# minor, and the E# of the penultimate

chord has been changed to $F\natural$ to show its function as part of the vii^{o7}/V in D minor. Now, an enharmonic clash occurs between the diminished-seventh chords, which contain the same pitch classes; the C× and E \sharp that begin the passage must become F \natural and D \natural as part of the upcoming D minor.



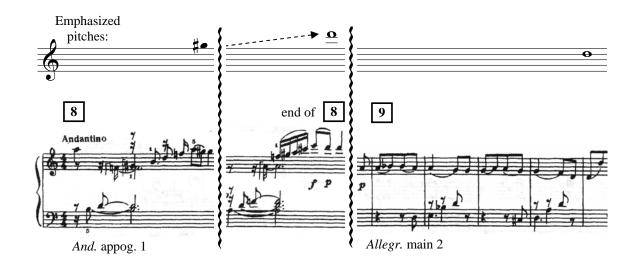
Example 5.27 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, respelling of first *Andantino* appoggiatura theme

As mentioned above, both G major and E major, the major forms of two of the most important keys in the piece so far, are expected in this section but do not arrive. The end of the first *Allegretto* section sets up the arrival of G major, but a G^{\sharp} diminished-seventh chord enters instead. The iii and V^7 in E major prepare the listener for I, but the arrival of the same diminished-seventh chord (enharmonically respelled) thwarts that expectation. Example 5.28 below illustrates these two deceptions: a) shows the expected resolution to G followed by the actual resolution, and b) shows the expected move to E and the actual resolution. Notice that in each case, the diminished-seventh chord changes the expected $\hat{1}$ into $\hat{1}$ but keeps $\hat{3}$ and $\hat{5}$, differing by just a semitone.



Example 5.28 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, first *Andantino* appoggiatura theme, two deceptions: a) withholding G major; b) withholding E major

The pitches involved in the appoggiaturas themselves are another notable aspect of this *Andantino* appoggiatura section. The note of resolution ascends from G# through D\(\pi\) in the same high register that has been featured throughout, passing through B (spelled once as C\(\pi\)) along the way. Thus, the high D that immediately preceded the *Andantino* appoggiatura section is regained at the end of it. D an octave lower appears in the subsequent brief return of the *Allegretto* theme in D minor.



Example 5.29 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, emphasized pitches from first Andantino appoggiatura to second Allegretto main theme

After four measures, the *Allegretto* theme in D minor trails off and becomes harmonically ambiguous leading into the return of the *Andantino* main/appoggiatura theme. Example 5.30 spans from the end of the second *Allegretto* theme in D minor through the *Andantino* themes to the beginning of the final *Allegretto* theme in C# minor.



Example 5.30 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, end of second *Allegretto* main, second *Andantino* appoggiatura, and beginning of last *Allegretto* main theme

The diminished-seventh chord immediately following the cadence in D minor can be interpreted not two, but three ways. It starts as vii^{o7}/iv in D minor, but when the C minor six-four chord enters in the next measure, sounding like a cadential six-four, the chord is reinterpreted as vii^{o7}/V in C minor. When the German augmented-sixth chord of

C minor is then reinterpreted as V^7 of Db minor in the following measure, the diminished-seventh sounds like vii^{o7} in Db minor in retrospect. There is an immediate shift in the score from Db minor spelling to that of $C\sharp$, the key of the next *Allegretto* passage. The enharmonic paradox created here will be discussed further below.

There is a three-measure tonicization of the submediant of C# minor, A major, but a deceptive cadence using the borrowed major VI from A minor supplants the expected A major chord. This diversion into the submediant is the key to understanding the enharmonic paradox of the section and also intensifies the semitonal relationship between keys. The A minor, from which the F major is borrowed, is the submediant of C minor, while the A major that was expected is the submediant of C# minor, directly clashing these two semitonally-related keys. Additionally, the submediants must both be spelled on a root A to reflect their parallel relationship, meaning that the two tonics must be C and C#, not C and Db. The German augmented-sixth of C minor, however, must be spelled with an Ab bass, and it is transformed into the dominant seventh of Db, not C#. Both C# and Db must exist at the same time, creating an enharmonic paradox. Finally, after the three-measure tonicization of the submediant, the vii⁰⁷ and V of C# minor return to lead into the next *Allegretto* theme, which ends the B section in that key.

The upper register of the second *Andantino* section is a response to the previous one; the high notes descend from Eb back down to the same G# that began the previous *Andantino*, passing through C#, B, and A. The upper lines of both *Andantino* appoggiatura sections are compared in Example 5.31.

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⁴³ Notably, this a pitch class that has played a significant role in the upper register throughout the piece thus far

Upper register, first Andantino appoggiatura theme of B section



Upper register, second Andantino main/appoggiatura theme of B section



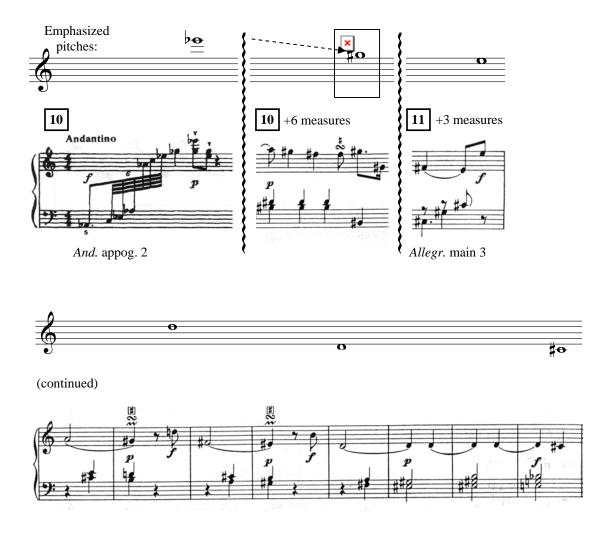
Example 5.31 C.P.E. Bach, Fantasy in C major, Wq 59/6, B section, comparison of upper lines of first and second *Andantino* appoggiatura themes

The final *Allegretto* theme in C# minor is shown in Example 5.32. After only three measures of the original material, the theme fragments and modulates to F# minor, using A major as a pivot chord. Another example of semitonal relationships occurs in the last two measures of this excerpt, when the pitches of the vii^{o7} in F# minor slide down by half step to become vii^{o6} in the upcoming G minor.



Example 5.32 C.P.E. Bach, Fantasy in C major, Wq 59/6, end of B section, last Allegretto main theme

The melody of the final *Allegretto* section regains the E from the beginning of the B section at the end of the first system, followed by D in the second measure of the second system, and C# at the very end, although they are not in the upper register. The following Example 5.33 shows the emphasized melodic notes from the second *Andantino* appoggiatura section and the last *Allegretto* that ends the B section.



Example 5.33 C.P.E. Bach, Fantasy in C major, Wq 59/6, emphasized pitches from second *Andantino* appoggiatura to the end of the B section

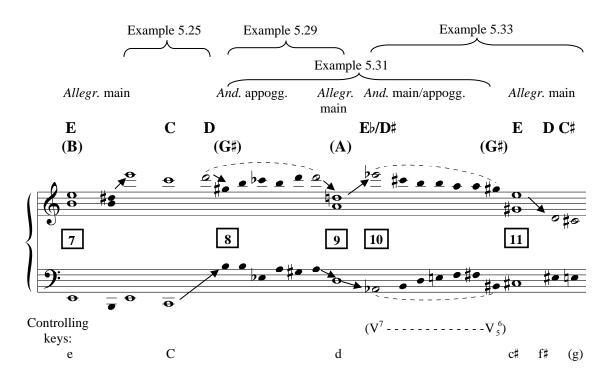
The main key areas represented in the B section are E minor to C major in the first *Allegretto*, D minor to C minor in the second, and C# minor to F# minor in the last. 44

The relationship of the first four of these to the tonic is clear; the section begins with the mediant falling back to tonic, followed by the supertonic and minor tonic. This is the first notable instance of the minor tonic, and the first two *Allegretto* parts of the B section

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 $^{^{44}}$ I call the keys of the *Allegretto* sections the primary keys because the *Andantino* sections are so harmonically ambiguous and unstable.

can, thus, be considered to be a C major-minor complex. C# minor, as pointed out above, is semitonally-related to the minor tonic, and F# minor is semitonally-related to the minor dominant, which is both the very next key that will begin the A' section and a major player in the piece thus far. F# major-minor was also pitted against G major-minor in the middle of the A section and continued to control key relations in the Improvisational theme. The half-step slide shown in Example 5.32 above is the first time a move by semitone has occurred without the enharmonic reinterpretation of a diminished-seventh or German augmented-sixth chord; this time, the semitones are boldly juxtaposed in adjacent chords. The main melodic and harmonic events of the B section are shown below in Example 5.34, with emphasis on the high register. Other emphasized pitches are shown in parentheses.



