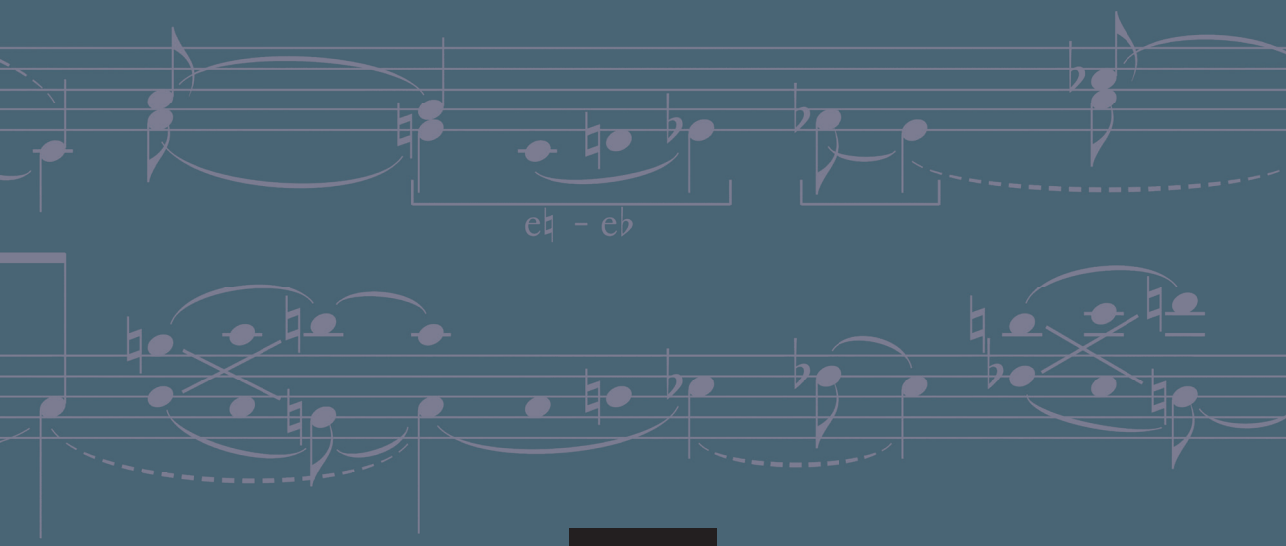
New Horizons in Schenkerian Research

Edited by

Allen Cadwallader · Karen M. Bottge

Oliver Schwab-Felisch



OLMS

New Horizons in Schenkerian Research

Vol. 1

Texts

Studien und Materialien
zur Musikwissenschaft

Band 115.1

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Allen Cadwallader, Karen M. Bottge, Oliver Schwab-Felisch

Georg Olms Verlag
Hildesheim | Zürich | New York

2022

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.d-nb.de.

Cover design, layout and typesetting: Oliver Schwab-Felisch, Berlin
Music examples: The authors

Proofreading: Ulrike Böhmer, Hildesheim

www.olms.de

ISBN 978-3-487-42331-9

In Memoriam
John Rothgeb
(1940–2020)

John Rothgeb, a good friend and colleague, was an exceptional scholar. His encyclopedic knowledge of Schenker and his work is evident in his many articles and conference presentations. But it is his love of language and translation that perhaps best defines John's legacy in the community of music scholars. In his translations (with editorial commentary) of *Kontrapunkt I* and *II*, the monograph of *Beethovens neunte Sinfonie*, the *Erläutungsausgaben* of Beethoven's last piano sonatas, to name only a few, we experience John's ability to capture the essence and inner meanings of Schenker's often difficult prose. Moreover, his uncompromising attitude toward scholarly excellence and the faithful representation of Schenker's ideas sets a standard for us all to aspire. John's influence on the field of Schenkerian scholarship is timeless, and it is to his memory that this volume is dedicated.

Allen Cadwallader

Vol. I

Texts

Acknowledgements

This publication is made possible through the generous support of Wayne Alpern, with additional assistance from the Research Fund of the University Mozarteum Salzburg and other contributing authors.

We are grateful to several individuals who helped bring this project to fruition. Eric Wen gave generously of his editorial expertise and served as Production Consultant for the preparation of many examples. Hedi Siegel frequently advised on matters of editorial detail and provided the background for Carl Schachter's contribution. Finally, we thank Doris Wendt and Ulrike Böhmer of Olms Verlag. The Schenkerian community is indeed fortunate to have a strong association with Olms, a collaboration spanning almost two decades. We look forward to future publications with them in Schenkerian research.

