

C. P. E. Bach, Schenker, Improvisation, and Composition

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Few issues bothered Heinrich Schenker more than the state of music education: for him, theory instruction had been in decline since its heyday in the early/mid 18th century. He was especially dismayed that contemporary curricula no longer provided students with a firm grounding in the art of improvising fantasies, preludes, and cadenzas.¹ For example, he dismissed Salomon Jadassohn's *Die Kunst zu modulieren und zu präledieren* (1890) and Max Reger's *Beiträge zur Modulationslehre* (1903) because they failed to recognize the fact that modulating and preluding are free exercises in the art of composing.² And, while he praised J. J. Quantz for his advice on improvising cadenzas in the *Versuch einer Anweisung die Flöte traversiere zu spielen* (1752), Schenker lamented: "Today's musicians are no longer able to improvise preludes or modulations, they are no longer able to execute cadenzas and fermatas in their leisure time! And which of today's teachers ... would be in a position to provide such a clear rationale for a technique like the one just

¹ I would like to thank John Koslovsky and Austin Gross for their thoughtful suggestions to this paper, and Bob Wason for sharing with me his many insights about improvisation and composition. I would also like to thank Christopher Winders for preparing the musical examples.

² Heinrich Schenker, *Harmonielehre* (Stuttgart and Berlin: Cotta, 1906), par. 181, 445–447; ed., Oswald Jonas and trans. Elisabeth Mann Borgese, *Harmony* (Chicago: University of Chicago Press, 1954), 336–338; and "Ein Gegenbeispiel: Max Reger Op. 81, Variationen und Fugue über ein Thema von Joh. Seb. Bach für Klavier," *Das Meisterwerk in der Musik* 2 (1926); trans. John Rothgeb, "A Counterexample: Max Reger's Variations and Fugue on a Theme by Bach," *The Masterwork in Music* ed. William Drabkin (Cambridge: Cambridge University Press, 1996), 116–117. See Salomon Jadassohn's *Kunst zu modulieren und präledieren* (Leipzig: Breitkopf und Härtel 1890) and Max Reger, *Beiträge zur Modulationslehre* (Leipzig: Kahnt, 1903); trans. John Bernhoff, *On the Theory of Modulation* (New York: Dover, 2007), 3 and 4.

described [by Quantz] for the execution of cadenzas, and thereby convince the student of its necessity!”³

Although Schenker was fond of proclaiming the educational benefits of improvisation, he wasn’t always forthright about explaining what those benefits might be.⁴ A notable exception, however, is his essay “Der Kunst der Improvisation” published in *Das Meisterwerk in der Musik* 1 (1925).⁵ Here Schenker emphasized that improvisation is important precisely because it provides students with a vehicle for mastering the principles of diminution, principles that, according to him, are ultimately bound to the *Ursatz* and *auskomponierung*. He believed not only that the best way to learn about the principles of diminution is to study how great composers created their own fantasies, preludes, and cadenzas, but also that vital clues can be found in C. P. E. Bach’s *Versuch über die wahre Art das Clavier zu spielen*, especially its final chapter.⁶

But Schenker was no mere apologist for C. P. E. Bach and found fault with his predecessor on several counts. This paper describes some of these criticisms and their theoretical/pedagogical implications. It does so in three parts. Part I takes another look at the final chapter of Bach’s *Versuch* and its approach to teaching improvisation: it describes Bach’s models for improvising tonally closed progressions, modulating progressions, and melodic diminutions, as well as how he adapted these models to create a sample fantasia. Part II then considers Schenker’s reaction to

³ Schenker, *Kontrapunkt I* (Stuttgart and Berlin: Cotta, 1910); ed. John Rothgeb and trans. John Rothgeb and Jürgen Thym, *Counterpoint*, rev. ed. (Ann Arbor, MI: Musicalia, 2001), 296. See J. J. Quantz, *Versuch einer Anweisung die Flöte traversiere zu spielen* (Berlin: Voss, 1752); trans. Edward R. Reilly, *On Playing the Flute* (New York: Schirmer, 1985), 187.

⁴ For a general survey of Schenker’s views about improvisation, see John Rink, “Schenker and Improvisation,” *Journal of Music Theory* 37/1 (1983), 1–54.

⁵ Schenker, “Der Kunst der Improvisation,” *Das Meisterwerk in der Musik* 1 (Munich: Drei Masken Verlag, 1925), 11–40; trans. Richard Kramer, “The art of improvisation,” in William Drabkin ed., *The Masterwork in Music* 1 (Cambridge: Cambridge University Press, 1994), 2–19.

⁶ C. P. E. Bach, *Versuch über die wahre Art das Clavier zu spielen* Part I 2nd ed. (Berlin: George Ludewig Winter, 1759) and Part II (Berlin: George Ludewig Winter 1762); ed. and trans. William J. Mitchell, *Essay on the True Art of Playing Keyboard Instruments* (London: Eulenburg, 1974) Part 2, Chapter 7, 430–445.

Bach's text, both positive and negative. Finally, Part III compares Bach's views about the relationships between improvisation and composition and suggests just how useful Schenkerian theory can be in teaching 18th-century counterpoint and model composition.