Example 5.34 C.P.E. Bach, Fantasy in C major, Wq 59/6, summary of emphasized pitches and key areas in the B section

4. The A' section

The abbreviated return of the A section opens with an *Andantino* theme beginning in G minor, specifically with the key's cadential six-four and dominant seventh chords. This reverses the chords' order as heard immediately before and after the *Prestissimo* theme of the first A section and at the enharmonic paradox in the middle of that *Prestissimo* (refer back to Example 1.3 in Chapter 1). Once again, there is no resolution to a complete G minor in root position, but only to the notes G and Bb for half a beat. Then, after only a measure and a half, a series of tonicizations and modulations begins. This entire *Andantino* passage is shown in Example 5.35. First comes a tonicization of the submediant, Eb major, followed by what sounds like a tonicization of the subdominant, C minor. Instead, this vii^{o6}/iv in G minor becomes the vii^{o6}/V in F minor, a diatonic pivot chord, followed by the V⁷ in F minor. The tonic resolution is to one lone pitch again, this time an F for only half a beat, followed by the pitches of the vii^{o7}. (The resolution to a strong F is postponed until later in the piece.) Next, this diminishedseventh chord is enharmonically reinterpreted as vii^{o7} of B minor, which is followed by V⁷ and i in that key. The three chords that follow are harmonically ambiguous; the chord built on G could be the German augmented-sixth chord in B or the V⁷ of C, and the diminished-seventh chords could be vii^{o7}/V in B or vii^{o7} in C. This is another example of dual harmonic control of a section by semitone-related keys. Also of note in this section is the high register, which moves from D in the first measure to C in the second, then to E in the third and fifth measures, and finally ending with high D.



Example 5.35 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, first Andantino main theme

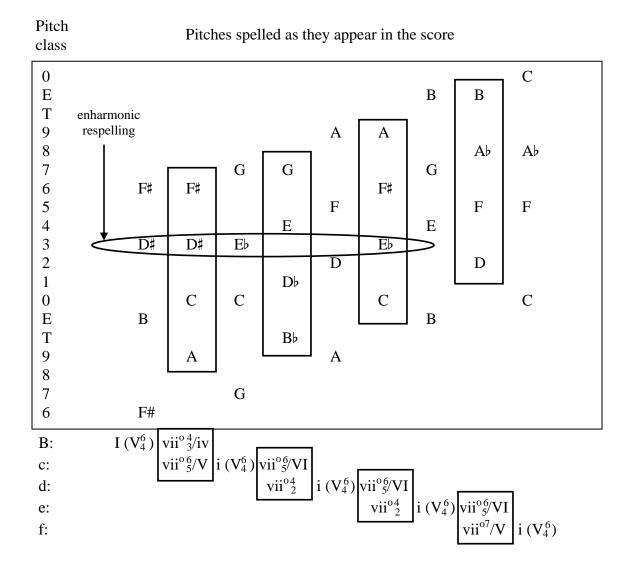
The opening of the *Prestissimo* theme that follows helps to resolve the harmonic ambiguity between B and C by starting with the key of B major. In the previous *Prestissimo* section, three of the four tonicized keys entered in root position, with the only exception being the surprising G minor that began with a six-four chord, with D in the bass. This time, however, all four phrases begin with six-four chords. The key areas

move through B major, C minor, D minor, and E minor. Finally, when the Andantino theme returns, a strong root-position tonic appears in the key that was avoided in the Andantino section at the beginning of the A' section, F minor. It is as if F minor was interrupted by the B minor part of the Andantino and the entire Prestissimo section, only to pick back up where it left off when the Andantino music returns. The diatonic mediant or submediant relationships of the first *Prestissimo* have now been supplanted by semitone or whole-tone modulations. The B minor that ended the Andantino becomes B major, providing lower semitone relationships with both the major and minor tonic. The minor tonic makes its second appearance of the piece in this section, and both D minor and E minor, significant keys in the B section which are closely related to the tonic C major, return as well. Perhaps this short *Prestissimo* section serves as a reminder of many of the main harmonies of the B section, including the B major that directly preceded it. The melodic notes at the entrances of the four phrases of the *Prestissimo* are D#, Eb, F, and G. Example 5.36 is a rhythmic reduction of the *Prestissimo* section, and Example 5.37 shows the movement of pitch classes during the section. The oval shows the enharmonic respelling that occurs between D# and Eb, and the rectangles show diminished-seventh pivot chords.

Enharmonic clash between between D# and Eb.



Example 5.36 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, rhythmic reduction of the enharmonically paradoxical *Prestissimo* theme

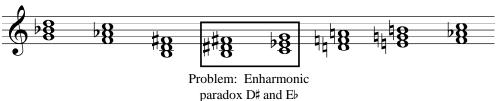


Example 5.37 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, *Prestissimo* theme, enharmonic paradoxes with spelling from the score

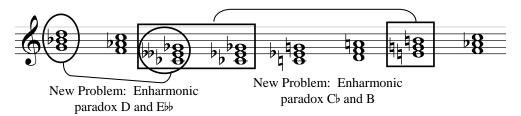
According to the spelling in the score, there is an enharmonic issue with pitchclass 3, which must be spelled as D# to accommodate B major but then as Eb immediately afterward when C minor enters. An enharmonic paradox on this specific pitch class might be avoided if the opening key is spelled as Cb major. This would require the B minor in the preceding section to be spelled as Cb minor to avoid enharmonic paradoxes on pitch-classes 6 and 11 between the parallel keys. New enharmonic paradoxes are created, however, with an Ebb that would clash enharmonically with the D in the preceding G minor and a Cb that would clash with the B in E minor. The spelling of F minor should be the same in both appearances to avoid more enharmonic paradoxes. The D#/Eb paradox might also be avoided if the keys following the B major were B# minor, C× minor, D× minor, and E# minor. For spelling consistency, the F minor from the first Andantino would have to be respelled as E# minor, as well, and G minor would be Fx minor. In this case, the music would end far afield of C major-minor. The strong arrivals on G minor and F minor, which are closely related to the minor tonic, would then be on unrelated keys, Fx minor and E# minor. In both cases, notationally cumbersome keys would be required. Both options are shown below in Example 5.38, preceded by the original spelling from the score.



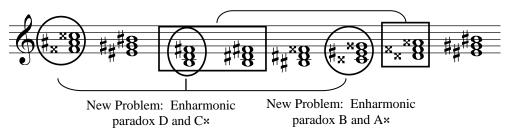
Diatonic relations to tonic C/c preserved



Paradox avoided by respelling as Eb



Paradox avoided by respelling as D#



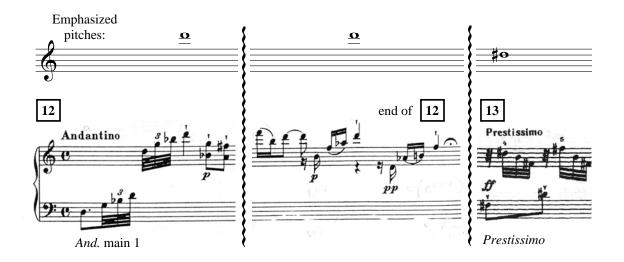
New Problem: Diatonic relationships to C/c not reflected

Example 5.38 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, first *Andantino* main, *Prestissimo*, and second *Andantino* main themes, three possible spellings for the enharmonically paradoxical segment

This enharmonic issue with pitch-class 3 has something in common with another enharmonic paradox encountered earlier in the A section. When G major-minor and F#

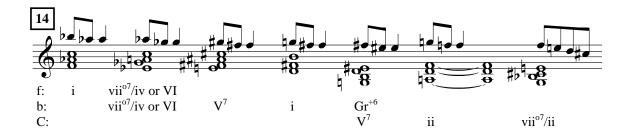
major-minor were vying for control during the A section's *Prestissimo* theme, there was an enharmonic paradox involving pitch-class 10, which was the major third of F‡, spelled A‡, and the minor third of G, spelled B♭; the spelling of the shared third of semitonally-related keys was in question. The same circumstance arises here in the return of the *Prestissimo*, but the key areas involved are B major and C minor. The spelling of the minor third of C minor, E♭, conflicts with the spelling of the same pitch class as the major third of B major, D‡. Additionally, as in the previous *Prestissimo*, the relationship between the keys is a shared third with the fifth and root sliding downward.

The main emphasized melodic notes so far in the A' section are represented below in Example 5.39. The opening *Andantino* centers mainly on the high D, and the *Prestissimo* begins with D# (which later becomes Eb when C minor arrives).



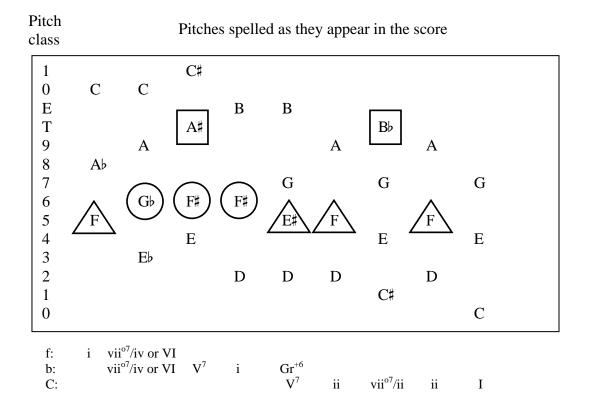
Example 5.39 C.P.E. Bach, Fantasy in C major, Wq 59/6, emphasized pitches from beginning of A' section to beginning of *Prestissimo*

The return of the *Andantino* material in F minor provides one of the only examples in the piece of a clear harmonic progression leading to a root-position tonic triad. Immediately afterward, however, come several harmonically ambiguous chords using the Andantino appoggiatura thematic material. This theme is often associated with remote modulations and surprising changes. An A diminished-seventh chord, which could be interpreted as vii^{o7}/iv in F minor, leads to an F# dominant seventh harmony and next to B minor. In retrospect, the diminished-seventh chord can also be heard as vii⁰⁷/iv in B minor, although it does not resolve as expected. What follows the B minor is its German augmented-sixth chord, spelled as such this time. This is the second time in a row that B minor has directly followed F minor in an Andantino section. Whether this chord is truly the German augmented-sixth in B minor, as before, is in question. This time, instead of resolving to the cadential six-four in B major, it moves after the fermata to a short passage in D minor, indicating that it was perhaps reinterpreted as a V⁷ in C major that gets interrupted by the ii chord. Example 5.40 shows the high register melody and a reduction of the chords from the last *Andantino* appoggiatura theme. The spelling is from the score, but the register and voicing of the chords has been compressed for ease of reading. The Roman numerals are in root position.