Contents

Part I: Theory and Influence

1 Schenker and the Fundamental Bass 1
William Rothstein

2 Schenker and Sechter: A Discontinuous History 21
Martin Eybl

3 Schenker's "Free Forms of Interruption" and the Strict: Toward a General Theory of Interruption 39
Frank Samarotto

4 The "*heilige Trapezoid*" and the Galant Recapitulation 55
L. Poundie Burstein

Part II: Analysis

5 Chopin's Mazurka, Op. 59, No. 2: A Tribute to Mendelssohn? 73
Carl Schachter

6 J. S. Bach's Fugue in B minor, BWV 869: *Rameau oder Schenker*? 85
Eric Wen

7 Schenker, Sonata Form, and the Schubert Symphonies 99
David Beach

8 Displacement, Superimposition, and Dissonance in Ravel's Late Style 117
Sigrun Heinzelmann

9 Motivic Elaboration and Chromaticism in the Andante cantabile of Mozart's Piano Sonata in B♭ Major, K. 333 135
Roger Kamien

Part iii: History and Reception

10 The Reception of Heinrich Schenker's Music Theory in German Speaking Countries after 1945 145
Oliver Schwab-Felisch

11 Heinrich Schenker and August Halm 187
Patrick Boenke

Part iv: Cultural Studies

12 Musical Justice and Tonal Inequality in the Theory of Heinrich Schenker 209
Wayne Alpern

13 Race, Nation, and Jewish Identity in the Thought of Heinrich Schenker 243
Barry Wiener

Index of Composers and Authors 303

Index of Subjects 309

Foreword

In the fall of 1931, Schenker conducted a seminar with four of his students. He assigned them several compositions on which to work, and the results became the *Fünf Urlinie-Tafeln* (*Five Analyses in Sketchform*), published in 1932 by the David Mannes Music School in New York City, but engraved in Vienna by Waldheim-Eberle with Universal-Edition serving as the European distributor. The works analyzed were a J. S. Bach chorale, the first Prelude of the *Well-tempered Clavier* I, a section of a Haydn sonata movement, and two Chopin Etudes. In his Foreword, Schenker cited the "Eroica" Symphony graphs in the third volume of *Das Meisterwerk in der Musik* and declared, "the presentation in graphic form has now been developed to a point that makes an explanatory text unnecessary."

Nearly a century later, Schenker would be amazed at how widely his ideas have been practiced, discussed, and disseminated. Classes in Schenkerian theory in the United States are a required part of the curricula in many colleges, universities, and conservatories. Many professional conferences devote sessions to his work. An entire website, *Schenker Documents Online*, archives his correspondence, diaries, and other documents from his *Nachlass*. Since about 2005, this trend has also taken hold in Europe, particularly in Austria and Germany where, as a resident of Vienna, Schenker published his theoretical works. In 1990, Schirmer Books published *Trends in Schenkerian Research*, a collection of essays by a current generation of Schenkerian scholars. *New Horizons* is inspired by that 1990 publication; it presents the most recent significant work in the ongoing "Schenker Project."

The reception of Schenker's ideas in the United States has been well documented and need not be detailed here. An excellent article by David Carson Berry, "Schenkerian Theory in the United States: A Review of Its Establishment and a Survey of

Current Research Topics," covers this history up to 2005.[1] Since then, in addition to the appearance of *Schenker Documents Online* mentioned above, something remarkable has occurred: All of Schenker's major published writings now exist in English translation. Most recent and notable are John Rothgeb's translations of Schenker's *Erläuterungsausgaben* published by Oxford University Press in 2015. This plethora of translations is fortuitous. Because of Schenker's sometimes difficult writing style, even German-speaking readers often prefer to read his works in English translation. Probably no other music theorist in the history of Western music is represented by such a large body of primary sources accessible in translation. This is the latest achievement in the American development of Schenker studies.

The essays of *New Horizons*, some of which are mentioned here, are divided into four sections. Those of the first section, Theory and Influence, focus on theoretical precepts that Schenker did not develop fully in *Free Composition*. Frank Samarotto, for instance, aims for a general theory of interruption, describing types of interruption not recognized by Schenker in *Free Composition*. Also included is the examination of thinkers who influenced Schenker. Martin Eybl illuminates the far-reaching influence of Simon Sechter's ideas on Schenker's work, and William Rothstein elucidates the inspiration of Sechter and of the fundamental-bass tradition on Schenker's thought.

Schenkerian theory, of course, is known to many (sometimes primarily) through the explanatory power of his analyses. In our second section, Analysis, Carl Schachter convincingly argues that Mendelssohn's Song without Words, Op. 62, No. 1, might have served as a kind of model for Chopin's Mazurka, Op. 59, No. 2 (which Mendelssohn actually requested from Chopin). And Eric Wen, in his essay on the exposition of Bach's B-minor Fugue (WTC I), seeks to reconcile Rameau's harmonic approach, as exemplified in Johann Kirnberger's analysis, with the voice-leading principles characteristic of Schenkerian analysis.

The reception and development of Schenker's ideas have been fertile territory for research since the 1930s in the United States. Essays in this area are presented in the third section, History and Reception. As mentioned above, German-speaking scholars are now contributing significantly to the canon of Schenkerian studies. Oliver Schwab-Felisch chronicles the reception of Schenker's work in German-speaking countries since 1945; Patrick Boenke reviews the regular correspondence and exchange of ideas between Schenker and August Halm, a German theorist and composer.