I. C. P. E. Bach's Guidelines for Improvising Preludes and Free Fantasies

Published in two installments (1753/1759 and 1762), Bach's *Versuch* is one of the foremost pedagogical texts of all time and part of a long line of keyboard manuals that extends back from Mattheson's *General-Bass Schule* (1731), through Heinichen's *General Bass* (1728) and Niedt's *Musikalische Handleitung* (1710–21), to Couperin's *L'Art de toucher le clavecin* (1716–1717).⁷ The book stands out for many reasons. Part I, Chapter 2 includes a celebrated account of notated embellishments—appoggiaturas, trills, turns, mordents, compound appoggiaturas, slides, and snaps. Schenker was so impressed by this survey that he used it as a springboard for his own text *Ein Beitrag zur Ornamentik* (1904/1907) and specifically praised it in *Der freie Satz*.⁸ Parts I and II offer vital insights about the transition between Baroque and Galant styles: Bach presents a snapshot of thoroughbass theory in the mould of his father intermingled with insights gained from his time in Berlin at the court of Frederick the Great (1738–1768).⁹

Although he was primarily interested in the art of accompaniment, Bach discusses improvisation on several occasions. At the end of Part 1 Chapter 2, for example, he showed how to elaborate a *fermata* (see Figure 1a) by arpeggiating individual harmonies and ornamenting them with neighbor and passing tones

⁷ Mitchell, "Introduction," *Essay*, 11.

⁸ Bach, *Essay*, 79–143. Heinrich Schenker, *Ein Beitrag zur Ornamentik* (Vienna: Universal, 1904/1907); trans. Hedi Siegel, "A Contribution to the Study of Ornamentation," *Music Forum* 4 (1976), 1–139 and *Der freie Satz* Neue musikalische Theorien und Phantasien Vol. 3 (Vienna: Universal, 1935), par. 252–253; ed. and trans. Ernst Oster (New York: Longman, 1979), 96–99.

⁹ Mitchell, "Introduction," *Essay*, 5.

(see Figure 1b).¹⁰ Later, he offered advice on improvising a cadenza, recommending that it should always fit the work as a whole: “there must be a vision of the whole piece so that the variation will retain the original contrasts of the brilliant and the simple, the fiery and the languid, the sad and the joyful, the vocal and the instrumental.”¹¹

Figure 1. *Elaborating a fermata*

a. *Simple fermata*



b. *Elaboration involving neighbor and passing tones*



Similar ideas resurface in the final chapter, Bach’s most extensive discussion of improvisational practice. This remarkable passage sets out to achieve five main goals. First, it provides a brief survey of the free fantasia (par. 1–5). The result is simple enough: “a fantasia is said to be free when it is unmeasured and moves through more keys than is customary in other pieces, which are composed or improvised in meter.”¹² According to Bach, the fantasia’s diverse harmonic structure is “expressed by all manner of figuration and motives” and that these gestures are typically notated in 4/4 meter.¹³

¹⁰ Bach, *Essay*, 143–146.

¹¹ Bach, *Essay*, 164–166.

¹² Bach, *Essay*, 430.

¹³ Bach, *Essay*, 430.

The chapter's second goal was to teach students how to improvise a simple prelude (par. 6–7). Since Bach was concerned with complete works, he insisted that preludes and free fantasies should begin and end in the same key. To ensure that this key is not “left too quickly at the beginning or regained too late at the end,” he proposed that they should begin and end with a tonic pedal, the latter being prepared by a dominant pedal.¹⁴ The strings of consecutive integers in Figure 2 indicate that Bach preferred stepwise strings in the upper voices. Figures 3a–k show similar examples in Figures 181, 362, and 402 of the *Versuch*.

Figure 2. Stepwise strings over tonic and dominant pedals

a. b. c. d.

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

Figure 3. Stepwise strings over tonic and dominant pedals, continued

a. b. c.

3 4 5 - 4 3	10 11 10 9 8 7	12 11 10 9 8 \flat 7
1 2 3 - 2 1	8 9 8 7 6 5 \sharp	10 9 8 \flat 7 6 5

d. e.

6 \flat 7 8 9 - 10 11 12	5 6 7 8 9 10 11 12 11 - 10
4 5 6 \flat 7 - 5 6 \flat 7	3 4 2 3 4 5 6 7 - 8

f.

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

¹⁴ Bach, *Essay*, 430–431.

Figure 3 (continued)

g.

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

h.

6 4 3 8 7 6 5 7 8 6 7 6 7 6
4 4 4 - 4 4 3 8 5 4 7 4 4 4 3 3 3

6 4 3 2 5 2 6 7 2 6 5 6 - 6 6 6
4 4 3 2 5 2 6 7 2 6 5 4 5 2 5 5

i.

6 7 6 7 6 7 8 6 7 8 6 7 8
4 4 3 3 4 2 4 5 3 4 4 8 3 4 3

6 7 4 7 2 7 6 8 6 7 6 2 6 2
4 5 2 7 4 8 5 5 5 2 5 2

j.