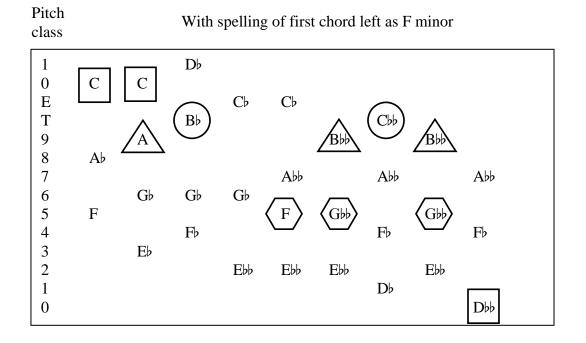
Example 5.40 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, reduction of the first *Andantino* appoggiatura theme

There are many enharmonic problems that arise in this passage, as is typical during the *Andantino* appoggiatura themes in the piece so far. Example 5.41 below traces each pitch class through the excerpt, including the subsequent return to tonic in the last *Andantino* main section, showing enharmonic respellings as they occur in the score.



Example 5.41 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, *Andantino* main/appoggiatura theme, enharmonic paradoxes with spelling from the score

Pitch-classes 5, 6, and 10 are spelled in multiple ways during this passage. The respelling of pitch-class 6 might be avoided by changing the B minor into Cb minor. The D minor, however, would then have to become Ebb minor, both creating notational difficulties and changing the ending tonic from C major into Dbb major. Likewise, changing the beginning F minor into E# minor would get rid of some enharmonic paradoxes but would not reflect a diatonic relationship with the home key of C majorminor. In both cases, while some enharmonic paradoxes would be solved by changing the beginning or ending key, new ones would replace them on pitch-classes 0, 5, 9, and 10. Both of these options are shown below in Example 5.42.

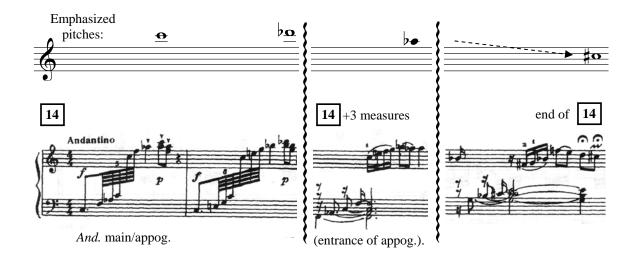


With spelling of first chord changed to E# minor

1 0 E T 9 8	B#	B#	C#	В	В	Â	Bb	Â		
7 6 5	€# >	F#	F#	F#	G (E#)	$\langle F \rangle$	G	$\langle F \rangle$	G	
4 3 2 1 0	_	D#	Е	D	D	D	E C#	D	Е	

Example 5.42 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, two possible respellings of the enharmonically paradoxical *Andantino* main/appoggiatura theme

During the F minor *Andantino* main section, the emphasized notes in the high register are C and Db. Interestingly, during the final *Andantino* appoggiatura section, the notes of resolution begin on Ab, the same pitch class as the G# that began the first *Andantino* appoggiatura passage in the B section and ended the following one (refer back to Example 5.31). This time, instead of the other high notes being above this pitch, the notes descend from Ab, reaching C#, as shown below in Example 5.43. This C# is an octave lower than the Db that preceded the *Andantino* appoggiatura section and is enharmonically respelled.



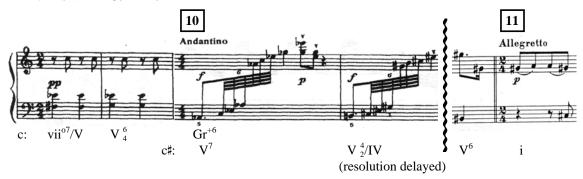
Example 5.43 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, emphasized pitches in the *Andantino* main/appoggiatura theme

The final *Andantino* section is clearly in the tonic C major, but the minor mode also returns briefly. The passage in question uses the same three chords as in the D minor *Allegretto* theme: a diminished-seventh with F# in the bass, a cadential six-four in C minor, and a German augmented-sixth built on Ab (refer back to Example 5.30). This time, instead of the Ab chord being reinterpreted as the dominant seventh chord in Db/C# major-minor, it resolves as an augmented-sixth chord to the cadential six-four in C minor. This is the second time that a chord which might be interpreted as either a dominant seventh or an augmented-sixth chord returns to the same register in the bass after a long stretch of music, only to be interpreted the opposite way. The first time involved the chord built on G before the return of the *Prestissimo* section, which resolved as the German augmented-sixth chord in B minor. When the same harmony returns during the final *Andantino* appoggiatura, it does not resolve directly as a dominant, but the key soon

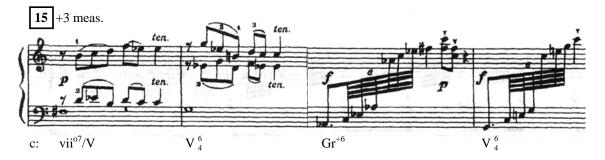
moves back to C major. These two examples, shown below in Example 5.44 a) and b), demonstrate that enharmonic reinterpretations may be analyzed as recurring on both the local level and the large scale.

a) Two resolutions of the Ab chord

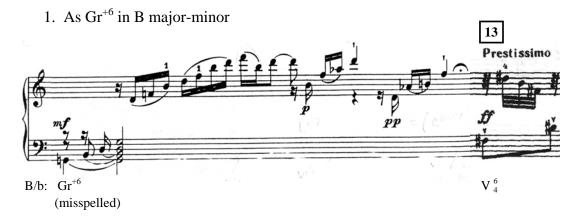
1. As V⁷ in C# minor



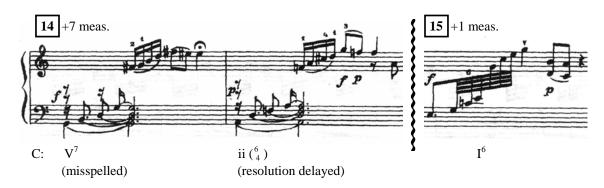
2. As Gr^{+6} in C major



b) Two resolutions of the G chord



2. As V⁷ in C major



Example 5.44 C.P.E. Bach, Fantasy in C major, Wq 59/6, large-scale enharmonic reinterpretations: a) Ab chord resolved as both V^7 and Gr^{+6} ; b) G chord resolved as Gr^{+6} and V^7

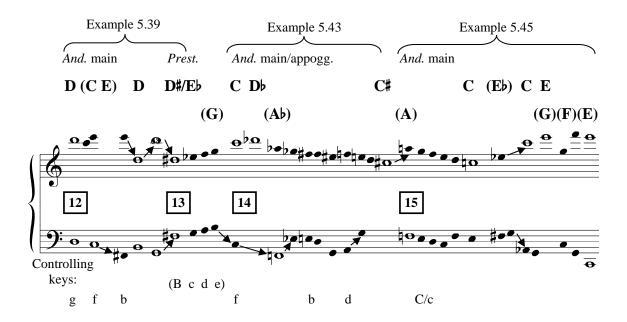
The main tonicized key areas of the A' section are G minor, F minor, B minor (with B major, C minor, D minor, and E minor appearing briefly in the *Prestissimo*), F minor and B minor again, D minor, and C major-minor. All of these except for B major and minor belong to the C major-minor complex, with the B keys related to tonic by semitone. Fewer remote keys are involved in the A' section, probably because a return to the tonic is imminent as the piece comes to a close.

The melody falls from A to C in the first few measures, much like the descent from Ab to C# at the end of the preceding *Andantino* main/appoggiatura section. Eb and C are drawn out through the *tenuto* in the next two measures, and then the high register returns with a C over the Ab augmented-sixth chord. Both high C and E immediately follow over the cadential six-four chord, but, by the end, only the E remains. Example 5.45 below shows the emphasized melodic notes of the final *Andantino* section.



Example 5.45 C.P.E. Bach, Fantasy in C major, Wq 59/6, A' section, emphasized pitches in final *Andantino* main theme

The main melodic notes and harmonies of the entire A' section are shown below in Example 5.46. Other important notes are shown in parentheses. The high register of the opening *Andantino* main section centers mainly on D, with G minor, F minor, and B minor beneath. The *Prestissimo* begins in B major with the melody down an octave on D#, which enharmonically changes to Eb before ascending to F and G. The return of *Andantino* main in the main/appoggiatura section brings back the upper register on C and Db over a strong F minor harmony. The always unstable *Andantino* appoggiatura descends from Ab to C#, moving in the opposite direction as the earlier appoggiatura themes in the piece. Next, almost as a diatonic answer, there is a descent from A to C in the same register when the tonic C major returns in the final *Andantino* main section. C, E, and Eb are emphasized melodic notes, pointing to both mode mixture and a competition between C and E, with the E in the high register finishing the fantasy.