The final section, Cultural Studies, presents two essays that place some of Schenker's cultural and extra-musical thoughts and statements into historical context. In one of these studies, Wayne Alpern argues persuasively against the notion that Schenker's

1 David Carson Berry, "Schenkerian Theory in the United States: A Review of Its Establishment and a Survey of Current Research Topics," *Zeitschrift der Gesellschaft für Musiktheorie* 2 (2003/05), no. 2–3: 101–37.

advocacy of the musical superiority of certain notes over others parallels a philosophy elevating certain people over others. He demonstrates that Schenker's ideas of hierarchy and the inequality of tones in fact derive from his legal studies and contemporary jurisprudence. This very recent area of Schenkerian research will undoubtedly receive more attention in future scholarship.

Allen Cadwallader
Karen M. Bottge
Oliver Schwab-Felisch

Part I: Theory and Influence

1

Schenker and the Fundamental Bass

WILLIAM ROTHSTEIN

Thirty years ago, Harald Krebs published an essay (Krebs 1988) on Schenker's changing attitude toward Jean-Philippe Rameau. According to Krebs, Schenker maintained a respectful view of Rameau until the First World War. After the war, Schenker turned sharply against all things French, including Rameau's theories. This negative stance is expressed most forcefully in Schenker's essay "Rameau or Beethoven?", which bears the subtitle "Creeping Paralysis or Spiritual Potency in Music?" (Schenker [1930] 1997, 1–9).[1]

In the present study, I will demonstrate that Rameau's theory of harmony retained its hold on Schenker throughout his career. The imprint of Rameau began to wane in Schenker's final decade, but it never disappeared. The principal vehicle of Rameau's influence was not his writings, however; it was the Viennese theoretical tradition in which Schenker himself was trained.[2] Since the impact of Rameau on Schenker was mostly indirect, Rameau's presence in these pages will be similarly indirect. My immediate subject is the relation of Schenker's ideas to nineteenth-century Viennese harmonic theory, a topic that has been addressed by others, including Robert P. Morgan and Robert Wason (Morgan 1978; Wason 1983).[3]

As we near the centenary of Schenker's most influential writings, Schenkerian analysis is increasingly viewed not only as a living tradition but as part of the history of theory. Schenker had strong views about the history of theory, views that are important to understand whether one accepts them or not. Stated as briefly as possible,

1 Eight years earlier, in 1922, Schenker expressed respect for Rameau's achievement as a composer but claimed that Couperin and Rameau were the last artistic composers that France produced (Schenker [1921–24] 2004, 70).

2 Krebs (1988) claims that Schenker knew Rameau's *Traité de l'harmonie* (Rameau [1722] 1971) but none of Rameau's later writings.

3 Damschroder (2008) provides conceptual background for that author's later writings on Schenkerian theory, which I discuss briefly at the end of this essay.

Schenker regarded his own work as the fulfillment of the promise contained in the best of eighteenth-century theory. He and his closest followers viewed nineteenth-century theory as essentially sterile, leading away *from* rather than *toward* musical art. In their view, theorists of this era impeded music's living flow with their vertically conceived harmonies and their formal recipes, which yielded only the lifeless simulacra of sonatas and fugues. For Schenker, nineteenth-century theory served almost entirely as a negative example.[4]

What about the eighteenth century? In the first volume of *Counterpoint*, Schenker treats Fux, Rameau, and C. P. E. Bach as his forerunners in the theory of counterpoint (Fux), harmony (Rameau), and free composition (Emanuel Bach) (Schenker [1910] 1987, xxv–xxx). He viewed each of these masters as having grasped some part of the truth, but himself as the first to grasp all of it—including, crucially, how the parts fit together. Fux revealed the archetypes of voice leading, but not their ramifications. Emanuel Bach described foreground voice leading exquisitely, but he failed to ground it in the archetypes. Rameau discovered the basic laws of harmony, but he shackled voice leading too closely to his fundamental bass, treating voice leading as result rather than cause. To Schenker, harmony and voice leading were, in effect, coequal branches of musical government. He himself would adjudicate their occasional differences because, apart from the great composers themselves, he alone could see the musical phenomenon whole. This is a brief description of Schenker's view before 1918.

Yet Schenker was inevitably a man of his time, a man with a late-nineteenth-century education. We continue to learn about that education through the efforts of people like Wayne Alpern, Lee Rothfarb, and the contributors to *Schenker Documents Online* (Alpern 1999; Rothfarb 2018; http://www.schenkerdocumentsonline.org/index.html). My focus in this essay is harmony, and where harmony is concerned, Schenker was a product of the Viennese tradition that began with Simon Sechter (1788–1867).[5] Other inheritors of the Sechter tradition include Anton Bruckner, Schenker's harmony teacher at the Vienna Conservatory;[6] Carl Mayrberger, best known for his analysis of Wagner's *Tristan* prelude (Mayrberger [1881] 1994); the textbook-writing team of Rudolf Louis and Ludwig Thuille (Louis and Thuille [1907]); and Arnold Schoenberg (Schoenberg [1922] 1978, [1948] 1969). Most of these people were composers, as was Schenker in his younger years. All either grew up or studied in Vienna.

4 The description in this paragraph paraphrases passages in Schenker's writings from 1904 (*Ein Beitrag zur Ornamentik*) to 1935 (*Der freie Satz*). See also Salzer (1937).

