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J. S. Bach's Modal Compositional Practice in the Chorale Preludes for Solo Organ: A Schenkerian Perspective

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Graduate Program in Music

A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy

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J. S. Bach’s Modal Compositional Practice in the Chorale Preludes for Solo Organ:  
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by

Michael Fitzpatrick

Graduate Program in Music

A thesis submitted in partial fulfillment 
of the requirements for the degree of 
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The School of Graduate and Postdoctoral Studies 
The University of Western Ontario 
London, Ontario, Canada

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Abstract

This dissertation proposes a Schenkerian perspective of J. S. Bach’s modal compositional practice in his chorale preludes for solo organ. It develops two major themes: first, a viable framework for reconciling Schenker’s theory of tonality with the kind of composition that Bach’s modal music exemplifies (chapter 3); and second, a definition of Bach’s modal compositional practice in the chorale preludes as revealed through analysis of the repertoire (chapter 4). Additionally, the dissertation explores the pertinence of traditional modal theory to Bach’s modal music (chapter 1), confronts Schenker’s evaluation of modal composition (chapter 1), and responds to other scholarly work in this area (chapter 2).

In advancing a Schenkerian interpretation of Bach’s modal compositional practice, my approach aims to reconcile rather than to adapt. Instead of altering Schenkerian theory or offering an exclusively tonal view of Bach’s modal music, I define a space within Schenkerian theory that can accommodate this repertoire. I remain faithful to the principles of Schenkerian theory but stretch their scope beyond the borders of tonality. To accomplish this, I argue that the Ursatz is best understood as an abstract prototype of tonality, and I elaborate Matthew Brown’s expression of Schenkerian theory as a set of law-like generalizations of tonal contrapuntal and harmonic behaviour.

Rather than adopting an a priori idea of modality, I define Bach’s modal compositional practice by the musical behaviour that the chorale preludes exhibit as revealed in analysis and through the Schenkerian perspective. To this end, I offer original analyses of five modal chorale preludes: “Ach Herr, mich armen Sünder,” BWV 742,
from the *Neumeister* collection; “Nun komm, der Heiden Heiland,” BWV 599, “Lob sei dem allmächtigen Gott,” BWV 602, and “Komm, Gott Schöpfer, heiliger Geist,” BWV 631, from the *Orgelbüchlein*; and “Kyrie, Gott Vater in Ewigkeit,” BWV 669, from *Klavierübung III*. I show that in the modal chorale preludes, despite the multiplicity of available options, Bach uses only seven distinct background patterns divided among three modal categories. The musical content of these modal backgrounds and the tonal behaviour of the foreground and middleground structural levels define Bach’s modal compositional practice.

**Keywords:** J. S. Bach, Bach, Heinrich Schenker, Schenkerian theory, Schenkerian analysis, mode, chorale, chorale prelude, organ, music theory, music analysis
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Introduction

Johann Sebastian Bach devoted his professional life to serving the musical needs of the Lutheran ecclesial community. Consequently, a significant portion of his compositional output is oriented toward the Lutheran liturgy of the time; and as such, it invariably incorporates the chorale. Indeed, chorale melodies weave their way like an omnipresent, unifying strand throughout the cantatas, passions, and chorale preludes for solo organ. Bach’s music reveals, furthermore, that he did not use chorale melodies merely in deference to the liturgical requirements within which he worked. The elaborate complexity of his chorale settings, his seemingly inexhaustible inventiveness in harmonizing a single melody in different ways, and the presence of chorale melodies at deep levels of structure in his music all indicate that Bach found in the chorale a rich source of musical inspiration.

Even though Bach’s music is generally tonal, a notable subset of his compositions on the chorale behave in a way that is difficult, if not impossible to reconcile with normative tonal contrapuntal and harmonic procedures. Consider, for example, the two brief chorale preludes for organ (BWV 730 and 731), reproduced in example 1 below, which set the chorale melody *Liebster Jesu, wir sind hier.*

1 For example, the Riemenschneider compendium of Bach’s harmonized chorales includes nine different settings of *Herzlich tut mich verlangen* (Bach 1941, nos. 21, 74, 80, 89, 98, 270, 286, 345, 367). Bach’s chorale preludes for solo organ also contain many instances of a single chorale melody treated in several different ways. Papillon 2006 presents an index of all the chorale melodies Bach set and their locations within his works in all genres.

2 See Schenker’s analysis of the opening chorus of the *St. Matthew Passion* in the tenth issue of *Der Tonwille* (Schenker 2005, 127–34). I discuss this analysis briefly in chapter 4. See also Stern 1990b.

3 This chorale melody appears to have been a favourite of Bach’s. He set it for organ six separate times (Papillon 2006, 62). In both the settings reproduced in example 1, the chorale melody is in the highest voice. In BWV 731, Bach adorns the chorale melody with florid ornamentation, while in BWV 730, only the third phrase of the chorale melody is ornamented.
Example 1. *Liebster Jesu, wir sind hier*

a) BWV 731 (*Bach-Gesellschaft*, vol. XL, 77)
b) BWV 730 (Bach-Gesellschaft, vol. XL, 76)
The first setting, BWV 731, is unambiguously tonal: nothing about the music contradicts normative tonal procedure. The second setting, BWV 730, however, deviates from this norm. In the penultimate measure, beat four, Bach abruptly disrupts the prevailing tonal sense by using a root-position D-minor triad\(^4\) to harmonize A\(^4\), \(^\underline{2}\), immediately before the final G-major triad, which is elaborated through the last measure. Of course, in a tonal composition, one would expect a D-major triad, the major dominant, in place of Bach’s D-minor. As it stands, this D-minor triad conflicts with its surroundings and belies the seemingly secure G-major tonality of the first eight measures of this brief chorale prelude.

One could devise several tonal explanations of this music, but each solution is unsatisfactory. First of all, one might say that this piece contains only a part of a larger tonal harmonic progression that is completed by music to follow. In this interpretation, the final G-major triad would presumably be a dominant and the following music would begin in C major. Though this may be a tempting solution to some, I believe it is both problematic and simplistic to explain this unusual harmonic design by appealing to a hypothetical situation. Alternatively, and perhaps least successfully, one might suggest that the harmonic structure ends with the G-major triad on beat two of the penultimate measure, and the rest of the music prolongs this final tonic. This interpretation clearly contradicts many facets of the compositional design, and it ignores the final two notes of the chorale melody. Finally, one could argue that the chorale prelude is in the key of C

\(^4\)Note that the bass note, D\(^3\), is in the middle staff instead of the lowest staff.
major and ends on the dominant; but, this solution does not genuinely solve the problem, since the music under this interpretation still deviates from the tonal norm.

Rather than settling for these types of unsatisfactory explanations, many would attribute the kind of musical behaviour in Bach’s setting of *Liebster Jesu, wir sind hier* to the modal character of the chorale melody. Due to their age and origins, most chorale melodies are modal in design, and it seems plausible that Bach would sometimes incorporate elements of modal compositional language into his chorale settings. In this case, we could surmise that Bach wished to emphasize a Mixolydian quality of the melody by using the diatonic 7 of the Mixolydian mode, F♯ in this case, which lies a whole-tone below 1, G, and produces a minor triad on 5, i.e., D–F♯–A. Many would describe the final cadence of this music, then, as a Mixolydian cadence or a Mixolydian harmonization.