6 9 8 7 7 6 9 8 7 6 5 8 6 5
4 4 5 4 2 8 4 4 5 4 5 4 8 7 8

6 2 6 7 6 4 6 7 6 2 6 6 4 6 2 6
4 5 4 6 5 4 7 6 5 4 6 5 4 2 2 6

k. Allegro

5 6 7 6 5 8 7 6 5 9 8 7 6 8 7 6 5
4 5 4 6 5 4 7 6 5 4 6 5 4 6 5 4

Besides demonstrating the significance of step motion in the upper voices, Figures 2 and 3 indicate that these lines can be manipulated contrapuntally. For example, Bach's commentary suggests that the upper voices in Figure 3d can be inverted at the 8^{ve}: "the two voices should progress in thirds or sixths, a point not always to be decided on arbitrarily in a fine accompaniment."¹⁵ Figures 3a and 3d also imply inversion at the 12th: in Figure 3a, the line starting on E is supported by another line starting a third below on C; in Figure 3b, the line on E supports another line starting a fifth above C on G. Stepwise strings can even be elaborated by ornamental tones or displacements: the stepwise descent in the tenor voice of Figure 3f is elaborated with escape tones F \sharp -G, E-F \sharp , D-C \sharp , C \sharp -D, and the suspensions in Figure 3j arise from displacing one line against another. Finally, the lines can be inflected chromatically: in the case of Figure 3i, the tenor voice projects an almost fully chromatic descent from G to G in the tenor voice.

To connect the opening and closing tonics, Bach recommended using variants of the 'Rule of the Octave' (see Figure 4). He divided them into three types: ascending/descending major and minor scales (Figure 4a), scales adorned with chromatic passing tones (Figure 4b), and scales reordered in various ways (Figure 4c). Elsewhere, Bach harmonized such patterns with pedal tones and strings of parallel thirds/sixths, but in the final chapter, he offered more complex settings, ranging from the familiar to the "luxuriant."¹⁶ In each case, the settings must obey the basic rules of tonal voice leading outlined in Part 2, Chapter 4. These rules dictate that lines mainly move by step, avoid parallel perfect octaves and fifths, and project triads and seventh chords. As before, Bach's settings prefer stepwise strings in the upper voices: these strings often ascend or descend in parallel or contrary motion with the bass and can be restacked, elaborated, displaced, or transformed chromatically.¹⁷

¹⁵ Bach, *Essay*, 183.

¹⁶ William J. Mitchell, "Modulation in C. P. E. Bach's *Versuch*," in H. C. Robbins Landon and Roger E. Chapman ed., *Studies in Eighteenth-Century Music* (London: George Allen, 1970), 338.

¹⁷ See Mitchell's realizations in "Modulation in C. P. E. Bach's *Versuch*," 338.

Figure 4. Rule of the Octave

a. Ascending/descending scales

Two staves of musical notation in bass clef. The first staff shows an ascending scale with fingerings: 6, 6, 5, 6, 5^b, 9 8 / 7 6, 9 8 / 7 6, 9 8 / 7 6, 9 8 / 7 6, 9 8 / 7 6, 9 8 / 7 6, 6. The second staff shows a descending scale with fingerings: 6, 5^b, 9 8, 8, 7 6, 5^b, 7 6, 5^b, 9 8, 9 8, 7 6, 5^b.

b. Scales adorned with chromatic passing tones

Two staves of musical notation in bass clef. The first staff shows an ascending scale with chromatic passing tones and fingerings: 6, 5^b, 5^{b7}, 5^{b7}, 5 6 5^b, 6, 5 2, 6, 5 4, 6 5^b, 4, 6, 7 6. The second staff shows a descending scale with chromatic passing tones and fingerings: 7 8 6, 5^{b7}, 7, 6 5^b, 9 8, 8, 7 6, 5^b, 5^b, 6, 4, 6, 2, 6, 5^{b7}, 4, 6, 7 8.

c. Scales reordered in various ways

One staff of musical notation in bass clef showing a reordered scale with fingerings: 5^{b7}, 4, 6 6^b 5, 5^b, 6, 6, 5, 4, 5, 6, 5, 6 5, 5 6 5^{b7}, 6, 5, 4 3.

The third task on Bach's list was to teach students how to change key (par. 8–11).¹⁸ To articulate each new center, "it suffices

¹⁸ According to Mitchell, Bach used two quite different terms: '*ausweichung*' refers to the "broad march toward the new key along various chromatic by-paths," and '*modulation*' specifies the "actual transition" of keys through their respective leading tones. Mitchell, "Modulation in C. P. E. Bach's *Versuch*," 338–339. Richard Kramer explores this idea in "The New Modulation of the 1770s: C. P. E. Bach in Theory, Criticism, and Practice," *Journal of the American Musicological Society* 38/3 (1985), 551–592.

if the leading tone (*semitonium modi*) of the various keys lies in the bass or some other part, for this tone is the pivot and token of all natural modulation.”¹⁹ Bach claimed that formal cadences are not always necessary: “It is one of the beauties of improvisation to feign modulation to a new key through a formal cadence and then to move off in another direction. This and other rational deceptions make a fantasy attractive; but they must not be excessively used, or natural relationships will become hopelessly buried beneath them.”