5 See the essay by Martin Eybl elsewhere in this volume [Ed.].

6 Schenker criticizes the teachings of Sechter and Bruckner at various points throughout his writings. For Sechter, see Schenker ([1910] 1987, xxxi); for Bruckner, see Schenker ([1954] 1980, 177n–178n).

Sechter's teaching centered on the fundamental bass, introduced by Rameau over a century earlier. A fundamental bass is an imaginary bass line consisting of the roots, or fundamentals, of the chords that underlie a piece of music. Rameau represented his fundamental bass in musical notation, on a bass staff separate from the *basso continuo*. But Rameau's fundamental bass was no aimless succession of chordal roots: the intervals between fundamentals were subject to certain rules, which included a strong preference for motion by perfect fifth.

The fundamental bass shown in Example 1.1 (2) appears in Schenker's *Harmonielehre*.[7] It demonstrates how close Schenker's conception of the fundamental bass was to Rameau's, right down to the separate bass staff and the emphasis on motion by fifth. As we shall see, this Rameau-like fundamental bass remained the foundation of Schenker's view of harmony until very late in his career.

In the second half of the eighteenth century, Rameau's German followers split over his rules of fundamental-bass progression. Friedrich Wilhelm Marpurg (1718–1795) declared all such rules irrelevant. For Marpurg, a fundamental bass should show the root of each chord taken individually, without regard to chord succession; roots may move by any interval, whether consonant or dissonant. By contrast, Johann Philipp Kirnberger (1721–1783) accepted Rameau's rules of fundamental-bass progression with only minor changes, although he posed (probably through ignorance) as Rameau's opponent.[8] Marpurg's view became the dominant one in North Germany, but it was Kirnberger's view of the fundamental bass—the Rameauvian view—that shaped Sechter's ideas seventy-five years later.[9]

During those seventy-five years, German theorists began to represent harmonic roots with Roman numerals, replacing the musical notation used by Rameau and Kirnberger. The first to do this was Georg Joseph Vogler (1749–1814). The following is from Vogler's *Handbuch zur Harmonielehre*:

> A harmonist must know the origin, use, and tendency of every harmony, i.e., must know (1) what kind of harmony it is, (2) how it arose, (3) how it is used, and (4) to where it can progress. . . . Here I provide, in summary fashion, a precise idea of the place that each [harmony] takes or may take, as well as the quality of the third, fifth, or seventh on each tone of the scale.

7 The legend *Grundtöne* ("fundamentals") in example 1.1 is omitted from the English edition.

8 For a discussion of the dispute between Marpurg and Kirnberger, see Lester (1992, 231–57).

9 On Sechter's self-reported knowledge of Kirnberger's writings see Wason (1984, 62–63). According to Ludwig Holtmeier (2010, 89n), Sechter also borrowed ideas from the eighteenth-century theorist Christoph Nichelmann.

M3 and P5 occur on the	I	V	IV	in major.
	III	VI	VII	in minor.
m3 and P5 occur on the	I	V	IV	in minor.
	III	II	VI	in major.
m3 and d5 occur on the	VII♯			in both.
	IV♯			in major.
	II			in minor.[10]

(Vogler 1802, 111; translation mine)

Because Vogler derives scales directly from the overtone series, his major mode includes the raised fourth degree, corresponding to the eleventh partial; on this degree one finds a diminished triad. This is why Vogler's analyses often include the Roman numeral ♯IV. Although Vogler devotes much attention to chord quality, his Roman numerals are all the same size because they do not represent chords; they represent scale degrees, which are not chords but pitch classes, expressed in relation to a tonic.

Vogler's pupil Gottfried Weber (1779–1839) introduced the now-familiar distinction between large and small Roman numerals. Example 1.2 (3) is Weber's analysis of a passage from Mozart's *Magic Flute*. Weber reduces each vertical sonority to a root-position triad or seventh chord, which he represents with a large or small Roman numeral. The Roman numeral now shows both the scale degree of the root and the quality of the triad built on it—either major, minor, or diminished. Like Marpurg, Weber places no restriction on fundamental progression; any root may move to any other. Letters next to each note of the score tell if that note is root, third, fifth, or seventh of the fundamental chord. In the case of thirds and sevenths, the letters also tell whether the interval above the root is major or minor.

Sechter's treatise on harmony appeared in 1853. Several ideas that are often credited to Schenker are already present in Sechter. One such idea is the composing-out of a triad or seventh chord through voice leading: passing motion, neighboring motion, or suspension, sometimes in two or more voices simultaneously, sometimes combined with voice exchange. Example 1.3 (3) offers a relatively simple illustration. The progression is what was known in Vienna as "Sechter's chain" (*sechtersche Kette*): the complete diatonic circle of descending fifths, I–IV–VII–III–VI–II–V–I. In bars 1, 3, 5, and 6, the chord in the second half of the bar arises through a chordal skip in the bass, from the root to the third of the fundamental harmony, combined with a descending

10 I have omitted the part of Vogler's table that deals with seventh chords.

passing tone in one of the upper voices, usually the soprano. Here Sechter shows fundamentals using letter names, as Marpurg, Vogler, and Weber had done before him. I have translated Sechter's letters into upper-case Roman numerals (Sechter's Roman numerals are always upper-case).