Example 5.46 C.P.E. Bach, Fantasy in C major, Wq 59/6, summary of emphasized pitches and key areas in the A' section

5. Conclusion

Throughout the piece, there have been several enharmonic paradoxes, where pitch-classes have taken on multiple identities to reflect relationships with preceding and following material. In the A section, enharmonic paradoxes appear in the *Prestissimo* section and in the Improvisational theme. The B section's *Andantino* appoggiatura passages are characterized by unexpected key changes and enharmonic respellings, and one enharmonic problem arises in a short, chromatic passage during the opening *Allegretto*, as well. When the *Andantino* appoggiatura and *Prestissimo* passages return in the A' section, again they contain enharmonic paradoxes. In several of these cases, the problem occurs when attempting to have spellings that reflect all local diatonic relationships as well as diatonic relationships between keys at important formal moments and the tonic key of C major-minor. Thus, although these enharmonic modulations are chromatic in nature, the piece has diatonic features that would be overlooked by a completely chromatic analysis. On the other hand, the chromatic events and remote keys in the piece make a totally diatonic view questionable, if not impossible.

A broad, overarching harmonic picture of the fantasy can be revealed only through an examination of the thematic structure and form. The A section's primary theme is the *Andantino* main, which keeps coming back in short segments as a refrain throughout the rest of the piece, with the first and last statements in the tonic C major. The primacy of this theme is weakened by the B section's *Allegretto* main in E minor, because it constitutes the longest, most memorable, and most tonally stable passage of the piece. Both themes open their respective sections and then return multiple times within

them. There is a competition between the two for the distinction of being the main theme of the fantasy; simultaneously, there is also a struggle between the two primary keys involved, C major and E minor.

If the roles of C and E are traced through the main key areas of the piece, a competition between these two tonal centers is revealed that can help explain even the most remote keys reached. The A section contains keys that are closely related to the tonic C major-minor as I, V, and v, but there is also the more remote F‡ or G♭ major-minor and a move from A♭ minor to B major to end the section. All of these foreign keys are related by semitone to either the tonic major and minor, or the dominant major and minor. Additionally, all the keys in the A section can be thought of as part of a double-tonic complex between C major-minor and E major-minor, as shown in Example 5.47 below. As in the Beethoven analysis in Chapter 2 (see Example 2.17), "UST" and "LST" signify upper and lower semitones, this time in relation to both tonic and dominant.

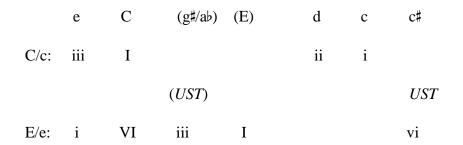
A section:

	C	G	g	(F#/f#)	ab (Gb/gb)	В
C/c:	I	V	v			V/iii
				(LST)	UST (LST)	LST
E/e:	VI			ii or V/V	iii ii or V/V	V

Example 5.47 C.P.E. Bach, Fantasy in C major, Wq 59/6, key relations in the A section

even before E minor is presented at the beginning of the B section. The tonic C major is weak in the A section, because it only has a few measures of control before moving on to other keys; by contrast, when E minor arrives, it retains control for the longest of any key area in the piece. Even by the end of the first *Allegretto* section, however, C major reasserts itself. After only a few measures, the *Andantino* appoggiatura section thwarts expectations by hinting at G# or Ab minor and E major (both keys related to E major), but by the end, the music is led into D minor (closely related to C major) for the second *Allegretto* theme. The world of C major-minor is again short-lived as its German augmented-sixth chord is transformed into the dominant seventh of C# minor, another close relative of E major, for the *Allegretto* that ends the B section. Throughout this section, E major-minor and C major-minor have a tug-of-war for harmonic power, with E major-minor in the lead. The double-tonic complex has continued in the B section, shown below in Example 5.48.

B section:



Example 5.48 C.P.E. Bach, Fantasy in C major, Wq 59/6, key relations in the B section

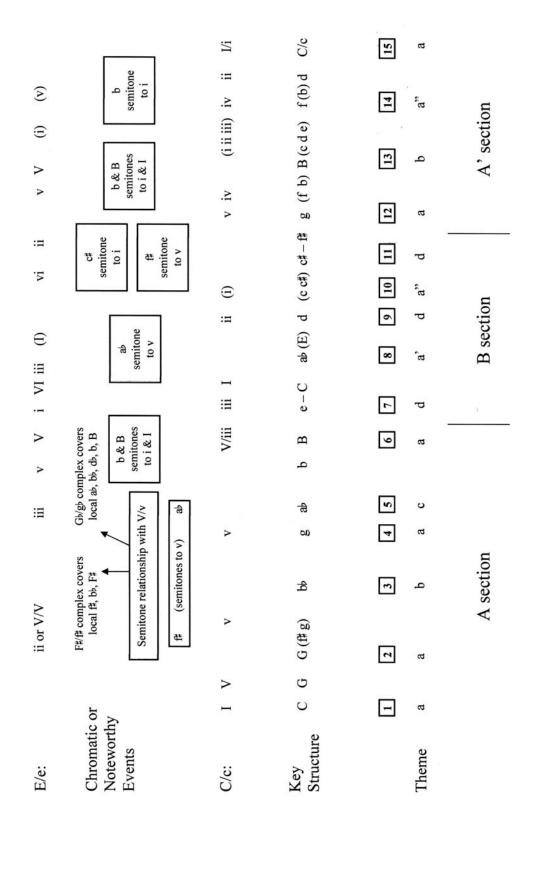
The A' section features mostly key areas that are closely related to C major or minor as the tonic regains control before the fantasy comes to a close. The only tonicized keys not related to the tonic are B major and B minor, both of which can be traced to E major-minor, as shown below in Example 5.49. Interestingly, just as in the B section, almost every key area is minor in quality in the A' section, with the minor mode even making a brief appearance during the conclusion of the piece in the tonic. That the minor mode appears so much during the piece also weakens the main theme and tonic, which are in the major mode.

A' section:

	g	f	b	(B c d e)	f	b	d	C	c	C
C/c:	v	iv		i ii iii	iv		ii	I	i	I
			LST	LST		LST				
E/e:			v	V i		v		VI		VI

Example 5.49 C.P.E. Bach, Fantasy in C major, Wq 59/6, key relations in the A' section

A summary of the entire piece is below in Example 5.50.



Example 5.50 C.P.E. Bach, Fantasy in C major, Wq 59/6, summary diagram

As can be seen from the above, nearly all of the remote keys tonicized in the piece are semitonally-related to the major and minor tonic and dominant, an obviously chromatic relationship. Viewing them through the lens of the C and E double-tonic complex, however, allows a diatonic explanation for these chromatic phenomena. While C major and E minor are diatonically related, their parallel counterparts, C minor and E major, are not. Having C and E as major-minor complexes, which are each diatonic according to Weber, Schenker, and Schoenberg, opens the possibility for chromaticism and more remote key relations.

Further justification for reading this piece as a double-tonic complex comes from the emphasized melodic pitches, especially in the high register. The boundary points of these pitches are C and E, with D appearing most often and with pitch-class 1 spelled as either C# or Db and pitch-class 3 as either D# or Eb. Examples 5.21, 5.34, and 5.46 show this upper line. In the A section, the line moves mainly between D, Db/C#, and D#. The two boundary points, E and C, emerge in the B section, with D quickly returning in the upper register. D is also the goal of the ascent from G# in the first *Andantino* appoggiatura section and remains during the second *Allegretto*. Eb descends to G# in the next *Andantino* appoggiatura, and E returns before descending to D and C# to end the section. The *Andantino* main that begins the A' section emphasizes D, E, C, and D in the high register. The following *Prestissimo* starts with an enharmonic problem between D# and Eb, and the strong F minor arrival supports high C and Db. The next *Andantino*

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⁴⁵ See Patrick McCreless, "An Evolutionary Perspective on Nineteenth-Century Semitonal Relations," in *The Second Practice of Nineteenth-Century Tonality* ed. William Kinderman and Harald Krebs (Lincoln: University of Nebraska Press, 1996): 87–113.

⁴⁶ Refer to the discussion of mixture in Chapter 2.

appoggiatura section descends to fermatas on D and C \sharp . Both high E and high C are present during the final section of the piece, but E is in the high register on the very last chord. This final E not only weakens the cadence by not providing $\hat{1}$ in the top voice, but it also serves as a reminder of a pitch-class that has been emphasized melodically, thematically, and harmonically throughout the fantasy.

In conclusion, analyzing the enharmonicism of this piece brings to light many conflicts between chromatic phenomena and diatonic relationships. Although enharmonic modulations and paradoxes abound and semitonal key relations are prevalent throughout, diatonic grammar is present on the surface, deepest levels, and in between. Many of these diatonic relationships become evident when viewing the piece as a competition between C major-minor and E major-minor, though the presence of such a double-tonic complex indicates a loss of diatonic monotonality. There are thematic, formal, harmonic, and melodic aspects of the piece that support this reading as a doubletonic complex. The diatonic competition that is readily evident between the keys of the two primary themes, C major and E minor, is expanded to include relationships with the parallels of these two keys in subtle ways that can be uncovered by an extensive analysis of key relations and enharmonicism. C.P.E. Bach's Fantasy in C major is a perfect example of the seemingly contradictory meshing of diatonicism and chromaticism that is the primary concern of this dissertation. The work calls for an analysis blending the two approaches in order to be best understood.

Chapter 6: Conclusion

The four pieces analyzed in this dissertation, despite being from vastly different time periods and genres, nevertheless have many harmonic similarities. Examining how enharmonic paradoxes arise and fit into the narratives of each piece reveals specific characteristics that the pieces have in common.