Bach listed several modulation schemes for the free fantasy. As shown in Figure 5a, they usually modulate to V, vi (close), ii, iii, and IV (remote) in major keys and bIII, v (close), iv, VI, and bVII (remote) in minor keys. These match schemes given earlier in the *Versuch* (see Figure 5b).²⁰ In all cases, Bach demanded that modulations are carefully prepared: “The ear, in order not to be disagreeably startled, must be prepared for the new key by means of intermediate harmonic progressions.”²¹ When the music must modulate rapidly to a remote key, he advocated the use of diminished seventh chords.²²

In par. 12–13, Bach tackled his fourth task: to inform students about figuration and motives. So that students might appreciate “the beauty of variety,” he focused on three main types of figuration.²³ He began by discussing broken chords “in which principal as well as certain neighboring tones are repeated.”²⁴ Figure 6a is a good case in point and clearly recalls Figure 1. Figure 6b fills the broken chords with strings of passing tones; these runs can change direction and include internal repetitions, extra “foreign tones,” and irregular groupings.²⁵ Finally, Bach allowed patterns that can be imitated and inverted (Figure 6c).²⁶

¹⁹ Bach, *Essay*, 434.

²⁰ Bach, *Essay*, 208, Fig. 243.

²¹ Bach, *Essay*, 436.

²² Bach, *Essay*, 438.

²³ Bach, *Essay*, 438–439.

²⁴ Bach, *Essay*, 439.

²⁵ Bach, *Essay*, 439–440.

²⁶ Bach, *Essay*, 440.

Figure 5. Modulation schemes to close and distant secondary keys

a.

	Close			Distant		
Major	I	V	vi	ii	iii	IV
Minor	I	♭III	v	iv	VI	♭VII*

Bach, *Versuch*: 434–436, Fig. 474 [*only in Fig. 474].

b.

	Close			Distant		
Major	I	V	vi	–	–	IV
Minor	I	♭III	v	iv	–	–

Bach, *Versuch*: 208, Fig. 243.

Figure 6. Three main types of figuration

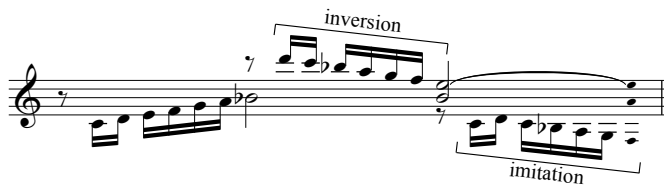
a. Broken chords elaborated with neighboring tones



b. Broken chords filled passing tones



c. Figuration patterns involving inversion and imitation



Bach's last task was to improvise a free fantasia in 4/4 meter (par. 14). He began with a plan consisting of a figured bass with the note values "written as accurately as can be expected" (see Figure 7a).²⁷ This plan follows those surveyed in par. 6–7: it begins on a prolonged tonic chord and ends on a tonic pedal, just like the paradigms in Figures 2–3. The sequence of secondary keys follows the ones in Figure 5 for major keys: I–V–ii–iv–I; the modulations to ii and iv being "feigned" in the manner mentioned by Bach. Following par. 11, he used a diminished seventh chord to modulate quickly back to the tonic at the end of the fantasia. Bach's realization also displays the diversity in figuration shown in Figure 6: it includes broken chords elaborated with neighbor tones, and runs with internal repetitions and "foreign notes."

Figure 7. Bach's plan for a fantasia

a. Bach's plan for a fantasia

Allegro.

(1)

(x) (3) (4) (5)

(6) (1)

y

II. Schenker's Response to C. P. E. Bach

Although Schenker mentioned the *Versuch* in most of his mature writings, he dealt with the final chapter most extensively in

²⁷ Bach, *Essay*, 442.

“The art of improvisation.”²⁸ As shown in Figure 8, he systematically responded to every aspect of Bach’s essay. He began by endorsing Bach’s general remarks about the nature of the fantasy and reinforced the idea that preludes and free fantasies should begin and end in the same key. According to him, the latter

Figure 8. Bach’s chapter on improvisation and Schenker’s response

Bach	Topic	Schenker	
1. General remarks			
Par. 1	Defines the fantasy.	p. 3	
Par. 2	Differentiates between composition and improvisation.	p. 3	
Par. 3	Describes the main components of fantasy. Fantasies usually begin and end in the same key and should include diverse harmonic motion and figuration. Although fantasies are metrically irregular, they are usually notated 4/4.	p. 3	
Par. 4	Instrumentation.	–	
Par. 5	Independent vs dependent preludes.	–	
2. Improvise a simple prelude			
Par. 6	Begin/end in tonic and modulate to close keys.	pp. 3–4	
Par. 7	‘Rule of the Octave’: ascending/descending major/minor scales, sequences, pedals (I at start and end; V before end). These patterns used to harmonize unfigured bass.	–	not Fig. 472
3. Modulation/tonicization			
Par. 8	Process of modulation.	p. 4	Fig. 473
Par. 9	Common modulation schemes: Major keys: I–V–vi (close), ii, iii, and IV (remote) Minor keys: i–♭III–♭v (close), iv, VI, and ♭VII (remote)	p. 4	not Fig. 474
Par. 10	Circuitous modulations to every key. I–♭II, ♭ii, III, iv, ♯IV, ♯iv, v, ♭VI, ♭vi, VI, ♭VII, ♭vii, VII, vii.	p. 4	not Fig. 475
Par. 11	Diminished sevenths, inversion.	pp. 4–5	not Fig. 476
4. Figuration/motives			
Par. 12	Diverse figuration. [Later additions add an extra par. 12a]	pp. 5–6	Fig. 477
Par. 13	Illustration of diminution. Broken chords, runs, imitations/inversions.	pp. 6–8	Fig. 478
5. Improvising a free fantasy			
Par. 14	Presents plan in figured bass and realization.	pp. 8–13	Fig. 479–80