There appears to be a C-major triad in the second half of bar 5. This triad is illusory, according to Sechter: its fifth, G, is really a dissonant seventh above the fundamental A, which was heard on the downbeat of the same bar; a dissonance has been transformed into an apparent consonance. This idea of transforming a passing or neighboring dissonance into an apparent consonance underlies Schenker's later theory of free composition. The idea itself seems to originate in Rameau's later writings, especially *Code de musique pratique* (Rameau 1760, 125–26 and example *III^e N*). It is more prominent in Kirnberger (1773), which was known to Sechter, and more prominent still in Sechter's treatise. Schenker amplified it into an all-encompassing theory.

Tonicization is another Schenkerian concept that does not originate with Schenker. The underlying idea may be traced to the sixteenth century (see Zarlino [1558] 1983, 54–91), and it was a commonplace of eighteenth-century theory; Schenker merely coined the term.[11] Whatever its origin, the concept is clearly expressed in Sechter's treatise, as the following passage demonstrates:

> The use of chromatic (*leiterfremden*) tones cannot be extended to the fundamentals. Therefore, in the chromatic C major scale (*in der chromatischen C dur Tonleiter*), the fundamentals remain exactly the same as in the diatonic scale, viz.: the diatonic degrees, C, D, E, F, G, A, and B, which may be treated for a short time as degrees of a related scale. For example:
>
> I. The tones C, F, D, and G may be treated as the same degrees in C major and C minor, that is, in both as the 1st, 4th, 2nd, and 5th degrees.
>
> II. The tones D, G, E, A, the 2nd, 5th, 3rd, and 6th degrees in C major, may be treated as 1st, 4th, 2nd, and 5th degrees in D minor.
>
> III. The tones E, A, B, the 3rd, 6th, and 7th degrees in C major, may be treated as the 1st, 4th, and 5th degrees in E minor.
>
> IV. The tones F, G, C, the 4th, 5th, and 1st degrees in C major, may be treated as the 1st, 2nd, and 5th degrees of F major or F minor.
>
> V. The tones G, C, A, D, the 5th, 1st, 6th, and 2nd degrees in C major, may be treated as the 1st, 4th, 2nd, and 5th degrees in G major or G minor.

11 Zarlino speaks of regular and irregular degrees for cadences within each of the twelve modes; many cadences require the use of an artificial leading tone—i.e., *musica ficta*. Theorists of the long eighteenth century, such as Henry Purcell, speak of cadences on various degrees of the major and minor scales (Purcell 1694, 155–56). Schenker introduces the term *Tonikalisierung* ("tonicization") in *Harmonielehre* (Schenker 1906, 337ff.).

> VI. The tones A, D, B, E, the 6th, 2nd, 7th, and 3rd degrees in C major, may be treated as the 1st, 4th, 2nd, and 5th degrees in A minor.
>
> (Sechter 1853, 121–22; translation modified from Sechter 1871, 130)

This passage describes how each of the seven diatonic degrees, or *Stufen*, of C major may be treated temporarily as other degrees of other keys, without ceasing to be degrees in C major. This idea underlies Sechter's theory of chromaticism, which holds that every chromatic chord is based on some diatonic chord. To regard chromaticism as having a diatonic basis, rejecting the chromatic scale as an independent construct, has a long history in Viennese theory. Emanuel Aloys Förster (1748–1823) rejected Vogler's claim for a chromatic scale for the same reason that Sechter rejected it: because every chromatic note—especially one that forms part of a chord—may be regarded as a diatonic note in a related key (Förster 1804, 37–39; Sechter 1853, 119–21).

Example 1.4 (3) shows Sechter's chromatic principle in practice. The first progression, entirely diatonic, is another Sechter chain; I have added the Roman numerals. Beneath it is the same progression modified by chromaticism. The chords on E and D, degrees III and II respectively, have become secondary dominants, but there is no change of key: E and D remain the third and second degrees of C major. Schenker would have labeled these chords III♯ and II♯; Schoenberg, in his later years, would have labeled them ~~III~~ and ~~II~~ (Schoenberg [1948] 1969). Sechter rarely uses Roman-numeral labels in his chromatic examples, but he describes the harmonic step-progression of each example—what Schenker would later term its *Stufengang*—in his prose.

Example 1.5 (4) is organized by Sechter as a theme with variations.[12] The "theme" is a progression of eight diatonic triads in C major, written in whole notes. The fundamentals move by Sechter's favored intervals of fifths and thirds. In variation 1, each triad is extended by means of its own dominant, a secondary dominant. C major appears in bar 5 not as tonic but as the dominant of F major. In variation 2, each triad is extended by means of its own subdominant, a secondary subdominant. In the penultimate bar, C major appears as the subdominant of G major; the progression in this bar should be read locally not as V–I–V in C but as I–IV–I in G. In variation 3, each main triad is extended by a complete cadential progression, I–IV–II–V–I. In variation 4, finally, the entire eight-chord progression, reduced to eighth notes, is applied to each main triad in turn; the same progression unfolds simultaneously at eighth-note and whole-note levels. Sechter emphasizes that each variation remains in the key of C major throughout, despite the local tonicizations.