Discovering these common harmonic features leads to further questions. Do more enharmonic paradoxes exist in pieces with these specific characteristics, or is it a coincidence that the individual works chosen for study in this dissertation happen to share traits in common? Is there a systematic way of looking at enharmonic paradoxes that will reveal that certain types of modulations or key relations have a higher probability of producing enharmonic ambiguities? A study of this nature might lead to a more general theory of enharmonicism.

If there are certain key relationships that lead more readily to enharmonic paradoxes, then finding pieces for analysis would be made easier. Further analyses of music of an even wider range than is represented in this dissertation would test the limits of the general theory.

1. Similarities

op. 57 (the "Appassionata") occurs during a cycle of major thirds in the development section. After much mode mixture between Ab major and minor in the exposition, there is a complete shift to the minor mode by the end of the section, a chromatic mediant relationship with the tonic. The E major that follows at the beginning of the development is then enharmonically respelled (for notational convenience only) as a submediant of Ab minor. The modal shift to E or Fb minor that follows, however, causes true enharmonic paradoxes, because Cb and Fb are part of the previous Ab minor harmony, while G is part of the Ab major-minor and the upcoming C minor and major. The resulting Fb, G, and Cb do not compose a triadic spelling. The second paradox arises because of a need to move from Db major in the middle of the development to C major by the end, a move between semitone-related keys. It is impossible to reflect the diatonic relationships between all local keys in the spelling at the same time as leaving both Db and C major related to the overall tonic.

The pitches of the triad of the first paradox, E minor, are a semitone below those of the tonic triad, F minor, and the pitches in the second paradox, B minor, are a semitone below the minor dominant. Throughout the movement, there is an emphasis on the upper semitone to the tonic, the Neapolitan Gb major, and the upper semitone to the dominant, Db major. The prevalence of semitone relations explains the narrative purpose of the specific pitches of the enharmonic paradoxes: to balance the frequent appearance of upper semitone relationships. Furthermore, the first paradox happened as a result of

mode mixture, and all three notes of the tonic triad, F, Ab, and C are presented as local tonics in both major and minor forms in important places in the piece. F major and minor are mixed in the recapitulation, Ab major and minor are mixed in the exposition and first half of the development, and C minor appears as a surprise in the development before the C major retransition. The Ab major-minor and C major-minor complexes lead to enharmonic paradoxes and remote modulations, and they threaten the primacy of the tonic key, F major-minor.

In Fiona Apple's "Extraordinary Machine," the enharmonic paradoxes spring from a remote modulation from C# major to A minor and back, a chromatic mediant relationship. The Bb and C chords at the end of the A minor bridge become A# and B# retrospectively when C# major returns for another chorus. All of the notes in the scale of the bridge, A minor, are a semitone below those in the scale of C# major, and pitches from A minor (A, B, and especially E) are consistently borrowed from C# minor in the other sections. Semitone relationships are thematized in other ways in the song, as well, including a general sinking of the pitch that is coextensive with the lyrics becoming more intense. The spreading of pitches from A minor into the rest of the song weakens the tonic C# major-minor.

The second movement of Poulenc's Piano Concerto in Eb major has several enharmonic paradoxes, most of which occur because of surprise shifts in mode. The first paradox, in the A section, happens between the thirds of G major and Ab minor, B and Cb. G major comes as a surprise after the anticipation of G minor, creating a modulation by chromatic mediant, and the Ab minor immediately precedes Ab major, the diatonic

subdominant. If not for these two cases of mode mixture, there would have been no enharmonic paradox. Similarly, C major arrives at marked moments in the B section, shattering the expectation of C minor both times. The note E, the very one responsible for the shift to the major mode, becomes the source of an enharmonic paradox in both cases. There is also an enharmonic paradox created by the third of E minor in the B section, following several measures indicating E major. Finally, in the A' section, mixture with the minor mode in the tonic key of Eb major leads to a paradox between Gb as the minor third and F‡ as the leading tone to the major third. The two most marked foreign keys in the movement are G major and C major, both related to the tonic by chromatic mediant, and these keys weaken the other tonic-subdominant pair, Eb major and Ab major.

C.P.E. Bach's Fantasy in C major, Wq 59/6, has enharmonic paradoxes too numerous to detail here, but many of them spring from reinterpretations of diminished-seventh and German augmented-sixth chords. These kinds of enharmonic modulations are frequently used to move by semitone and minor third. Throughout the piece, there are local modulations by semitone, especially to keys semitonally-related to the tonic and dominant major and minor. G major-minor is immediately adjacent to Ab minor (at the beginning of the Improvisational theme) locally, and F# major-minor and Gb major-minor on a larger scale. B major and minor appear in the A and A' sections and C# minor in the B section, making upper and lower semitones to the tonic C major-minor. On an even larger scale, there is a competition between C major-minor and E major-minor, which is evident in the range of the emphasized high notes and the competition between the

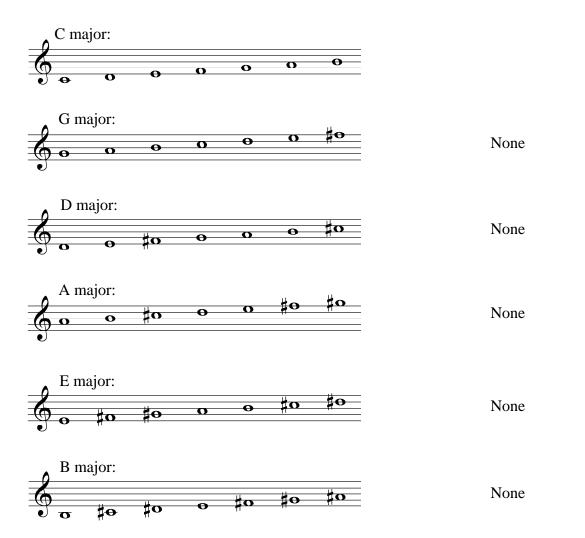
Andantino and *Allegretto* main themes. Although C major and E minor are diatonically related, the parallel keys from mode mixture are in chromatic mediant relationships.

A direct comparison of the four pieces shows that, in addition to containing enharmonic paradoxes, all four thematize key relationships by chromatic mediant and semitone—chromatic relationships. Additionally, all four feature frequent mode mixture, a debatably diatonic phenomenon. These pieces may have such similarities by chance, but it is possible that, instead, there may be a pattern emerging surrounding enharmonic paradoxes.

2. Enharmonic Paradoxes and Key Relationships

To explore the likelihood of coming across enharmonic paradoxes when given a key relation, I will now compare the scales of major and minor keys, pointing out any enharmonic pitch classes shared between key pairs. I will begin with a comparison of C major with the sharp major keys, starting with the most closely related and proceeding around the circle of fifths. In keys with up to five sharps, there are no enharmonic paradoxes created, as shown below in Example 6.1.

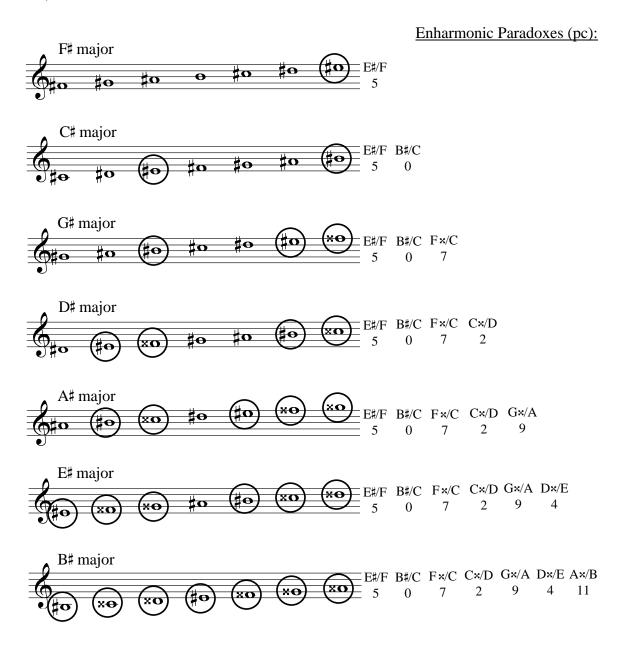
Enharmonic Paradoxes:



Example 6.1 Enharmonic paradoxes between C major and keys with up to five additional sharps

The first enharmonic paradoxes start to appear with six additional sharps in the key signature compared to the original C major. In F# major, pitch-class 5 is spelled as E#, as opposed to F in C major. Each additional sharp that is added to the key signature from this point forward creates a new enharmonic paradox with the scale of C major. Because E# will remain in the key signatures as other sharps are added, it will continue to

be paradoxical in C# major, G# major, D# major, A# major, E# major, and B# major, as shown below in Example 6.2. At B# major, all seven notes of the scale are enharmonically paradoxical to those in C major. So far, the major keys that create enharmonic paradoxes with the major tonic, in ascending order, are #IV, #I, #V, #II, #VI, #III, and #VII.