²⁸ Schenker’s also analyzes Handel’s preludes in B♭ major (HHA, IV/5,1) and D minor (HHA, IV/1). See Larry Laskowski, *Heinrich Schenker: An Annotated Index to his Analyses of Musical Works* (New York: Pendragon Press, 1978), 107 and 109.

demonstrated Bach's understanding of the principle of monotonicity, as did his decision to classify secondary keys by their distance from the tonic, fifth, sixth, etc.²⁹

Schenker also acknowledged, albeit indirectly, the significance of 'The Rule of the Octave.' He showed how the opening progression of Bach's own fantasy derives from scale segments harmonized in parallel thirds (see Figure 9a). The bass projects the first five notes of an ascending D major scale and is harmonized in parallel thirds F \sharp /D, G/E, A/F \sharp , B/G, C \sharp /A. Bach modified this progression by replacing the dissonant passing tone E in the bass with the leaping passing tone B to avoid parallel perfect fifths A/D–B/E (see Figure 9b). This substitution resembles the sorts of reordered scales shown earlier in Figure 3c and anticipates the more radical reordering and rearrangement that appear in many of Schenker's mature analyses.

Figure 9. Allusions to 'The Rule of the Octave' in Bach's *Fantasia*

Given his interest in diminution, it is hardly surprising that Schenker also focused much of his attention on par. 12–13 of the *Versuch*. Whereas Bach recognized that these diminutions horizontalize specific harmonies, he went further to explain the

²⁹ Schenker, "The art of improvisation," 4. As Carl Schachter points out, Rameau and Kirnberger also endorsed monotonicity: see "Analysis by Key: Another Look at Modulation," *Music Analysis* 6/3 (1987), 299.

essential counterpoint of each examples. And finally, Schenker extolled the virtues of Bach's sample fantasy: "The realization ... blossoms from first note to last from the most rigorous artifice of voice-leading, from the most ingenious diminutions which, striking and beautiful in themselves, fulfill all the relationships of harmony and voice, and make them pure."³⁰ In *Der freie Satz*, he drew attention to the lyrical nature of Bach's diminutions: "Performance, too, must sing from the whole, whether the piece moves slowly or quickly. Everything in the genuine masterwork is song-like, not only those passages which are obviously 'cantabile.' C. P. E. Bach, in whose path Haydn followed deserves praise as the originator of this deeply songful, absolute diminution. Indeed every line of his immortal *Versuch über die wahre Art, das Clavier zu spielen*, expresses song!"³¹

Although Schenker clearly agreed with much of what Bach had to say, he did not accept everything. A firm believer in the explanatory nature of music theory, Schenker was often dissatisfied with Bach's explanations: "it is not that the musical facts of the case are falsely represented, but that his language was as yet inadequate to supply the right words to explain the deeper relationships."³² In this respect, Schenker was critical of C. P. E. Bach as a theorist rather than as a composer. Much of the blame stemmed from certain basic limitations with thoroughbass methods: "The thoroughbass theory of Bach was faulty because, unfortunately, problems are shown there not in their origin but in an already advanced state. Thoroughbass theory shows us prolongations of *Urformen* without having first having familiarized the reader with the latter in anyway."³³

To clarify what remains "hidden" in Bach's explanations, Schenker provided a detailed derivation of the piece given here in Figure 10.³⁴ As Felix Salzer notes, this reading stands out for its claims about the structural implications of Bach's bass line and its

³⁰ Schenker, "The art of improvisation," 13.

³¹ Schenker, *Der freie Satz*, par. 253; *Free Composition*, 98–99.

³² Schenker, "The art of improvisation," 8.

³³ Schenker, *Kontrapunkt I*, "Author's Preface," xxviii.

³⁴ Schenker, "The art of improvisation," 8.

links to the actual composition: the descent A, G, F, E in the *Urlinie* is mirrored in the descending tetrachord D–C–B \flat –A in the bass.³⁵ According to Schenker, Bach avoided parallel perfect fifths in the outer voices (A/D–G/C–F/B \flat –E/A) by elaborating, displacing, and chromatically inflecting the two lines.³⁶ Figure 10a shows how Bach avoided the fifths between A/D and G/C by displacing the upper and lower voices: A/D–A/C–G/B. In this case, the bass tone C serves as a seventh to the prevailing tonic harmony and allows the music to tonicize iv. This motion has surface implications: Bach “imitates” the same “circle of harmonies,” I–IV–V–I at the start and end of the fantasia.³⁷ In both cases, Bach inflected the subdominant harmony with its leading tone F \sharp in the bass, just as he suggested in par. 8 (Fig. 473).