The fundamental harmonies in Sechter's variations are not composed out by passing or neighboring motion, as they were in Example 1.3. Instead they are extended by means of closed harmonic progressions, progressions that begin and end with a local

12 Sechter's variations are discussed by Morgan (1978, 89–92).

tonic. Variations 3 and 4, as already noted, extend each triad with a complete cadential progression. In the early 1920s, Schenker began to call such a complete progression a "circle" or "circuit" of harmonic degrees; Schenker's term is *Stufenkreis*. For Schenker, a *Stufenkreis* usually begins and ends with the tonic, but he also describes V–I–IV–V as a *Stufenkreis* (Schenker 1921–24, 10: 11; Schenker 2004–5, 2: 135). Schenker used this term for only a few years, but during those years he published the later issues of *Der Tonwille* and the first two volumes of *Das Meisterwerk in der Musik*. During these same years, his term for the V in a I–V–I progression was "upper-fifth divider" (*Oberquintteiler*), a term he uses to distinguish a tonic-extending V from a cadential V; his term for the IV in a I–IV–I progression was "lower-fifth divider" (*Unterquintteiler*). He eventually dropped "lower-fifth divider," almost certainly because a triad does not contain its own subdominant as a pitch. He retained the concept of "upper-fifth divider" because a triad *does* contain its own dominant as a pitch. The upper-fifth divider acts, in Oswald Jonas's words, as the triad's "joint"—articulating the triad, rendering it mobile, and assisting in its composing-out (Jonas [1934] 1982, 44–46; see also Cadwallader and Gagné 2016).

One might ask why Sechter never uses labels such as V/V for secondary dominants. It would be far more remarkable if he had used them. Although secondary dominants had been described by earlier Roman-numeral theorists, including Gottfried Weber (who called them *Wechseldominanten*), compound Roman numerals such as V/V were not introduced until the twentieth century. The earliest example that I have found is in an American textbook from 1913; its author, the composer John Mokrejs, adapted Hugo Riemann's symbol for secondary dominants, [D], into Roman-numeral terms (Mokrejs 1913).[13]

Sechter's Roman numerals are all upper-case, like Vogler's, but their meaning is subtly different. Vogler's Roman numerals are minimally abstract: each represents a single pitch class, the root of some triad. By contrast, Sechter's Roman numerals represent not only a harmonic root but also a triad, seventh chord, or ninth chord built on that root (Sechter 1853, 13, 19, 101–2, 116, and passim). In this sense, Sechter's Roman numerals resemble Weber's; yet Sechter's are more abstract. Whereas one of Weber's Roman-numeral symbols specifies the complete pitch-class content of a given chord, much as a figured-bass signature would do, Sechter's Roman numerals specify the pitch class of the root but not of all chord tones above it. When Sechter writes the Roman numeral II, for example, he indicates not a specific chord but what Matthew Brown has termed a *harmonic state*—the state of being on a harmony rooted in the diatonic second degree of some major or minor key (Brown 1986, 14).[14] Chords labeled

13 In his harmony textbook, Allen Forte adopted Riemann's symbol more directly: [V] indicates the dominant of the following harmony, exactly like Riemann's [D] (Forte [1961] 1979).

14 The term "harmonic state" seems to originate with William Benjamin.

by Sechter as II of C major include not only D–F–A and D–F–A–C but also F–A–C and A–C–E. In C minor, II includes both D–F–A♭–C and D–F♯–A♭–C (Sechter 1853, 103–4, 116, 176, 191; see also Damschroder 2008, 171).

Unlike Vogler, Sechter insists that fundamentals must always be diatonic. In Sechter, therefore, one never finds Roman numerals like ♯IV or ♭I, as one does in Schenker.[15] Schoenberg remained closer to Sechter in this respect.

Once one understands Sechter's Roman numerals, one is in a better position to understand Schenker's. Example 1.6 (5), from Schenker's *Harmonielehre*, shows how any root motion by descending fifth may be transformed into a local V–I progression without ceasing to represent the original progression in the original key; all that is required is chromatic raising of the third (usually) and the fifth (occasionally) of the first triad in the pair.[16] The possibilities, in major, are VII–III, III–VI, VI–II, and II–V. (I–IV is omitted because, in major, the tonic triad requires no chromatic alteration to act as V of IV.) At the bottom of the same example, Schenker extends his local V–I progressions to local II–V–I progressions, where the local II triad is always minor and the local V triad is always major. (Here IV does appear as a local tonic.) As in Sechter's variations (Example 1.5), Schenker's harmonies often function simultaneously in a primary key and a secondary, more local key. Schenker's II♯, for example, usually acts as V of V, but it *also* functions as II in a harmonic circuit such as I–II–V–I, I–VI–II–V–I, or I–IV–II–V–I. The label V/V would not capture this sense of being part of a larger progression; like Riemann's symbol [D], it refers only to the next harmony.