Still, the endeavour to understand this music cannot end here. Invoking modality and mode immediately raises a host of questions. What is modality? How are the concepts of mode and modality relevant in the eighteenth century when music theory and composition had shifted irrevocably towards tonality? What constitutes a modal harmonization? How is Bach’s music modal? How can the setting of *Liebster Jesu wir sind hier*, BWV 730, be considered modal since only the final cadence deviates from the tonal norm? These questions, and any number of others like them, are highly

---

5 I review the terminology and concepts of traditional modal theory in chapter 1.
6 Some scholars, however, have been satisfied with simply invoking mode to explain irregularities in Bach’s chorale preludes for organ, and they offer no further justification for the claim. For example, both Russell Stinson (1996, 105) and Peter Williams (2003, 244–45) take this approach as they discuss the setting of “Lob sei dem allmächtigen Gott,” BWV 602, from the *Orgelbüchlein* collection of chorale preludes. I analyze this chorale prelude in chapter 4 of the dissertation.
problematic\(^7\) and, to date, have been addressed only a handful of times in published scholarly literature.

This dissertation presents a new method for approaching the long-standing problem (Anson-Cartwright 2007, 283) of interpreting the presence of non-tonal musical language in Bach’s compositions on the chorale. Through an analysis of the repertoire, I define Bach’s modal compositional practice in the chorale preludes for solo organ.\(^8\) I answer how Bach’s music is modal by revealing the unique musical behaviour and structure that characterizes his modal compositional practice. Importantly, I have restricted my study to the modal chorale preludes for organ; and as such, my conclusions do not apply directly to the SATB chorale harmonizations or to chorale settings of any other genre or type. Even though the theoretical framework and methodology I present are in principle extendible to other modal chorale settings, the musical evidence reveals that the SATB harmonizations in some cases behave differently than the chorale preludes for organ.\(^9\)

To explain Bach’s modal compositional practice in the chorale preludes, I adopt the theoretical and analytical perspective of Schenkerian theory. Since Schenkerian theory is a theory of tonality, it may seem counterintuitive to bring it to music that is not essentially tonal in design. I believe, however, that using Schenkerian theory to

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\(^7\) William Renwick has observed that deciphering how modal musical language operates in Bach’s music is a “thorny topic that resists to the utmost analysis according to norms of harmonic interpretation” (1997, 266).

\(^8\) As mentioned above, Bach’s music is generally tonal: tonality should be the default position with respect to his music. Bach’s excursions into modal writing are limited and always occur in the context of setting chorale melodies.

\(^9\) In the course of the dissertation, for example, I uncover patterns of behaviour pertinent to the chorale preludes (see chapter 4, example 4.1.4) that exceed those that Lori Burns (1995) finds in the SATB harmonizations (see chapter 2, examples 2.2.1–2.2.4).
investigate this repertoire is both natural and appropriate. In the first place, Schenkerian theory is an attractive choice since it is an explanatory system that provides well-defined, systematic reasons why music behaves as it does. Traditional modal theory offers no such rewards; and, therefore, Schenkerian theory fulfills the need to find a powerful theoretical framework within which to understand Bach’s modal chorale preludes. More importantly, however, Schenkerian theory is appropriate for this repertoire since its original purpose is to explain the kind of compositional technique that Bach uses: in his modal compositions, Bach employs the same hierarchical integration of harmony and counterpoint that characterizes his tonal composition. Since Schenkerian theory and Bach’s modal compositional technique are founded on the same principles, no essential incompatibility between them needs to be overcome or explained away, as would be the case if one were to apply Schenkerian theory to Renaissance music. Bach’s modal compositional technique is substantively different from polyphonic practice of the sixteenth century and earlier eras.

Clearly, however, one cannot bring Schenkerian theory to modal music without qualification. Since it is a theory of tonality, Schenkerian theory contains elements that are incompatible with non-tonal composition: the Ursatz, for example, unequivocally excludes musical structures like BWV 730 that do not conclude with an authentic tonal

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10 Indeed, there is no theoretical and analytical method for investigating modal composition that is analogous to the tools developed for other repertoires, e.g., Schenkerian theory, pitch-class set theory, and transformational theory.
11 Furthermore, as chapters 3 and 4 describe, Bach continues to use tonal musical language within his modal compositions at the foreground and middleground structural levels.
12 Since Schenkerian theory is compatible with Bach’s compositional technique, we need not concern ourselves with the troublesome issues that inevitably arise whenever we apply a particular theory to a repertoire other than that for which the theory was developed. For example, significant methodological problems and the dangers of anachronisms and inaccuracies present serious pitfalls to applying Schenkerian theory to polyphonic compositions from the Renaissance and earlier. See Bent 1998 and Christensen 1993 for general and informative discussions of this issue.
We may find two solutions to this problem: either one alters or revises Schenkerian theory to modify or eliminate those elements that cannot accommodate non-tonal musical behaviour; or, one leaves the theory intact but defines a space within it where non-tonal compositional techniques can coexist with its fundamental tenets. I advocate the latter approach, and I believe that we may find such a space within Schenkerian theory. Instead of revising the foundational elements of the theory, locating this space involves using these elements as they are but stretching, or extending their application in a manner consistent with Schenker’s original formulation. We might say that this process involves pursuing the implications that Schenker’s view of musical structure holds for exploring repertoire other than the corpus of common-practice tonality that he considered. The result is a uniquely and authentically Schenkerian view of Bach’s modal chorale preludes: an interpretation that reconciles Schenkerian theory and Bach’s modal compositional practice.

In chapter 1, I review the terminology and concepts of traditional modal theory. I argue that these terms are culturally constrained, pre-analytical assertions meant to form a

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13 It is important, therefore, to make a distinction between Bach’s compositional technique and the constitutive elements of musical structure that he uses. We might express the distinction in this way: compositional technique is the manner in which a composer treats the structural elements of the composition. As a result, we may say that Bach retains a compositional technique, i.e., the hierarchical composing-out of Stufen, that is compatible with Schenkerian theory, while, at the same, the constitutive elements of his music may be incompatible with Schenkerian theory. I explain in chapter 3 how we may make this assertion without undermining Schenker’s definition of composing-out.