Figure 10. Schenker's derivation of Bach's Fantasia

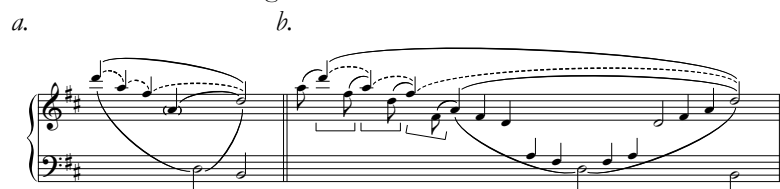
³⁵ Felix Salzer, “Haydn’s Fantasia from the String Quartet, Opus 76, No. 6,” *The Music Forum* 4 (1976), 162.

³⁶ Schenker, “The art of improvisation,” 8.

³⁷ Schenker, “The art of improvisation,” 8.

Later in his essay, Schenker commented on how certain diminutions appear at different levels. As shown in Figure 11, he claimed that the opening measures project nested statements of an arpeggiated motive: Figure 11b shows diminutions at the surface, whereas Figure 11a shows them across the passage as a whole. Schenker's description is especially exuberant: "The beauty of the realization thus lies in capturing, so to speak, a smaller motive of arpeggiation within the larger arpeggiation and in concealing this relationship with passage-work which, in decisively realizing a goal, nevertheless pretends to wander aimlessly."³⁸ In other words: "Bach insists upon a most precise ordering of events even in the diminution of a free fantasy, and only for the sake of 'fantasy' hides it behind the appearance of disorder: in this is constituted the inimitable quality of his art."³⁹

Figure 11. Nested diminutions



Schenker's analysis does, however, raise a number of technical issues. Although Figure 10 generates the fantasy from a single $\hat{5}$ -line prototype, the configuration shown in Figure 10a is one that Schenker subsequently associated with the middleground rather than the background.⁴⁰ As regards the *Urlinie*, he claimed that chromatic alterations, such as $b\hat{3}$, can arise at the deep middleground not the background.⁴¹ Similar mixtures occur in his

³⁸ Schenker, "The art of improvisation," 11.

³⁹ Schenker, "The art of improvisation," 11.

⁴⁰ See William Pastille, "The Development of the *Ursatz* in Schenker's Published Works," in Allan Cadwallader ed., *Trends in Schenkerian Research* (New York: Schirmer, 1990), 71–85.

⁴¹ Matthew Brown, "The Diatonic and the Chromatic in Schenker's Theory of Harmonic Relations," *Journal of Music Theory* 30/1 (1986), 1–33.

graph of Bach's Short Prelude in D minor also published in *Das Meisterwerk in der Musik* I.⁴² As regards the *Bassbrechung*, Schenker declared that the progression from I to V can only be filled by a rising motion at the deep middleground; falling progressions can only appear at later levels.⁴³ Since he subsequently changed his reading of Handel's prelude in D minor, he may well have regraphed Bach's fantasy as well.⁴⁴

Figure 10 also raises issues about the number of essential voices. The concept of an essential voice, like that of an essential harmony or *Stufe*, is clearly fundamental to Schenker's thinking; it provided him with ways not only to account for the behavior of melodic leaps, but also to explain so-called polyphonic or compound melodies. And yet, Schenker was often lax about including every essential strand of counterpoint in his graphic analyses, especially at the background and deeper levels of the middleground.⁴⁵ Such inconsistencies are immediately apparent in Figure 10. In Figure 10a, for example, Schenker notated only the outer voices, even though the opening tonic and penultimate dominant harmonies clearly require the third of the chord in the inner parts. Although Schenker included these missing notes in Figure 10b, he vacillated between notating three or four voices.

One way to overcome these problems is to sketch Bach's fantasy in the manner shown in Figure 12. Figure 12a gives the *Ursatz*, a $\hat{5}$ -line descent in D major. Unlike Schenker's graph, this sketch suggests that the stepwise descent D–C–B \flat –A appears in the tenor, rather than the bass voice. Next, the middleground sketch in Figure 12b articulates the progression deep I–IV7–V–I in the same manner as *Der freie Satz*, Fig. 16.3c. Figure 12c then adds the bass

⁴² See Schenker, "Joh. S. Bach: Zwölf kleine Präludien, Nr. 6," *Das Meisterwerk in der Musik* 1 (Munich: Drei Masken Verlag, 1925), 11–40; trans. Hedi Siegel, "Bach: Twelve Short Preludes No. 6 [BWV 940]," in *The Masterwork in Music* 1, 54–57.

⁴³ See Schenker, *Der freie Satz*, Fig. 67, par. 187–188.

⁴⁴ See Schenker, *Der freie Satz*, Fig. 64/1.

⁴⁵ Concerning the number of voices in Schenker's prototypes, see David Neumeyer, "The Three-Part *Ursatz*," *In Theory Only* 10 (1987), 3–29; Brown, *Explaining Tonality*, 72–76; Channan Willner, "The Polyphonic *Ursatz*," http://channanwillner.com/pdf/polyphonic_ursatz.pdf; and Geoffrey Chew, "The Spice of Music: Towards a Theory of the Leading Note," *Music Analysis* 2/1 (1983), 35–53.

arpeggiation D–A–D across the first half of the fantasy, the applied VII7/V sonority that inflects the structural dominant, and the subsequent expansion of that sonority. Finally, Figure 12d gives a foreground reading that corresponds with Schenker's original sketch (Figure 10c).