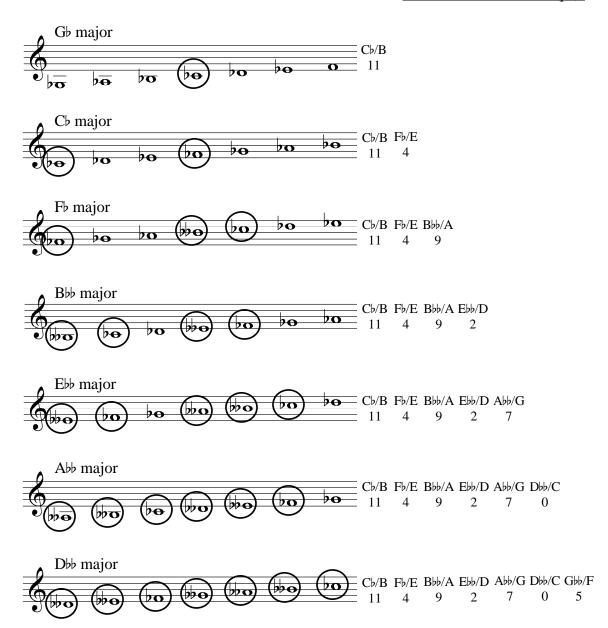


Example 6.2 Enharmonic paradoxes between C major and keys with six to twelve additional sharps

Because of the order of sharps, each new enharmonically paradoxical pitch class is the leading tone of the next key. Due to the fifth relationships between adjacent keys, the E# paradox occurs $\hat{7}$ of F# major, $\hat{3}$ of C# major, $\hat{6}$ of G# major, and it continues to descend by five scale degrees with each sharp added to the key signature. It may be significant that the first three scale degrees that are enharmonically paradoxical are the three that differ between major and minor keys.

As with the first five sharp keys along the circle of fifths, the first five flat keys from C major create no enharmonic paradoxes. The paradoxes, again, start to happen with the addition of six or more flats, and each new paradox is the next pitch that is flatted in the key signatures according to the order of flats. For example, the first paradox deals with pitch-class 11, which is the Cb that is added to make the Gb-major scale, and the next paradox is pitch-class 4, which is the Fb needed for the Cb-major scale, and so on. Because of the order of flats, the first paradox is on $\hat{4}$ of the new key, the next is $\hat{1}$ in the following key, and it continues to ascend by five scale degrees with each additional flat in the key signature. As demonstrated below in Example 6.3, the most enharmonically paradoxical major keys related to a major tonic are $\flat V$, $\flat I$, $\flat IV$, $\flat \flat VI$, and $\flat \flat II$, in order of least to most paradoxical.

Enharmonic Paradoxes (pc):



Example 6.3 Enharmonic paradoxes between C major and keys with six to twelve additional flats

Notice that the most closely related enharmonically paradoxical keys on the sharp side have a semitonal relationship with either the major tonic or the dominant, #IV, #I, and #V, relationships that were especially important in Beethoven's "Appassionata" from

Chapter 2 and the C.P.E. Bach fantasy from Chapter 5. On the flat side, the first two paradoxical keys of bV and bI, fit into this category as well. Additionally, the third and fourth enharmonically paradoxical sharp keys (#V and #II) and flat keys (bIV and bbVII) are misspelled chromatic mediant relationships, common occurrences during cycles of major or minor thirds equally dividing a space. These equal divisions often lead to enharmonic paradoxes.

Now that the major to major key paradoxes have been examined, a logical next step is to examine the enharmonic paradoxes created between C major and all minor keys. Because relative minors and majors have the same key signatures, the natural minor scales would reveal the same enharmonic paradoxes as shown above, with the sharp keys starting at E minor and continuing to B minor, F# minor, C# minor, G# minor, D# minor, A# minor, E# minor, B# minor, F× minor, C× minor, and finally to G× minor before all seven notes of the scale would be paradoxical. In order from least to most paradoxical, the sharp natural minor keys that create enharmonic paradoxes are thus #ii, #vi, #iii, #vii, *iv, *i, and *v. The relative minors on the flat side of the circle of fifths are D minor, G minor, C minor, F minor, Bb minor, Eb minor, Ab minor, Db minor, Gb minor, Cb minor, Fb minor, and Bbb minor, with the first paradox appearing at Eb minor. The enharmonically paradoxical key relationships with the major tonic, in order from least to most paradoxical on the flat side, are biii, bvi, bii, bv, bi, biv, and bbvii.

Notably, the flat minor keys are more harmonically familiar than the sharp minor keys, likely due to the fact that minor keys start with three extra flats compared to their parallel majors. The first paradoxical keys of biii and bvi, both triply-altered mediants,

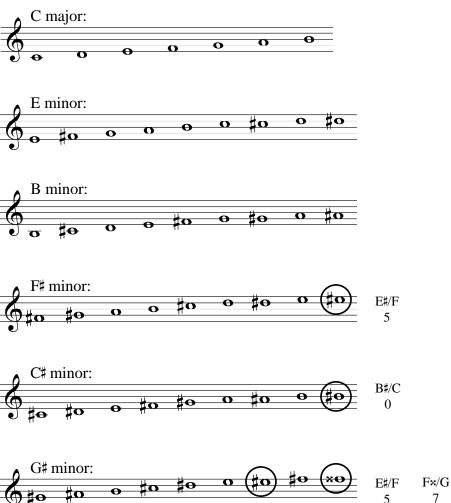
are frequent destinations of modulation. The remote modulation in Fiona Apple's "Extraordinary Machine," analyzed in Chapter 3, is from I to bvi, and chromatic mediant relationships created many enharmonic paradoxes in Poulenc's Piano Concerto, as demonstrated in Chapter 4. Additionally, the third through fifth flat keys, bii, bv, and bi, are semitonally related to the minor tonic or minor dominant, prominent keys in the Beethoven sonata and the Bach fantasy mentioned above.

Additional enharmonic problems arise when the harmonic or melodic minor scales are considered. As discussed in Chapter 2, Georg Vogler claims that raising the leading tone in minor leads to many enharmonic spelling issues. The first five sharp minor keys are compared to the major tonic in Example 6.4 below. Accounting for the possibility of raised sixth and seventh scale degrees, the enharmonic paradoxes begin to emerge two steps earlier along the circle of fifths than in the relative major or natural minor keys. Keys with as few as three additional sharps create paradoxes; F# minor (#iv), C# minor (#i), and G# minor (#v) are all implicated. Also of note is that these three keys are semitonally related to the minor tonic and dominant.

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¹ Vogler, *Handbuch*, 101–10. Refer back to the discussion of mixture in Chapter 2.

Enharmonic Paradoxes (pc):



Example 6.4 Enharmonic paradoxes between C major and melodic minor scales with up to five additional sharps

In minor keys with five to eight additional sharps, both the raised sixth and seventh scale degrees continue to be enharmonically paradoxical. Otherwise, the paradoxical pitches are the same for the sharp minor keys as for their relative majors discussed above. Each key with five to eight additional sharps has two extra enharmonic paradoxes compared to the relative major keys. Whereas F# major has only one

enharmonic paradox, its relative melodic minor scale, D# minor, contains three. What happens above eight sharps is even more interesting; the tenth and eleventh sharp see the raised leading tone become sharp enough not to conflict with the scale degrees of C major anymore, so the number of paradoxes does not rise. By the twelfth additional sharp, the raised sixth degree has also become too sharp to be a paradox with C major, meaning it has the same number of paradoxes as its relative major (Example 6.5).

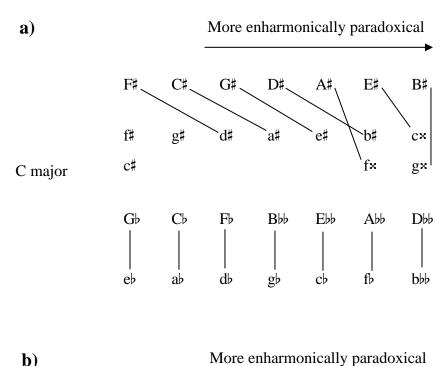
Enharmonic Paradoxes (pc):

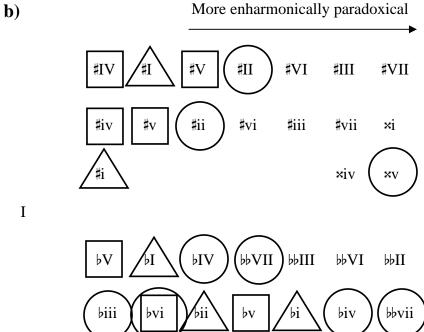
D# minor 2 A# minor G×/A E# minor D×/E ‡o B# minor A×/B 11 F× minor C× minor G× minor ХO E#/F B#/C F×/G C×/D G×/A D×/E A×/B

Example 6.5 Enharmonic paradoxes between C major and melodic minor scales with six to twelve additional sharps

As for the flat minor keys, the raised sixth and seventh create no additional enharmonic paradoxes. For example, in the key with twelve additional flats, Bbb minor, the raised sixth is Gb and the raised seventh is Ab, neither of which creates a paradox with the C major scale.

In the above examination of natural minor scales, I pointed out that the sharp minor keys with paradoxes are in rarer relationships with the tonic major than those of the flat minor keys. Significantly, when the melodic minor is considered, the distance around the circle of fifths it takes to reach enharmonic paradoxes on the sharp side shortens such that more familiar keys are represented, such as #iv, #i, and #v, putting sharp keys on equal footing with flat keys. A summary of enharmonically paradoxical relationships between major and melodic minor scales and C major is shown below in Example 6.6 a). The lines connect keys with the same key signatures (relative major and minor). Notice that the first couple of parallel majors and minors on the sharp side are roughly equally paradoxical, while relative pairs on the right and on the flat side are. Example 6.6 b) generalizes the enharmonically paradoxical relationships using Roman numeral relationships from any major key. Third relationships (and enharmonic equivalents) are in ovals, semitones to the tonic (major and minor) are in triangles, and semitones to the dominant (major and minor) are in rectangles; these are the three key relationships that are featured most in the pieces studied in this dissertation.