14 These are the Ursatz, structural levels (Schichten), and voice-leading transformations (Stimmführungsverwandlungen).

15 I believe that Matthew Brown’s (2005, 171–202; 2004/2005; 2002) work with Debussy’s music exemplifies this approach. For an introduction to the issue of extending Schenkerian principles beyond their original borders, see Brown 2005, 171–208. Naturally, this project is only viable with music that is susceptible to a Schenkerian perspective in the first place. For example, one must seriously question whether one could extend Schenkerian principles to post-tonal music or, as mentioned before, sixteenth-century polyphonic music. See Matthew Brown’s discussions of these issues (2005, 162–70, 202–08). In chapter 3, I specify the features required for pre-tonal music to be susceptible to the Schenkerian perspective.
taxonomy for grouping monophonic melodies; and as such, traditional modal theory brings no significant insights to Bach’s modal compositional practice. This section of the chapter stresses the need to find another theoretical perspective to investigate Bach’s modal chorale preludes. Chapter 1 also reviews Schenker’s negative commentary on modal composition in general, as found in the Neue musikalische Theorien und Phantasien series, and his understanding of how this repertoire fits into his teleological view of music history as a progression toward tonality. As a whole, this chapter establishes the preliminary framework from which my study arises.

Chapter 2 is a critical assessment of the scholarly literature discussing Bach’s modal chorale settings. I respond to work by David Neumeyer (1987, 1989, 1990; Neumeyer and Tepping 1992), Lori Burns (1991, 1993, 1994, 1995), and William Renwick (1992, 1997, 2006). Neumeyer and Burns propose methods for analyzing Bach’s modal SATB chorale harmonizations, and Renwick examines several chorale preludes for organ that incorporate both modal and tonal elements. Each of these authors adopts a Schenkerian perspective with varying degrees of fidelity to the original conception; and consequently, their work relates directly to my own. This second chapter, then, both clarifies some of the specific problems inherent to this study and distinguishes my own work from scholarly precedent in this area.

In chapter 3, I establish the theoretical framework that permits a reconciliation of Schenkerian theory with Bach’s modal compositional practice. Building on work by William Pastille and Matthew Brown, I describe how the epistemological structure of Schenkerian theory contains concrete implications for explaining the particular kind of
modal composition that Bach’s chorale preludes exemplify. Once again, I endeavour to remain as faithful as possible to Schenkerian theory, and I do not propose any radical revisions of its fundamental concepts. Instead, I use the theoretical perspective that Schenker expounds in *Der Tonwille* to explain the contrapuntal and harmonic structure of Bach’s music.

Finally, chapter 4 presents the practical application of the theoretical framework established in chapter 3 by offering original analyses of five modal chorale preludes: “Ach Herr, mich armen Sünder,” BWV 742, from the *Neumeister* collection; “Nun komm, der Heiden Heiland,” BWV 599, “Lob sei dem allmächtigen Gott,” BWV 602, and “Komm, Gott Schöpfer, heiliger Geist,” BWV 631, from the *Orgelbüchlein*; and “Kyrie, Gott Vater in Ewigkeit,” BWV 669, from *Klavierübung III*. In addition to the analyses, I discuss the general features of this repertoire as interpreted through the Schenkerian perspective. These features are the musical behaviours that define Bach’s modal compositional practice: they answer how and why Bach’s music is modal.

The study presented in this dissertation is a unique and new look at some perennial problems. It proposes a novel explanation of Bach’s modal compositional practice in the chorale preludes for organ, and it continues the process of searching for the limits and explanatory capabilities of Schenkerian theory at the same time as it refines our understanding of its concepts. My work also begins to address the significant gap in scholarly literature that has generally neglected any extended analytical studies of Bach’s chorale preludes.

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16 As I address in chapter 2, music theorists have pushed the boundaries of Schenkerian theory from the very beginnings of its practice.
Chapter 1

Modal Theory and Practice: Terminologies, Concepts, and Schenker’s Reception

Introduction

This chapter assesses the relevance of traditional modal theory both in general and to the investigation of Bach’s modal compositional practice through a Schenkerian theoretical and analytical perspective. I divide it into three sections: the first introduces the principal concepts and terminology of modal theory and highlights the problematic character of sixteenth-century theories of polyphonic modality; the second examines Schenker’s critical reception of modal compositional practice as found primarily in the \textit{Neue musikalische Theorien und Phantasien} series;\(^1\) and the third briefly contextualizes these criticisms within Schenker’s view of music history.

At least a cursory knowledge of traditional modal theory and terminology is needed when approaching Bach’s modal chorale preludes for organ. Naturally, one should be aware of the salient features of the chorale melodies that Bach chose to set as \textit{cantus firmi} since the designs of these melodies partly determine Bach’s compositional choices. On the other hand, a real danger exists in straying too far off course into this topic. The primary source of this danger is the difficulty of speaking succinctly about modal theory in anything besides the most general terms. From the fifteenth to the eighteenth centuries, we find a steady stream of treatises discussing modal theory, but unfortunately, among the common ground that exists we more frequently encounter significant dissimilarities.

\(^1\) Schenker’s \textit{Neue musikalische Theorien und Phantasien} series includes \textit{Harmony} (1954), \textit{Counterpoint} (2001), and \textit{Free Composition} (1979). I consistently cite the English translations of these works except when reference to the original German edition is needed. See the bibliography for the details of the original publications.
among them as musical thinking evolves historically and contemporaneous authors espouse opposing opinions and agendas. We even encounter today a real difficulty in defining the term “mode” itself as the authors of treatises, particularly in the sixteenth-century, frequently conflated distinct theoretical concepts under that single term. The reader, therefore, should not expect here an exhaustive discussion of modal theory in all its guises and nuances. Such an account is the subject of a different investigation and is readily available in publication.3

Furthermore, the vast majority of the minutiae of modal theory is no doubt irrelevant to Bach’s compositional practice simply because of historical stylistic change.4 One doubts that much material pertinent to Bach’s music exists in treatises by Tinctoris or Gaffurius, for example. By Bach’s time explicitly modal composition was a rarity outside of chorale settings or music based on chorale melodies,5 and music-theoretical thought had largely shifted towards tonality and its twenty-four keys by the 1720s.6 As such, we

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2 See Judd 2010. The problem of accurately defining “mode” is not limited to the sixteenth-century either. Harold Powers laments that twentieth-century studies concerning modal theory have indulged in such terminological laxity that the term “mode” is no longer useful in musical scholarship: “We use a modal term or name at one moment for our own referential convenience, in the next moment with reference to some medieval or Renaissance theorist, and at yet another moment to refer to some manifest compositional representation of a member of an octenary or dodecachordal modal system. The terms “mode,” “modal,” and “modality,” in fact, have come to be used so broadly and so loosely that they have lost their usefulness for musical scholarship of many kinds, not just for Renaissance polyphony, but just as egregiously in discussions of musics outside the sphere of European art music” (1992, 12). Scholarly discourse surrounding mode is surely better today than when Powers wrote this invective, and this bettering is undoubtedly due to Powers’s own influence. More recent publications also suggest (e.g., Wiering 2001 and Bent 2002) that much work still remains to refine our understanding of mode and modality.

3 See Powers et al. 2012.

4 This is not to say, however, that all stylistic features of modal compositions, particularly sixteenth-century compositions, are equally irrelevant to Bach’s music or to the Baroque period in general. For a discussion of the influence of sixteenth-century styles of composition, or stile antico, upon Bach’s music, see Wolff 1968, and Wolff 1991, 84–104.