In Example 1.7 (5), also from *Harmonielehre*, II appears as a secondary dominant of V; I appears as a secondary dominant of IV. The Roman-numeral progressions I–II–V–I and I–IV–II–V–I are *Stufenkreise*, but they are also progressions approved by Sechter. The *Stufenkreis*, as a concept, might be regarded as an abbreviated form of Sechter's *Kette*.[17]

Example 1.8 (6) shows extended fundamentals in the context of a more complex progression, an incomplete harmonic circuit (IV–II–V–I) followed by a complete circuit (I–IV–V–I). The Roman numerals are Schenker's; I have added whole notes as a fundamental bass in some passages. These whole notes help to reveal how some of Bach's bass notes act as passing or neighboring tones (marked P or N in the example) to notes of the fundamental chord.[18] As in Sechter, the rhythm of Schenker's Roman nu-

15 Apparent counterexamples in Sechter (1871), such as the table on p. 107, were added by the translator, Carl Christian Müller.

16 This table, like many tables and examples in *Harmonielehre*, is omitted from the English edition. Some examples in the English edition appear without their original annotations. For both reasons, the German original must be regarded as the only adequate version of *Harmonielehre*.

17 Schenker discusses the interpolation of additional descending fifths, up to and including the full *sechtersche Kette*, in Schenker ([1935] 1979, 116–17).

18 In Bach's original, a low F is sustained in the pedal from the first bar of the example (b. 17) through the first quarter of the fifth bar (b. 21).

merals aligns with the meter; fundamentals change almost exclusively on downbeats. This correlation between harmonic progression and meter is an under-appreciated aspect of Schenker's method; it probably derives from Sechter's theory of harmonic-metric correlation (see Caplin 1980). Example 1.8 also includes the chromatic fundamentals ♭II and ♯IV, forbidden in Sechter's theory. Sechter probably would have given the Neapolitan sixth chord a fundamental of F, extending the previous IV harmony. He certainly would have given the chord on F♯ a fundamental of D, regarding the diminished seventh chord as an incomplete ninth chord and keeping its root diatonic (Damschroder 2008, 171 and 200–204).

In his writings of the late 1910s and early 20s, Schenker reveals his allegiance to the fundamental-bass tradition especially clearly. The following passage, translated from the incomplete early version of *Der freie Satz* (1916–18), is revealing:

> The *Stufe* works its greatest influence on the shaping of the bass line. If the bass progresses solely according to the *Stufen*, it will inevitably show the form that I have often shown here for purposes of schematic presentation: it will consist of fifth-steps [sic], third-steps [sic], and second-leaps [sic], and also of leaps that substitute for these. In relation to an upper voice, which moves freely and variously according to the law of composing-out (*Auskomponierung*), the stiffness of such a bass would sound completely unnatural. It is precisely the law of composing-out that grasps hold of the bass line as well and thus answers the law of composing-out in such a way that the bass acts as if it, too, were an upper voice, like the voice that moves above it. And in fact, if one holds fast to the ideal character of the *Stufe* … the voice that appears to us as the bass should be regarded as an upper voice in relation to the ideal *Stufen*, so that the two-voice counterpoint of the outer voices makes up a three-voice counterpoint once the *Stufen* are taken into consideration: the *Stufen* represent the true bass; the two outer voices are upper voices to this bass. Nothing is so conducive to an understanding of the voice leading of free composition than the recognition of the bass as an upper voice in relation to the *Stufen*. If one wishes to account for this precisely and requires a convincing, material embodiment of the aforementioned three-voice counterpoint, one needs only to bring the *Stufen* out from their abstract realm and to play them, for example, on the piano, in a register separate from that of the given bass line—a simple expedient that has the additional advantage of revealing the difference between the *Stufe* and the living bass line even when they happen to coincide in the same tone, i.e., in a tone that is simultaneously a part of the bass composing-out and carrier of the *Stufe*-idea.[19]

19 From the chapter *Von der Auskomponierung* ("On composing-out"). Oster Collection, New York Public Library, file 51, items 42ff.; translation mine. Schenker's references to bass "steps" and "leaps" are based on Sechter's idea that the interval of a second in the fundamental bass represents an abbreviation of two consonant intervals, either a third plus a fifth or a fifth plus a fifth (Sechter 1853, 18–20, 31–34; Schenker [1954] 1980, 236–40).

This passage suggests that Schenker would play the fundamental bass on the piano, in a low register, perhaps while a student played the melody and the literal bass line. In other words, the bass notes that I have added to Example 1.8 are notes that Schenker himself probably added at the piano in real time. In later years, on Hedi Siegel's testimony, Schenker seems to have switched from playing fundamental basses to playing fundamental lines, a promotion at least in terms of register (Siegel 2015, 269).