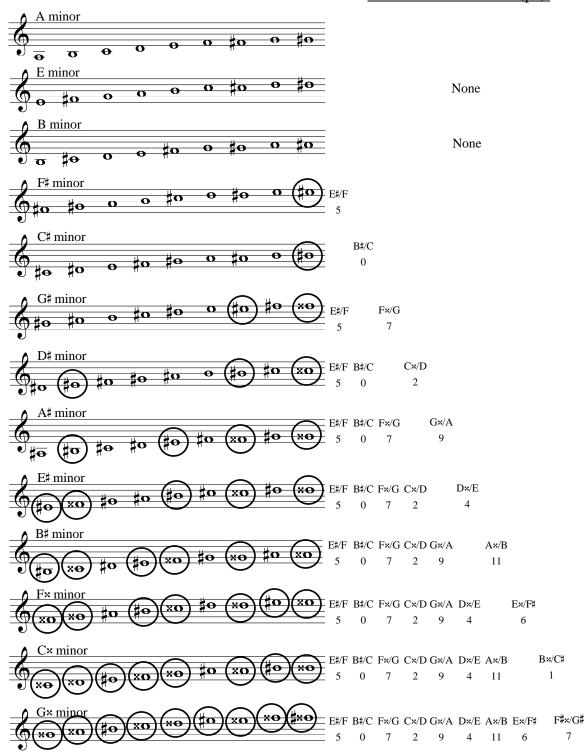


Example 6.6 Summary of enharmonically paradoxical key relations: a) for C major; b) for any major key

Notice in Example 6.6 b) above that the flat minor keys from the major tonic provide the most relationships by third and semitone. The I to by relationship, featured in the Fiona Apple song from Chapter 3, belongs to two categories. More of these relationships are found in keys more closely-related, and thus more accessible, to the tonic, shown on the left.

All major and minor key relationships to a major key have now been explored in the search for enharmonic paradoxes. The next step is to examine major and minor key relationships to a *minor* tonic key, beginning with minor-to-minor. The case of A natural minor related to the other natural minor keys is similar to that of C major related to other major keys, because they share the same key signatures. The same enharmonically paradoxical pitch classes would appear in the same order as in Examples 6.1, 6.2, and 6.3. The first would arise in keys with six additional sharps and flats, and more paradoxes would be added the farther away on the circle of fifths the keys are from the tonic. On the sharp side of the circle of fifths, paradoxes with A natural minor would occur in D# minor, A# minor, E# minor, B# minor, F× minor, C× minor, and G× minor. They would happen between the tonic and Eb minor, Ab minor, Db minor, Gb minor, Cb minor, Fb minor, and Bbb minor on the flat side. More interesting is what happens when relationships between the melodic minor scales are considered, as shown below in Example 6.7.

Enharmonic Paradoxes (pc):

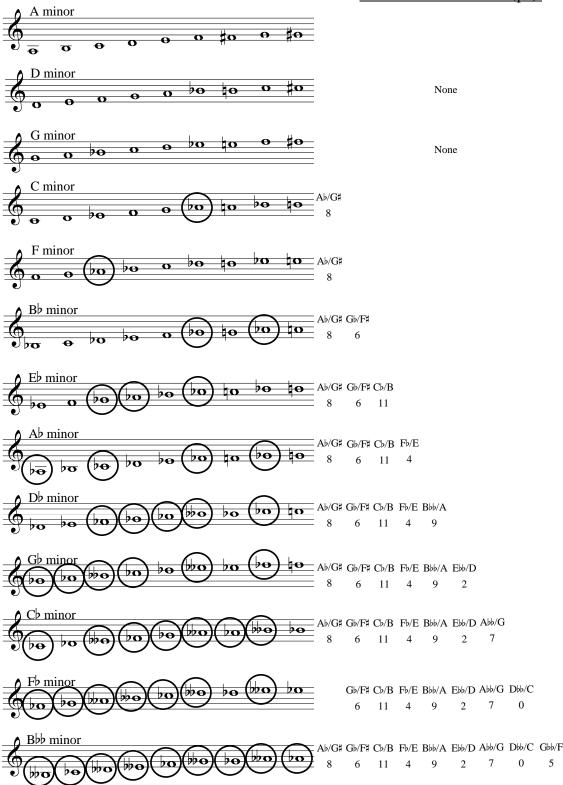


Example 6.7 Enharmonic paradoxes between A minor and melodic minor scales with up to twelve additional sharps

The raised leading tone makes a pitch class enharmonically paradoxical three keys along the circle of fifths earlier than the relative major with the same number of sharps in the key signature, and the raised sixth scale degree one key sooner (compare with Example 6.4 above). Unlike when comparing C major to the melodic minor scales, comparing A melodic minor leads to the number of paradoxes steadily increasing up to twelve sharps, meaning all nine pitches in the final scale of G× minor are enharmonically paradoxical with all the pitches in the A minor scale. The sharp minor scales that are enharmonically paradoxical are, in order of least to most, ‡vi, ‡iii, ‡vii, ‡iv, ‡i, ‡v, ‡ii, ×vi, ×iii, and ×vii. The first two of these are the borrowed mediant and submediant from A major, confirming mode mixture as a source of enharmonicism. The next four are semitonally related to the tonic and dominant minor modes, and the seventh is a misspelled chromatic mediant.

When on the flat side of the circle of fifths, the raised sixth and leading tone in A minor cause enharmonic paradoxes to develop by the third additional flat, much as on the sharp side. Both C minor and F minor contain an Ab, which is enharmonically paradoxical to the leading tone of A minor, G#. Bb minor adds Gb, which conflicts enharmonically with the raised sixth of A minor, F#. By the time twelve flats have been added to the key signature, as with the twelfth sharp, all nine pitch classes of the melodic minor scale are paradoxical, as shown below in Example 6.8. The only oddity on the flat side is the eleventh flat, Fb minor, which has no Ab, giving it seven enharmonic paradoxes instead of the expected eight.

Enharmonic Paradoxes (pc):



 $\label{lem:eq:continuous} \textbf{Example 6.8 Enharmonic paradoxes between A minor and melodic minor scales with up to twelve additional flats$

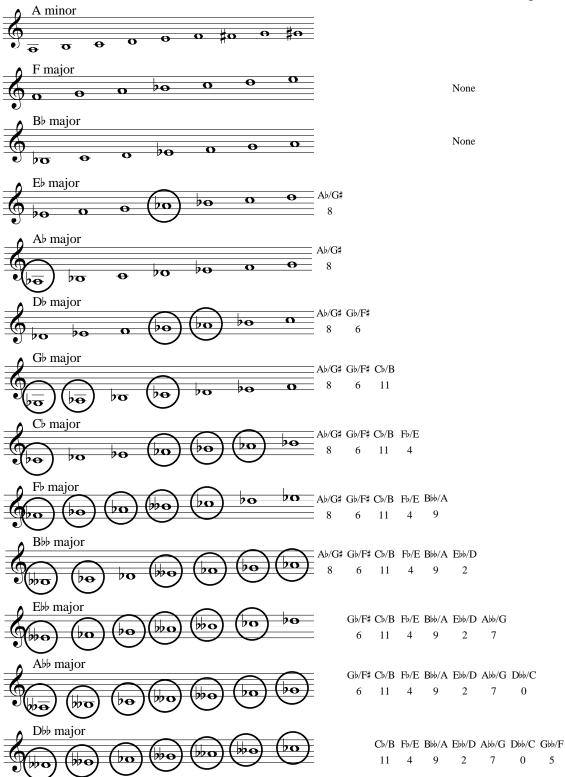
The flat melodic minor keys with enharmonic paradoxes in relation to A melodic minor are, in order, C minor, F minor, Bb minor, Eb minor, Ab minor, Db minor, Gb minor, Cb minor, Fb minor, and Bbb minor, or iii, vi, bii, bv, bi, biv, bvii, biii, bvi, and bbii.

Just as with the sharp key relations, the first two are chromatic mediant relationships.

The third, fourth, and fifth are semitone relations with the minor tonic and dominant. The following biv is a misspelled chromatic mediant.

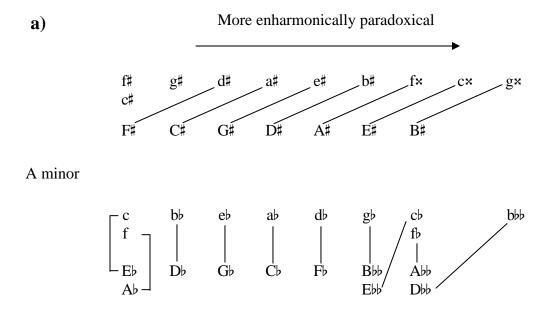
Finally, I will compare the scales of A melodic minor to major scales. The raised sixth and seventh scale degrees in A minor create no complications with the sharp keys. In fact, the enharmonic paradoxes follow the exact pattern as between C major and the sharp major keys; refer back to Example 6.2. The two raised scale degrees do, however, cause extra enharmonic paradoxes to arise in the flat major keys, as shown below in Example 6.9. The paradoxes begin after only three flats, when the G# leading tone of the tonic conflicts enharmonically with Ab in keys between three and nine flats away. The raised sixth scale degree, F#, causes enharmonic paradoxes with Gb in keys with five to eleven flats more than the tonic. All the other enharmonic paradoxes are the same as between C major and the flat major keys, shown in Example 6.3.