5 As William Renwick (1992, 55) points out, however, Georg Philipp Telemann’s XX kleine Fugen (Hamburg, 1731) is a rare example of eighteenth-century modal composition not based on chorale melodies.

6 Several theorists continued to discuss modal theory in the eighteenth century. For a discussion of these, see Lester 1989, 133–48.
cannot pin down a particular eighteenth-century compositional practice or theoretical framework that might explain Bach’s procedure when setting modal chorale melodies: there is no reference guide for Bach’s modal practice.

We do not advance a great deal in the current project, therefore, by exhausting the many intricacies of historical modal theory beyond the most basic concepts and terminologies that persisted in eighteenth-century treatises and have become the common currency of our understanding of pre-tonal composition. Beyond these, I will consider Bach’s music itself as the primary and best source of his modal compositional technique. I will not risk distortion or anachronism by attempting to fit Bach’s modal chorale preludes into a theoretical framework chiefly pertinent to the music of generations preceding his own. Bach’s modal compositions constitute a specialized area of inquiry both within his own oeuvre and in the eighteenth century as a whole, and as such they deserve to be considered primarily as a self-contained unit.

The first part of this chapter also discusses the theoretical and analytical status of modal theory. As many scholars observe, traditional modal theory is in effect nothing more than a taxonomy for classifying and grouping monophonic melodies into specific categories. As such, modal theory in general—despite the opinions of Renaissance music theorists—contains no theoretical or analytical framework capable of explaining the structural behaviour of polyphonic compositions. Instead, historical theories of polyphonic modality represent uniquely enculturated, sixteenth-century, a posteriori interpretations of polyphonic compositions through a theoretical framework originally devised for monophonic music: they say nothing of pre-compositional constraints, a role
filled instead by contrapuntal procedures and conventions that are wholly distinct from modal theory. This problematic character of polyphonic modality argues the necessity of adopting for Bach’s music an analytical approach devised apart from traditional modal theory.

The second section of this first chapter addresses Schenker’s critical response to modal theory and composition and evaluates both its merits and its pertinence to the present project. Schenker’s criticisms of modal composition fall into these three distinct, yet interrelated, categories: those based on Nature, i.e., the natural properties of sound and the overtone series; those based on modal composition’s capacity for successful motivic development; and those highlighting the incongruity between the horizontal and vertical dimensions of musical structure in modal compositions. I group the latter two categories together according to their shared technical character: unlike the axiomatic arguments from Nature, those based on motivic development and the relationship between horizontal and vertical can be directly observed and verified in real musical compositions. The last category in the list, i.e., the conflict between horizontal and vertical, receives the greatest attention since it is the most uniquely Schenkerian in perspective and it pertains most to the work I pursue in subsequent chapters.

Besides the obvious propriety of examining Schenker’s criticisms of modal compositional practice in the context of this dissertation, presenting them in detail here is more than a mere academic exercise. In fact, Schenker’s understanding of modal composition directly informs and shapes how we ought to interpret the results that appear, and what results we might expect, when applying his theory and analytical
methodology to Bach’s modal chorale preludes. This section provides the starting point for understanding the interaction between Schenkerian theory and modal composition.

The final section of this chapter briefly describes Schenker’s contention that the history of musical composition is essentially a teleological process culminating in common-practice tonality. I do not provide an exhaustive account of Schenker’s view of music history; rather, by providing the basic outline of it, this discussion rounds out our understanding of Schenker’s reception of modal compositional practice by placing it in its broader context within Schenker’s thought as a whole. Furthermore, Schenker’s teleological view of music history provisionally explains why he chooses to criticize specific modal compositions as he does. I contend that reading Schenker’s negative reception of modal compositions in light of his overall historical sensibility is fairer to Schenker’s thinking (as revealed in his publications at least) than accusing him of an intransigent, anti-intellectual bias towards tonal music, a charge that effectively undermines the value of his commentary on that repertoire.

1.1. Modes in Theory and Practice

Terminology and Concepts of Traditional Modal Theory

Today, the term “mode” evokes a particular amalgamation of terminology and concepts deriving principally from the twelve-mode theory of Heinrich Glarean and Gioseffo Zarlino, along with earlier modal categories deriving from Gregorian chant that
have remained constant throughout the historical development of modal theory. In general, modes are understood as twelve diatonic scale-types differentiated from one another by their unique distributions of tones and semitones and by their ranges. Within each of these scales, traditional modal theory also identifies certain structurally important pitches, much as we prioritize certain degrees of tonal scales, e.g., the tonic and the dominant, as more systematically definitive than others. I review the twelve modes and their related terminologies and concepts below.

Example 1.1.1 presents the twelve diatonic modal scales along with their universally recognizable, classical Greek names. Each mode is shown at its conventional “white-note” pitch level: the Ionian mode begins on C, the Dorian on D, etc. Despite this presentation, note that we do not today generally think of modal scales as fixed at these specific pitch levels; rather, we normally understand modal scales as intervallically-specified collections, like tonal scales or any other similar collections, that can occur at any pitch level.

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7 See Glarean 1965, and Zarlino 1983. Before Glarean, modal theory only recognized eight modes: the Dorian, Phrygian, Lydian, Mixolydian modes in their authentic and plagal divisions. Glarean added the Aeolian and Ionian modes (see table 1 and the explanation below). Both the eight- and twelve-mode systems continued to exist simultaneously after Glarean and Zarlino, who spread Glarean’s theory to Italy, and the number of the modes remained a subject of debate from the latter half of the sixteenth century onward.

8 For other summaries of the modes and the different terminologies and classifications associated with them, see: Wiering 2001, 1–19; Lester 1989, xii–xix; Meier 1988, 34–46. For a more comprehensive introduction to modal theory and history, see: Powers et al. 2012; Judd 2010; Cohen 2010; Barnett 2010.

9 Regarding the association of these Greek names with modal scales, see Powers et al. 2012.
Example 1.1.1. The twelve modes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dorian</td>
<td><img src="image" alt="Dorian" /></td>
</tr>
<tr>
<td>2. Hypodorian</td>
<td><img src="image" alt="Hypodorian" /></td>
</tr>
<tr>
<td>3. Phrygian</td>
<td><img src="image" alt="Phrygian" /></td>
</tr>
<tr>
<td>4. Hypophrygian</td>
<td><img src="image" alt="Hypophrygian" /></td>
</tr>
<tr>
<td>5. Lydian</td>
<td><img src="image" alt="Lydian" /></td>
</tr>
<tr>
<td>6. Hypolydian</td>
<td><img src="image" alt="Hypolydian" /></td>
</tr>
<tr>
<td>7. Mixolydian</td>
<td><img src="image" alt="Mixolydian" /></td>
</tr>
<tr>
<td>8. Hypomixolydian</td>
<td><img src="image" alt="Hypomixolydian" /></td>
</tr>
<tr>
<td>9. Aeolian</td>
<td><img src="image" alt="Aeolian" /></td>
</tr>
<tr>
<td>10. Hypoaeolian</td>
<td><img src="image" alt="Hypoaeolian" /></td>
</tr>
<tr>
<td>11. Ionian</td>
<td><img src="image" alt="Ionian" /></td>
</tr>
<tr>
<td>12. Hypoionian</td>
<td><img src="image" alt="Hypoionian" /></td>
</tr>
</tbody>
</table>
In the example, two different notations distinguish pitches traditionally considered to be structurally important within each modal scale. The first is the final, identified by a whole-note, which is simply the pitch on which a modal melody typically begins and ends, even though irregular endings are possible. The second is the repercussio (alternatively named the “tenor,” “reciting tone,” or “dominant”), distinguished by a diamond-shaped note. The identification of this particular pitch originates in the classification system for the eight psalm tones of Gregorian chant. In Gregorian psalmody, the majority of each psalm verse is sung on a single pitch, the repercussio, which is surrounded by various formulaic initial and cadential melodic gestures called differentiae. The identification of the repercussio in a modal scale connects that scale to the appropriate psalm tone that can be paired with chants in that particular mode. The identification of the final also originates from the modal theory classifying Gregorian chants.