The discovery that every piece has a fundamental line, or *Urlinie*, is one that Schenker seems to have made around 1918, while he was revising the early version of *Der freie Satz*. It led to a renewed preoccupation with melody and a temporarily diminished concern with bass lines. Hence an analysis such as Example 1.9 (7), from the second issue of *Der Tonwille* (1922), where the melody is much more exhaustively analyzed than the bass. The composition represented is the *Andante* from Mozart's Piano Sonata in A Minor, K. 310. The melody shows, in large note-heads, a series of descending fifth- and sixth-progressions; their beginnings and ends are marked by square brackets above the treble staff. Incomplete square brackets show what Schenker would later term *Gliederungen*, divisions of a linear progression into shorter segments, which might include changes of direction (for example, $\hat{5}$–$\hat{4}$–$\hat{3}$ / $\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$, summing to the fifth $\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$). Small notes in parentheses signify melodic detours.

As we know from the long quotation above (and from the second volume of *Counterpoint*, published in the same year as the analysis of K. 310), Schenker would have regarded Mozart's bass line as an inner voice; the true bass is represented by the fundamentals, which Schenker represents with Roman numerals. In bars 1–8, commas after certain Roman numerals signify points of musical punctuation (corresponding to the ends of slurs in the treble) that are also interruptions in the flow of harmonic circuits.[20] Reading the Roman numerals from left to right, we see: I–V–VI, comma; VI has substituted for a closing I. Then I–II–V, comma; the circuit-ending I is again lacking. A third try: I–V–VI again. Now comes the breakthrough: IV–V–I–IV–V–I, a double circuit of which the first lacks an initial tonic. Later, Schenker would coin the term *auxiliary cadence* to denote a harmonic circuit that lacks an initial tonic (Schenker [1935] 1979, 88–89). That this term refers to the fundamental bass—the Roman numerals—and not to the literal bass line is revealed in Example 1.10 (7), from *Free Composition*, which shows the beginning of the transition in the first movement of Beethoven's Piano Sonata in D Major, Op. 28. Despite Beethoven's stepwise bass lines and inverted dominants, Schenker refers to these II–V–I progressions as auxiliary

20 Schenker uses many more commas in his graph of the finale of K. 310 (Presto), and he uses them slightly differently. Here, Schenker's commas mark moments of musical breath-taking in this short-breathed movement. They also separate *Stufen* that represent apparent retrogressions: bars 1–8, for example, read I–V, IV–I–V. A conversation with Nathan Pell helped to clarify my thinking about Schenker's use of commas in *Der Tonwille*.

cadences. Poundie Burstein was therefore incorrect to equate the terms "auxiliary cadence" and "incomplete transference of the fundamental structure" (Burstein 2005), because there is no hint of a fundamental structure, transferred or otherwise, in Example 1.10.

Example 1.11 (8) shows part of a graph published in 1925 (Bach, Largo from Sonata No. 3 for Unaccompanied Violin, BWV 1005). In his analyses of the mid-1920s, Schenker introduces some important notational distinctions. He encloses certain Roman numerals in parentheses, introducing a sense of hierarchy into the horizontal flow of *Stufen*. In this example, the Roman numerals enclosed in parentheses at level c) are precisely those that disappear at level b): these are elaborating harmonies, not structural ones. The label *Oberquintteiler*, or "upper-fifth divider," at levels c) and a) similarly denotes elaborating triads. Interestingly, the upper-fifth divider in level a) is a minor triad, an apparent II of F major, dividing the V triad at its fifth, G.

The most interesting distinction in Example 1.11 is also the easiest to miss. Schenker's strings of Roman numerals show nothing but root-position triads and seventh chords. The only Arabic numerals that appear next to a Roman numeral, as a superscript, are 3 and 7, indicating the third and seventh of some root-position chord. All other Arabic numerals on the page are either *Urlinie* designations (distinguished by the familiar carets) or figured-bass numerals that lie near, *but are not affixed to*, the Roman numerals. Where Schenker writes $\frac{6\text{–}5}{4\text{–}3}$, for example, the Arabic numerals are not part of the Roman-numeral label; they are to be read separately from it. The designation "V^6_4" for example, is not a chord label for Schenker. It represents, rather, the juxtaposition of a Roman numeral, indicating a fundamental-bass note, and two figured-bass numerals, indicating voice leading above the fundamental. John Rothgeb, in an article on undergraduate pedagogy (Rothgeb 1981), has argued for just such a separation of Roman numerals from figured-bass numerals.

As late as the *Five Graphic Music Analyses* (Schenker [1932] 1969), Schenker's Roman numerals represent fundamental-bass analyses, not labels for specific chords in specific inversions. Example 1.12 (9) shows excerpts from Schenker's graphs of two Chopin etudes, nos. 8 and 12 from Op. 10. The harmonies that Schenker designates as modifications of II are not in root position; in both cases, the actual bass note is the chordal third. Roman numerals, with chromatic alterations, represent the fundamental harmonies. This explains why the Roman numerals are all written as if the chords were in root position. As late as 1932, a mere three years before his death, Schenker is still a fundamental-bass theorist.

Although they were published late in Schenker's career, Examples 1.10 and 1.12 do not represent Schenker's final thoughts on harmony. They are vestiges of an earlier way of thinking, of a time when he still played fundamental basses on the piano. The beginning of a change may be detected in the second volume of *Das Meisterwerk in der*