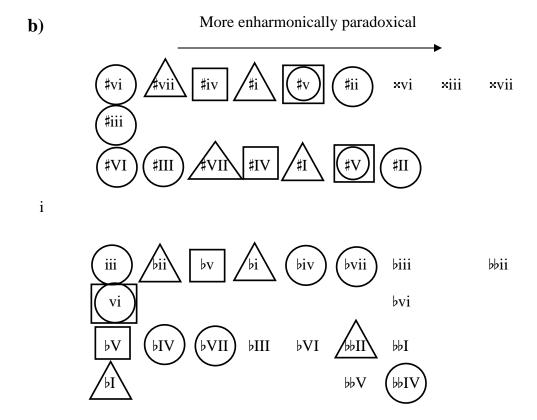
Enharmonic Paradoxes (pc):



Example 6.9 Enharmonic paradoxes between A minor and major scales with up to twelve additional flats

Below, in Example 6.10 a), is a summary of enharmonically paradoxical key relationships to A melodic minor. The lines or brackets indicate relative major-minor pairs. Example 6.10 b) shows more general relationships, using Roman numerals. As in Example 6.6 b), third relations are circled, semitone relationships to the tonic are in triangles, and semitone relationships to the dominant are in rectangles.





Example 6.10 Summary of enharmonically paradoxical key relations: a) for A melodic minor; b) for any melodic minor key

It seems that Vogler was correct—in comparing both major and minor tonics to major and minor scales, the minor scales create more enharmonic paradoxes because of their frequent borrowing of the sixth and seventh scale degrees from minor.² As seen above in Example 6.10, the relationships between a minor tonic and major and minor scales produce more relationships by third and semitone from tonic and dominant than from a major tonic. The first twelve sharp and flat keys create a maximum of seven enharmonically paradoxical pitches with the major tonic, but due to the added two notes

² Vogler, *Handbuch*, 101–10. Refer back to the discussion of mixture in Chapter 2.

(raised $\hat{6}$ and $\hat{7}$), the minor tonic can produce up to nine enharmonically paradoxical pitches in the first twelve sharps and flats. From this point forward, I will refer to the number of paradoxical pitches between a scale and tonic as "degrees;" for instance, if a key has five pitches that are enharmonically paradoxical with the tonic, it is paradoxical in the fifth degree.

3. For Future Research

The systematic comparison of scales above opens the door for new work to be done with enharmonic paradoxes. The next step would be to determine what significance the degrees of enharmonicism have and what patterns they would reveal in the repertoire. For example, Fiona Apple's "Extraordinary Machine" has paradoxes arising from the key relations of C \sharp major and A minor, I to \flat vi, which is paradoxical in the second degree and is related to the tonic by third and to the dominant by semitone. The paradoxical pitches are 3 and 3 (C and F), the notes that define A minor as minor mode (A major would have produced no paradoxes). The note C has a significant role throughout the bridge. Because mode mixture with C \sharp minor was rampant in the C \sharp major sections, a comparison between C \sharp minor and A minor should also be made. That relationship is i to vi, which is only paradoxical in the first degree and is also in a third relation to the tonic and a semitone relation to the dominant. The enharmonic paradox produced is C versus

the B# leading tone, the very pitch-class Apple sings as two distinct pitches at the end of the bridge.³

In the Fiona Apple, the fact that there is only one modulation in the song makes the significance of these relationships clear. Mode mixture is clearly involved, and one of the paradoxical pitches is emphasized throughout the most emotional section of the song. In the other pieces analyzed in this dissertation, it is not as clear-cut, because there are different keys in control locally versus on higher hierarchical levels. A future project for these works, then, would be an exhaustive study of the key relationships surrounding the enharmonic paradoxes in search of any pattern or any effect they would have on an interpretation of the pieces as a whole.

Another avenue for future research would be to expand the styles, genres, and time periods included in a study of enharmonicism. In this dissertation, I have already gone beyond the usual chronological boundaries of the late nineteenth century for research of this kind, but only four pieces cannot represent all of the variation in the treatment of enharmonicism that surely exists. The title alone of Rameau's "L'Enharmonique" from the Suite in G of 1726 calls for an enharmonic analysis. In "Maximally Smooth Cycles, Hexatonic Systems, and the Analysis of Late-Romantic Triadic Progressions," Richard Cohn claims there are juxtapositions of hexatonic poles extending as far back as the late fourteenth-century. Perhaps there are enharmonic issues in such pieces, as well. To compare the effectiveness of my methodology to that of others, it should also be applied to the music that is most often the focus of enharmonic

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³ Refer to the discussion of the bridge in Chapter 3.

⁴ Richard Cohn, "Maximally Smooth Cycles," 31.

and chromatic studies: works dating from the late nineteenth century. An area full of variations in style and harmonic structure is, of course, popular music, which contains many subgenres that might contain songs meriting inclusion in a study of enharmonicism.⁵

The close study of the roles and behaviors of enharmonic paradoxes in the various types of pieces in this study has demonstrated that enharmonicism has an important place in both the chromatic and diatonic narratives of the music under consideration. Music that straddles the boundary between diatonic and chromatic calls for an integrated approach, and a study of enharmonicism provides the vehicle necessary for such an approach. Although enharmonic paradoxes are normally seen as a primarily chromatic phenomenon, they can originate due to relationships between diatonic scales and mode mixture. Much more work in the area of enharmonic studies is necessary to clarify the significance of these relationships even further. Nevertheless, I hope I have demonstrated over the course of this dissertation that, through the combined lens of diatonicism and chromaticism, much can be revealed about the nature of enharmonic paradoxes, and through the lens of enharmonicism, much can be uncovered about the interplay between the diatonic and the chromatic.

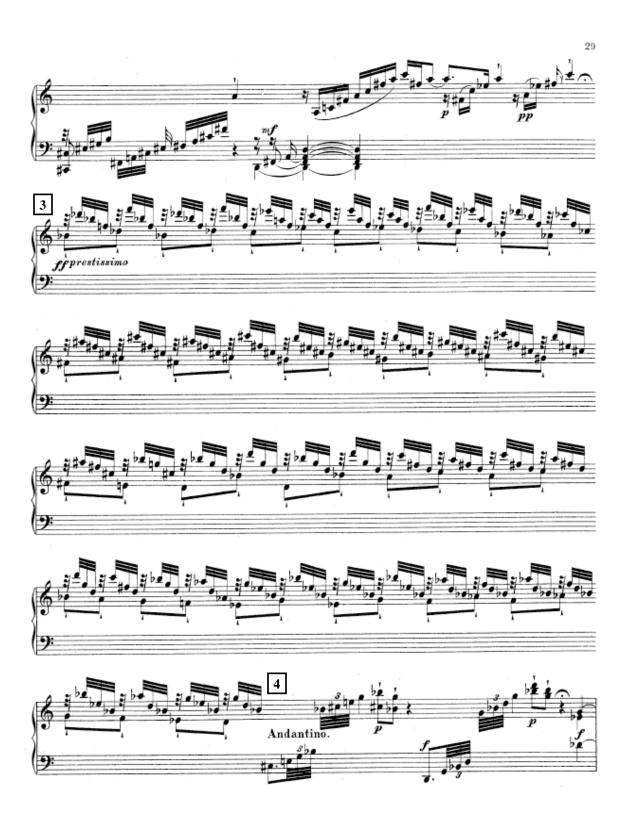
⁵ See again Walter Everett's "Making Sense of Rock's Tonal Systems," discussed in Chapter 3.

Appendix¹

Fantasia II.



¹ From C.P.E. Bach, *Die Sechs Sammlungen von Sonaten, freien Fantasien und Rondos für Kenner und Liebhaber* (Leipzig: Breitkopf & Härtel, 1954–1963): A.A. 26.

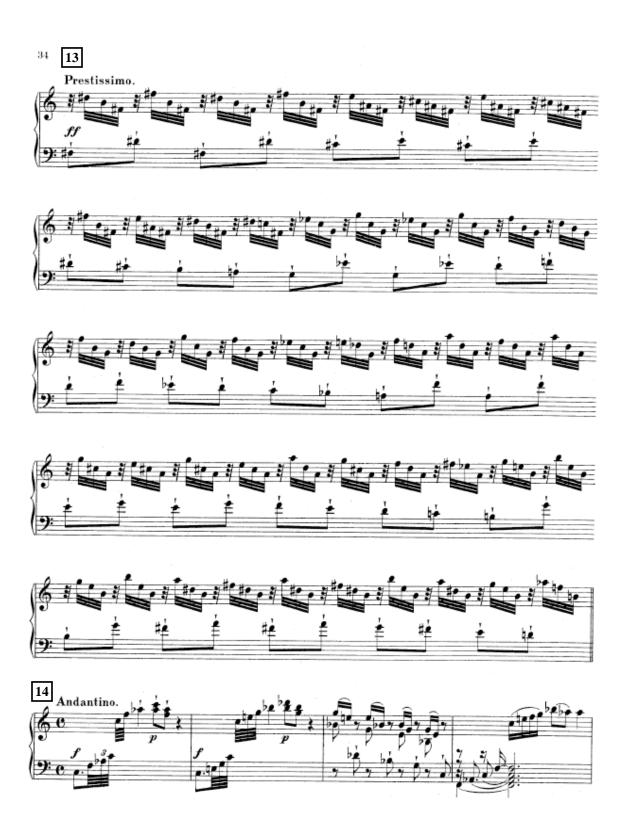














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