The twelve modes in the table are grouped by alternating pairs of coloured and clear cells in the leftmost column. These paired modes share the same final but are distinguished by the repercussio and the overall range, or ambitus, of each scale. For example, the Dorian and Hypodorian modes share the final pitch D; but the repercussio of the Dorian mode is A, while the repercussio of the Hypodorian mode is F. Similarly, the ambitus of the Dorian mode is an octave from D–D´, while the ambitus of the Hypodorian mode is an octave from A–A´. Despite these contrasts, modal theory regards modes with the “hypo” prefix as a different division of its cognate mode. The difference

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10 For a list of the Gregorian psalm tones and their differentiae, see the Liber Usualis, 112–17.
11 The prefix “hypo” derives from the Greek “hupo,” meaning “under.”
in *ambitus* determines whether the mode is authentic or plagal: authentic modes span an octave above the final, while plagal modes span the octave from the fourth below to the fifth above the final. The Hypodorian mode, therefore, is the plagal division of the Dorian mode. Identification of *ambitus* also originates in the modal theory classifying Gregorian chants.\(^\text{12}\)

Regarding the modal scales themselves, we find in modal theory two distinct ways of understanding their derivation. The first views the modal scales as octave species, i.e., a distinct pattern of tones and semitones spanning an octave and fixed at particular pitch levels. Under this system, for example, the Phrygian mode is defined by the intervallic pattern S–T–T–T–S–T–T (“S” meaning semitone, and “T” meaning tone), and the final pitch E. Medieval and later modal theory, however, more frequently derived modal scales from combining unique species of consonant fifths and fourths conceived independently of pitch according to hexachordal solmization. In this system, authentic modal scales are formed by stacking a species of fifth and a species of fourth, while

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\(^\text{12}\) While noting the origins of the terms *final*, *repercussio* and *ambitus*, we must also qualify that the original modes of Gregorian chant are not specific scales like those shown in table 1. Traditionally, Gregorian modes were identified by these three concepts alone, apart from any scalar conception, and they were numbered, one through eight, instead of paired with classical Greek names. Odd numbered modes are authentic, and even numbered modes are plagal. For example, a chant following Gregorian mode 1 has the *final* D, the *repercussio* A, and an approximate *ambitus* of an octave above the *final*; mode 2 has the *final* D, the *repercussio* F, and an *ambitus* spanning the octave from the fourth below to the fifth above the *final*. The numbering of the modal scales in table 1 agrees with the older Gregorian numbering system up to the eighth mode. Similarly, Gregorian psalm tones were numbered, one through eight, and distinguished by their respective *repercussiones* and *differentiae*. The connection of these numbered Gregorian modes to the scale-types seen in table 1 seems to have occurred in the Middle Ages as Medieval theorists interpreted Boethius’s writings concerning the “Greater Perfect System” and octave species (Wiering 2001, 2–7).
plagal scales are formed by shifting the species of fourth below the species of fifth.\textsuperscript{13} Example 1.1.2 below\textsuperscript{14} lists the four species of fifths and the three species of fourths.

Example 1.1.2. Species of fourths and fifths

a) Species of fifths

\begin{center}
\begin{tabular}{c|c|c|c}
1 & 2 & 3 & 4 \\
\hline
re & la & mi & fa \\
\hline
mi & fa & fa & ut \\
\hline
fa & ut & sol & \\
\end{tabular}
\end{center}

b) Species of fourths

\begin{center}
\begin{tabular}{c|c|c}
1 & 2 & 3 \\
\hline
re & sol & mi \\
\hline
mi & la & ut \\
\hline
fa & & \\
\end{tabular}
\end{center}

To derive the Phrygian mode, for example, one would stack, in order, the second species of fifth, S–T–T–T, and the second species of fourth, S–T–T, to create a total intervallic sequence of S–T–T–T–S–T–T. The Hypophrygian mode reverses the order.

Example 1.1.3 illustrates these derivations of the Phrygian mode at its traditional pitch level on E.

\textsuperscript{13} Incidentally, example 1.1.1 above lists neither the authentic Hyperaeolian mode (\textit{ambitus} B–B’, \textit{final} B) nor the plagal Hyperphrygian mode (\textit{ambitus} F–F’, \textit{final} B), the possible thirteenth and fourteenth modes. Glarean rejects these modes since they cannot divide into consonant fifth and fourth species, due to the tritone between B and F. In other words, these two possible modal scales cannot derive from \textit{consonant} species of a fourth and fifth.

\textsuperscript{14} This illustration is based on the following source: Wiering 2001, 8, Example 1.5.
Example 1.1.3.

The Phrygian and Hypophrygian modes as species of fifths and fourths

a) Phrygian mode

The distinct advantage of this theoretical approach, then, is the possibility of transposing modes to different pitch levels. Also, understanding modes as stacked species of fourths and fifths eliminates the difficulty of the inevitable duplication that octave species create.\textsuperscript{15}

To summarize, example 1.1.4 below provides two charts that list the defining features of the Aeolian and Hypolydian modes as discussed so far.

\textsuperscript{15} For example (referring to example 1.1.1) notice that the Hypomixolydian mode duplicates the pitch content of the Dorian mode. This duplication represented a problem for theorists thinking about the modes in terms of fixed octave species. These modes are distinct, however, when derived from stacked species of fourths and fifths that are independent of pitch.
Example 1.1.4. The Aeolian and Hypolydian modes

<table>
<thead>
<tr>
<th></th>
<th>Aeolian mode</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final</strong></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Repercussio</strong></td>
<td>E</td>
<td></td>
</tr>
<tr>
<td><strong>Division</strong></td>
<td>Authentic</td>
<td></td>
</tr>
<tr>
<td><strong>Ambitus</strong></td>
<td>A–A’</td>
<td></td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td>1st Fifth + 2nd Fourth</td>
<td></td>
</tr>
<tr>
<td><strong>Cognate Mode</strong></td>
<td>Hypoaeolian (plagal)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Hypolydian mode</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final</strong></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Repercussio</strong></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Division</strong></td>
<td>Plagal</td>
<td></td>
</tr>
<tr>
<td><strong>Ambitus</strong></td>
<td>C–C’</td>
<td></td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td>3rd Fourth + 3rd Fifth</td>
<td></td>
</tr>
<tr>
<td><strong>Cognate Mode</strong></td>
<td>Lydian (authentic)</td>
<td></td>
</tr>
</tbody>
</table>

These concepts and terms form the common currency of current scholarly discussion of traditional modal theory. Again, I stress that this presentation of modal theory is a general, almost idealized version that omits the vast subtleties and minutiae we encounter between different theorists, composers, geographical locations, and historical eras.\(^{16}\) I do not discuss these since the majority of them are irrelevant to the focus and scope of the project at hand. One further element of sixteenth- and seventeenth-century German modal theory, however, deserves mentioning because of its historical and geographical connections to J. S. Bach: modal cadence systems.