Figure 12. Alternative derivation of Bach's Fantasy

III. Improvisation and Composition

The preceding sections have described certain tensions that exist both between Bach and Schenker and between Schenker's analysis of Bach's fantasy and the theoretical model he advanced in *Der freie Satz*. But these tensions also shed light on broader issues, such as the relationship between improvisation and composition.

Given that the *Versuch* is primarily a keyboard tutor, Bach emphasized the difference between the two activities: “It is quite possible for a person to have studied composition with good success and to have turned his pen to fine ends without having any gift for improvisation. But, on the other hand, a good future in composition can be assuredly predicted for anyone who can improvise, provided that he writes profusely and does not start too late.”⁴⁶ Remarks like these reinforce the fact that compositions are usually created over extended periods of time and are often notated in some written form, whereas improvisations are normally performed on the fly and are realized directly on some musical instrument.

More recently, John Sloboda has also highlighted the differences between composing and improvising: “The composer rejects possible solutions until he finds one which seems to be the best for his purposes. The improviser must accept the first solution that comes to hand.”⁴⁷ Although he admits that both rely on a repertory of learned strategies, Sloboda insists that improvisers are primarily concerned with achieving fluency and limiting the available resources, whereas composers are primarily concerned with unifying their works and satisfying long-range goals. Figure 13, which is adapted from Sloboda, conveys this last point schematically: Boxes A–D specify several stages in a work’s genesis, Boxes E–H specify the types of knowledge required to create that work, and the arrows show how composers try to balance local and global concerns.⁴⁸

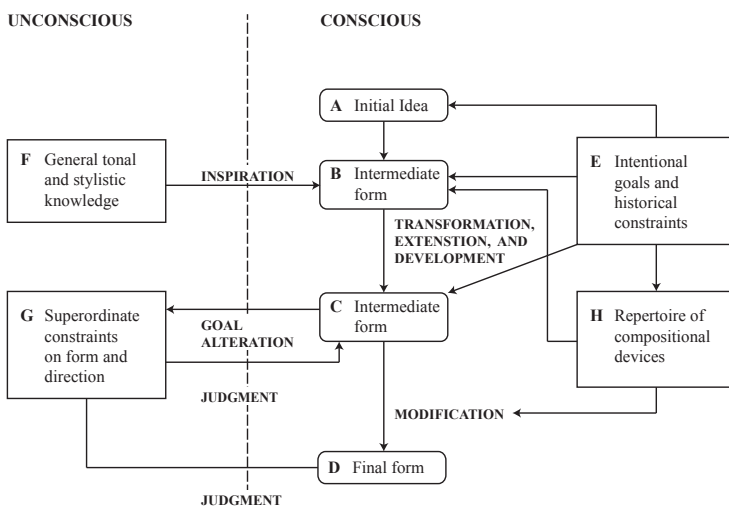
Schenker, however, took another tack: unlike Bach and Sloboda, he emphasized the similarities rather than the differences between both activities. Schenker was well aware that written-out fantasies, like those discussed in “The art of improvisation,” are not necessarily the same as *de facto* improvisations. But just as it is impossible to know how much composers reworked their pieces,

⁴⁶ Bach, *Essay*, 430.

⁴⁷ John Sloboda, *The musical mind. The cognitive psychology of music* (Oxford: Oxford Press, 1985), 149.

⁴⁸ Sloboda, *The musical mind*, 118. Sloboda’s original chart omits Box E, see Matthew Brown, *Debussy’s ‘Ibéria’* (Oxford: Oxford University Press, 2003), 8–9.

Figure 13. Sloboda's model of musical composition



so it is impossible to know how much they rehearsed their improvisations. As Salzer puts it, both exploit the individual's "mental storehouse of musical ideas."⁴⁹ And though Schenker admired the fact that improvisers access these ideas on the fly, he was even more impressed when, like skilled composers, they balance the local with the global: "Only the presence of mind with which our geniuses mastered the tonal material in such a way made it possible for them to reach far-reaching synthesis. Their works are in no way pieced together but rather, in the manner of the free fantasy, sketched out spontaneously and brought up from a concealed *Urgrund*."⁵⁰

In fact, Schenker believed that composers acquire their sense of long-range coherence by improvising: "The ability in which all creativity begins—the ability to compose extempore, to improvise fantasies and preludes—lies only in a feeling for the background, middleground, and foreground. Formerly such an ability was

⁴⁹ See Salzer, "Haydn's Fantasia, Opus 76, No. 6," 162–163.