Along with discussions of traditional modal terminology and categories, as described above, German theorists of the sixteenth and seventeenth centuries often

\(^{16}\)Jessie Ann Owens (1998, 186) has described the perspective on modal theory I have summarized as “neo-modal,” suggesting by this term that it, while containing certain elements of historical modal theory, is an approximation of something that is far more complex and variegated.
included tables of possible cadences for each mode. In an appendix to her monograph, Lori Burns (1995, 187–218) provides a detailed summary of these cadence systems along with transcriptions and explanations of their contents. Tracing the impulse to define modal cadence systems back to Zarlino, Burns then tracks the trajectory of this theoretical focus through the sixteenth and seventeenth centuries in treatises by Johann Andreas Herbst (Musica poëtica, 1643), Wolfgang Caspar Printz (Phrynis Mitilenaeus, oder Satyrischer Componist, 1676), Johann Gottfried Walther (Praecepta der musicalischen Composition, 1708), Johann Philipp Kirnberger (Die Kunst des reinen Satzes in der Musik, vol. 2, part 1, 1776), Daniel Gottlob Türk (Von den wichtigsten Pflichten eines Organisten: ein Beytrag zur Verbesserung der musikalischen Liturgie, 1787), Justin Heinrich Knecht (Vollständige Orgelschule für Anfänger und Geübtere, 1795–98), and Abbé Vogler (Choral-System, 1800).

According to Burns’s summary, these systems typically divide modal cadences into primary, secondary, and tertiary categories depending upon the scale degree in the highest voice, scale degrees 1, 3, and 5 respectively. Additionally, cadences on each of these scale degrees are paired with typical counterpoints in two or more voices. Within these categories, individual authors frequently make their own subdivisions usually based upon the differing degrees of repose and capabilities for structural division. Still other theorists later in the eighteenth century seem to abandon cadential distinctions based upon soprano scale degrees in favour of more harmonically-oriented models defined by

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17 Tables of modal cadence systems are by no means unique to German treatises. I only raise the German tradition in this area for the obvious national connection to J. S. Bach.

18 Note that not all theories of modal cadence systems are this restrictive (Wiering 2001, 23–24).
root progressions expressed with a figured bass line. To illustrate this, let us look briefly at two contrasting examples.

Example 1.1.5 reproduces Herbst’s (Burns 1995, 195) and Kirnberger’s (1982, 331) cadences for the Aeolian mode.

**Example 1.1.5. Cadence systems for the Aeolian mode**

a) Herbst (Burns 1995, 195)

b) Kirnberger (1982, 331)

Herbst’s table organizes the possible Aeolian cadences according to the scale degree in the soprano: the *Principalis* cadences close with 1 in the soprano, the *Minus Principalis* with 5, the *Affinalis* with 3, and the *Peregrinae Clausulae* cadences close with any other scale-degree in the soprano. Herbst also provides typical four-voice contrapuntal paradigms for these cadences (the roman numerals underneath the example are Burns’s additions reflecting the cadential scale degrees in the bass). The example from Kirnberger, however, shows the contrasting approach. Cadential differentiations by
scale degree are absent altogether in favour of a clearly harmonic orientation shown with figured bass lines: indeed, Kirnberger does not add an upper voice at all.

To understand this table, we need first to realize that Kirnberger (1982, 329) addresses only two kinds of modal cadences: the closing cadence and the half cadence. Furthermore, he defines these cadences strictly harmonically: closing cadences for the Ionian, Dorian, Lydian and Aeolian modes consist of a dominant–tonic harmonic motion, like tonal authentic cadences, while closing cadences for the Phrygian and Mixolydian modes exhibit a subdominant–tonic motion. Another possible closing in the Phrygian mode only is a step-wise motion from the subtonic, in either root position or first inversion, to the tonic. Half cadences involve a tonic–dominant type motion, as in tonal theory, and must always incorporate the major-mode dominant. As a result, the Mixolydian and Phrygian modes cannot admit half cadences.19

All of the cadences in Kirnberger’s table, therefore, are closing cadences; and instead of illustrating different possibilities for cadentially supporting the members of the triad built on the modal final, Kirnberger is listing the secondary modal areas to which a composition in the Aeolian mode may digress, or as he says “modulate,” by means of closing cadential progressions around scale degrees in the bass other than the modal final.

19 Neither the Phrygian nor the Mixolydian mode contains a major-mode dominant triad. One cannot, however, alter these triads without compromising the modal identity of the music. Consistently raising 7 (the third of the triad on the dominant) of the Mixolydian mode would effectively produce an Ionian environment since only the interval between 7 and 8 of these modes distinguishes them: the Mixolydian mode has a whole-tone between 7 and 8, while the Ionian mode has a semitone in the same place. Therefore, the Mixolydian mode cannot admit a half cadence in Kirnberger’s system and its closing cadences typically use the subdominant rather than the dominant (1982, 329). In the Phrygian mode, one must raise both 7 and 2 to produce a major-mode dominant, and the modal identity is compromised by two chromatic alterations. Not all chromatic alterations have the same effect, however. For example, the Dorian and Aeolian modes may freely alter their minor-mode dominant triads since these modes differ from the rest by more than the quality of the interval between 7 and 8, specifically, the interval between 5 and 6.
(of course, the first cadence in the table expresses the traditional modal final, A, in the bass). The different durations of the cadences in the table indicate both frequency of occurrence and the usual length of the digression: longer note values indicate greater frequency, and vice versa. For example, Aeolian compositions more frequently digress to Ionian and Phrygian than Lydian or Mixolydian.

Kirnberger, therefore, considers only the first cadence as truly Aeolian in character. The other cadences may exist within a larger Aeolian context, but they are not types of Aeolian cadences themselves. Evidently, this system stands in stark contrast to Herbst’s in which cadences involving a scale degree in the bass other than the modal final are still properly Aeolian. Again, it seems clear that Kirnberger’s reliance on a decidedly harmonic way of theoretical thinking has the greatest influence in shaping his exposition of modal cadence systems. His approach, as a result, represents a significant departure from traditional modal theory which does not incorporate harmonic progression. Kirnberger’s work illustrates the extent to which the line between modal and tonal practices blurred in the transitional Baroque era, and it bears little resemblance to sixteenth-century sensibilities.