⁵⁰ Schenker, "The art of improvisation," 19.

regarded as the hallmark of one truly gifted in composition, that which distinguished him from the amateur or the ungifted.”⁵¹ Improvising also cultivates composers’ memories: “The great masters took the background as their source of memory. Improvisation certainly gave their memory greater strength, but the ability to improvise depends to a great extent on memory.”⁵² Since Schenker believed that melodic writing should achieve a balance between repeating given ideas with creating new material, he insisted that great composers must possess the gift of improvisation. According to him: “genius, the gift for improvisation and long-range hearing, is requisite for greater time spans. Short-range hearing is incapable of projecting large spans, because it does not perceive those simpler elements upon which far-reaching structure is based.”⁵³

If, as Schenker claims, the similarities between improvisation and composition outweigh the differences and that the latter can be explained as constraints on the process, then it seems plausible to represent the task of improvising a free fantasy on Sloboda’s chart (see Figure 14). Boxes A–D specify the preliminary versions an improviser may consider before deciding on a preferred performance. Boxes E–H list the types of knowledge required to complete that performance. Box E specifies that the fantasy must be improvised, diverse harmonically and motivically, and presented in 4/4. Box F shows that the fantasy must follow the basic rules of tonal voice leading, as enumerated by Bach in Part 2, Chapter 4 of the *Versuch*. Box G derives the fantasy from an *Ursatz*; in this case, one that descends from $\hat{5}$. And Box H includes voice-leading models for cadences, pedal tones, ascending/descending scales, sequences, and modulation schemes, given in par. 7 of the final chapter of the *Versuch*.

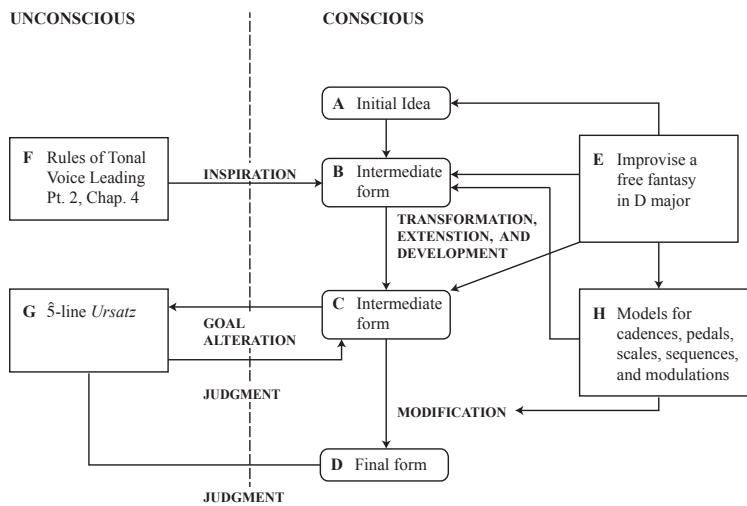
Besides reconciling Bach’s views about improvisation with Schenker’s views about composition, Figure 14 also helps to

⁵¹ Schenker, *Free Composition*, Chap. 1, Section 4, 6.

⁵² Schenker, *Free Composition*, par. 301, 128.

⁵³ Schenker, *Free Composition*, par. 30, 18–19.

Figure 14. Sloboda's model adapted for improvisation



resolve the tensions between Schenker's analysis of the fantasy and the methods outlined in *Der freie Satz*. As mentioned earlier, Schenker's graph derives Bach's fantasy from a prototype that would be assigned to the deep middleground in *Der freie Satz*. From a cognitive perspective, this discrepancy suggests that, although Bach may have improvised his fantasy from the plan given in Figure 7a, this plan prolongs a more abstract prototype. In Sloboda's terms, it lies somewhere between Box H, the specific compositional devices used by Bach, and Box G, the superordinate constraints on the piece as a whole. During the process of composition, Bach mediated between these two poles. On the one hand, his plan combines several devices described in par. 7 of the *Versuch*: a modified scale segment at the beginning, a variant of the descending tetrachord D–C–B \flat –A in the middle, and a tonic pedal at the end. On the other hand, the descending tetrachord is a middleground projection of the descent A–G–F–E–D in the *Urlinie*. For this parallelism to work, Bach had to avoid parallel perfect fifths between the two lines; he did so by displacing and elaborating the two voices in the manner shown in Figure 10a.

For Schenker, then, the similarities between improvisation and composition outweigh the differences. Both activities require an appreciation of *Ursätze* and *auskomponierung*: “In language, flow derives from the fact that the speaker knows in advance what he wants to say and therefore formulates it: if he were to delay thought until he spoke, only stammering would result. In music, however, there are even talented men, creators, and interpreters, who are still far from a similar ‘tone-readiness.’ True musical fluency comparable to that in speech is to be found only in works of genius. All such readiness springs only from the voice-leading of the *Ursatz* and its subsequent prolongations.”⁵⁴ According to him, the shortcomings of texts like Jadassohn’s and Reger’s simply reflect a general decline in the art of composition: “Our generation has squandered the art of diminution, the composing-out of sonorities, and, like the fox in the fable, declares sour those grapes it cannot reach. No longer able to understand the art of diminution bequeathed to us in the teaching of the masters, and the example they set, it turns ear and mind away from a fundamental law with which it can no longer cope, either creatively or in imitation.”⁵⁵ And yet, all is not lost. Schenker conceded that properly trained musicians of the future may emulate masters of the past, although they will be “as different from them as they all differ from one another.”⁵⁶

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⁵⁴ Schenker, *Free Composition*, par. 83, 35.

⁵⁵ Schenker, “The art of improvisation,” 2.

⁵⁶ Schenker, “The art of improvisation,” 19.

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