Mode: Its Theoretical and Analytical Status

Having reviewed the elements of traditional modal theory, our next task is to reflect upon the theoretical and analytical status of these concepts and of mode in general. As mentioned before, I argue that mode is essentially a taxonomic, pre-analytical theoretical category that has little to offer towards an explanatory analysis of polyphonic
pitch structures. This position is neither unique nor novel; rather, I base this assertion primarily upon the work of scholars such as Harold Powers (1998, 1992, 1981), Cristle Collins Judd (2010, 1998a, 1998b, 1992a), Margaret Bent (2002, 1998), Jessie Ann Owens (1998), and Frans Wiering (2001, 1998). Though these scholars do not discuss the music of J. S. Bach, their reservations (or outright rejection in some cases) concerning the explanatory value of mode for polyphonic music of the fifteenth to the seventeenth centuries directly inform this study. If mode is an unreliable analytical tool for the pre-tonal repertoire of the fifteenth and sixteenth centuries, then it is surely even more so for Bach’s music written at a time when modes no longer formed a part of living compositional tradition.

The terminology and concepts of traditional modal theory—i.e., the final, ambitus, repercussio, etc.—are purely descriptive categories that facilitate the taxonomy of monophonic melodies: they group melodies that share specific characteristics together under the heading of a single mode, and they contain no prescriptive content. This is not surprising considering the origins of modal theory as an abstract theoretical response in the ninth and tenth centuries to a pre-existing body of Gregorian chant transmitted through oral tradition (Powers et al. 2012). Even when traditional modal theory accounts for formulaic melodic configurations, such as the differentiae of the Gregorian psalm tones, it still acts only as an aid to categorizing extant melodies, rather than a set of prescriptive compositional procedures.

One might say that the concepts of traditional modal theory act as minimal markers of the design of monophonic melodies since they provide only the preliminary
information needed before any subsequent analytical activity can occur. Knowing the mode of a melody conveys analogous descriptive parameters as, for example, saying that a monotonous piece of music in G major will contain F♯s (not accounting for internal modulations) and end with a chord consisting of pitches G, B, and D, with G in the lowest voice. While these features certainly provide some minimal indications of G major, they hardly begin to explain the reality of G-major tonality or what we mean when we say that a piece of music is in G major: we need to invoke a supplementary theory of tonality to fill this gap. Knowing that a particular Gregorian chant or a certain chorale melody is Dorian tells us that the last pitch is likely to be D and that the melody will mostly inhabit the pitch-space circumscribed by the first species of fifth and the first species of fourth spanning an octave above the final. Beyond these minimal markers, modal theory does not tell us how a Dorian melody ought to behave within these parameters, much less if an internal structure can even be posited. Furthermore, unlike tonal theories, we find no analogous supplementary modal theory to fill the gap between description and explanation.

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20 Obviously, I do not consider the final, ambitus, and species of modal melodies to be meaningful structural determinants: they are minimal markers that describe rather than explain. To illustrate this point, imagine the following exchange. When asked why a melody is Dorian, one might offer the ambitus and the final as evidence of the Dorian mode. Alternatively, one might ask why a certain melody has a particular ambitus and final. The hypothetical answer would point out that the melody is in the Dorian mode. The result is a circular argument: the Dorian mode is both the cause and the result of the same melodic features. We can contrast this quite easily with Schenker’s theory of tonality, for example. The Ursatz, structural levels, and voice-leading techniques explain why a piece of tonal music exists in the way it does at the foreground since these elements provide specific reasons for the foreground’s behaviour. The foreground does not in turn explain the Ursatz, structural levels, and voice-leading techniques. As soon as we leave abstract and philosophical thinking about modes and look to the practical aim of investigating real music, modes do indeed seem to be defined by the very musical features they seek to explain. This opinion, however, is not universally shared. For instance, Frans Wiering seems to grant modes a certain structural weight: “The modes have evident structural possibilities, for example by providing a final, a hierarchy of cadences, and a set of melodic models...Modes offer tools to create coherence, either underlining the structure of a given text, or providing a structure for textless composition” (Wiering 2001, 122). Unfortunately, it is not clear whether Wiering uses the term “structural” in the same respect as I do, or whether he is speaking on behalf of himself or the beliefs of Renaissance theorists.
No doubt due to the efforts of sixteenth-century music theorists to apply modal theory to polyphony music, the most widespread understanding of the term “mode” seems to be that it describes a global system of pitch organization for fifteenth- and sixteenth-century polyphony—a sort of Renaissance equivalent of tonality.\footnote{Bernhard Meier is an early and influential proponent of this view: “Like our modern tonal systems, the sixteenth-century modes mediate the so-called ‘logical’ tonal coherence of a musical work—its unity in spite of all the variety of the motives which, changing with the entry of each new text phrase, stream by the ear of the listener” (1998, 27).} This view, however, is far from uncontentious. In fact, historical music-theory treatises indicate that applying monophonic modal theory to polyphonic music presents extreme challenges, both for the Renaissance authors who undertook this task and for us. Cristle Collins Judd has even described the application of modal theory to polyphonic music as the “central problem” of Renaissance discourse about music (2010, 364). Simply put, upon careful reading of historical treatises, we find little compelling evidence, despite the assertions of sixteenth-century theorists, that the concept of mode exerted any influence over the large-scale pitch organization of Renaissance polyphony.

Harold Powers has been perhaps the most influential scholar in recognizing the myriad problems surrounding sixteenth-century polyphonic modality. In his well-known article “Is Mode Real?” (1992), Powers answers his own rhetorical question with a qualified negative: while mode as a concept is relevant to Renaissance theoretical discourse, it does not play any structural role in the large-scale pitch organization of Renaissance (and earlier) polyphonic compositions:

In short: the answer to the rhetorical question in my title—“is mode real?”—is “no”: at least, “no” in the sense in which the term mode is customarily used in connection with Renaissance polyphony. A 16th-century piece is not in a “mode” that is part of a “modal system” in a way analogous to the way an 18th-century
piece is necessarily in a “tonality” that is part of the “tonal system.” That is not to say, of course, that a piece of 16th-century polyphony has no tonality. I would certainly assert that 16th-century tonalities do exist, and that they are not 18th-century tonalities; I only urge that they not indiscriminately and unthinkingly be called “modes.” (Powers 1992, 12)

Powers argues that polyphonic modality is an abstract theoretical construction wholly distinct from compositional practice. Discourse about modes in polyphony represents sixteenth-century music theory’s complex philosophizing about music removed from practical compositional means of achieving a large-scale tonal structure. Therefore, we cannot correctly understand Renaissance polyphony to be “in” a mode like tonal music is “in” a key. Essentially, Powers contends that the convergence of polyphonic compositional practice and modal theory in the sixteenth century is an ultimately unsuccessful conflation of two heterogenous categories that modern scholarship must separate anew in order to understand the sixteenth-century musical world:

In short, polyphonic compositional practice and polyphonic modal theory are in principle completely independent of one another, and have a common historical basis only in their primitives, in the underlying tonal system of the Guidonian diatonic. Their convergence in the 16th century needs to be examined in the domains of practice and theory separately, and with different kinds of intellectual tools. (Powers 1992, 21)

To form a better understanding of the theoretical and analytical status of mode in relation to polyphonic compositional practice, I offer now a brief synopsis of Powers’s reasoning.

Powers makes the case that mode plays no role in the large-scale tonal organization of fifteenth- and sixteenth-century polyphony—and consequently no true

22 The term “tonal structure” in relation to music of the fifteenth and sixteenth centuries merely denotes a hierarchical pitch organization of some kind: “Largely popularized by Cristle Collins Judd in the collection of essays she edited, Tonal Structures in Early Music, the term ‘tonal structure’ advocates the presence of large-scale hierarchical pitch organization in music that pre-dates tonality (1998). The term ‘tonal’ is problematic because of its obvious association with tonality, but it has been used deliberately to counter the notion that all pre-1600 music is necessarily modal” (Bain 2008, 197).
analytical function in understanding the tonal structure of this repertoire—with three
different yet interrelated points: first, theorists in the sixteenth-century began to apply a
fully-formed, monophonic modal theory to polyphonic repertoire retroactively, i.e, the
theory predates the repertoire and is applied a posteriori; second, we find little consensus
among sixteenth-century theorists concerning the attribution of modes to individual
polyphonic works; and third, the work of sixteenth-century theorists is not necessarily a
description of common knowledge, but it is instead highly creative and abstract musical
thinking removed from ordinary musicians and composers.

The first element in Powers’s deconstruction of polyphonic modality is the
historical fact that sixteenth-century theorists applied a fully-formed, monophonic modal
theory retroactively to polyphonic compositions. Before Pietro Aron’s 1525 treatise
*Trattato della natura et cognizione di tutti gli tuoni di canto figurato*, discussions of
modes and practices governing polyphonic composition coexisted independently in
theory treatises with virtually no overlap. For Powers, the application of existing modal
theory a posteriori to existing polyphonic compositions represents a “confounding of
theory and practice” (1992, 16), through which a particular repertoire is allegedly
explained with an abstract theory imposed from without. Crucial evidence of this for
Powers is the habit of sixteenth-century theorists to use particular polyphonic
compositions as evidence of their theories, as opposed to deriving a novel theory from
analysis of the repertoire:

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23 Powers notes that the effort to apply modal theory to polyphony certainly began before Aron,
notably in Tinctoris’s *Liber de natura et proprietate tonorum* from 1476, but he maintains that Aron’s work
is the first attempt at a systematic argument for the case.
Neither were they [i.e., Aron’s and Glarean’s theories of polyphonic modality] in any sense empirical or inductive efforts to arrive at truths not yet fully grasped. Very much to the contrary: they are theories complete and fully formed; the tonalities of polyphonic practice are described and interpreted not by analyses of that practice but by instantiations from that practice. (Powers 1992, 21)

The a posteriori, contrived character of sixteenth-century theories of polyphonic modality demonstrates that the terms and concepts of modal theory did not impose pre-compositional constraints upon composers of the repertoire that theorists used to support their perspective. While theories of polyphonic modality may be interesting on a purely speculative level, they do not have much to offer toward understanding the large-scale tonal organization of the music. Polyphonic modality is a theory imposed from without, and theorists forced a given repertoire and a given theory to fit at any cost. Powers’s description of Aron’s theory of polyphonic modality summarizes these points:

Yet a reading of his treatise without presuppositions makes it clear, like Tinctoris, that Aron was by no means merely reporting how things were generally understood to be, how music was being composed “in” modes. Rather, he was trying to reconcile a given repertory (to be found in prints published by Ottaviano Petrucci and Andrea Antico between 1500 and 1522) with a given system (the eight church modes of Gregorian chant theory). He was not telling readers that such-and-such a piece had been composed in such-and-such a precompositionally selected mode. Rather, he was telling them that such-and-such a piece should be assigned to—should be classified under—such-and-such a mode, in each case carefully adducing his reasons for the choice of modal category. His claim that modality is a universal property in polyphony is merely a claim, not a well-known fact, and he knew he had to be able to make and justify a modal assignment for every piece, no matter how far-fetched in some instances, or the whole proposition would fail. (Powers 1981, 433–34)

Sixteenth-century theories of polyphonic modality unduly conflate abstract theory and compositional practice.

Powers’s next point addresses the reality that different sixteenth-century theorists proposed varying criteria for the modal designation of polyphony. Indeed, we often find
complete disagreement among theorists who used different musical features to determine polyphonic modality (Powers 1992, 10–11). Due to the inherent difficulty of applying a monophonic modal theory to an extant polyphonic repertoire, theorists deliberately chose which elements would determine modality, and different theorists settled upon different criteria and offered argumentation to mitigate the arbitrary nature of this choice. Powers argues that this widespread disparity of method and lack of consensus strongly indicates that one cannot find objectively verifiable features of Renaissance polyphony that unambiguously determine a particular modality: mode is unable to explain the large-scale tonal organization of Renaissance polyphony. Once more, the concept of polyphonic modality arises from a confounding of theory and practice by a group of sixteenth-century theorists producing highly creative musical thinking of a distinctly philosophical quality. Sixteenth-century theorists could not even agree on the number of the modes, much less what they were and how they were supposed to have adhered in polyphonic composition.24

Finally, Powers warns us to read and interpret sixteenth-century theorists of polyphonic modality with a healthy dose of caution. We have no reason to believe that important theorists of polyphonic modality such as Glarean and Aron were in any way describing common theoretical knowledge or compositional practice. Powers even suggests that we regard their hypothetical theoretical models in the same light as the

24Wiering attributes the eventual demise of mode in the seventeenth century to the widespread confusion over the concept in the sixteenth century: “Thus, while on the one hand the modes had become an accepted part of polyphonic compositional technique, on the other there was no accepted view of what the modes were. This paradoxical situation could not last very long...But at least as important seems to be that more than sixty years of concentrated thinking about the modes in polyphony had not led to a consensus about what they were. Composers seem to have lost interest in the modes since they were not self-evident even though it was pretended that they were…” (Wiering 2001, 123).
“fancies and elaborations” (1992, 44) of some of the more abstract music-theoretical thinking of our own time:

In reading their [sixteenth-century theorists’] work, however, we must remember that they were theorists; we must treat them with proper respect, as distinguished colleagues from another musical age, not as mere informants. There is neither logical nor historical warrant for adducing writings on mode by such as Aron or Glarean as evidence for how the matter might have been conceived or understood by the many composers whose works they cited so profusely, or by ordinary musicians of the period. Their work is not testimony to common knowledge: quite the contrary, as each made clear more than once during the course of his treatise on polyphonic modality. Their work is creative and highly ingenious theorizing: how things ought to be regarded, not how they were regarded. (Powers 1992, 18)

Once again, we realize that polyphonic modality is not as much a pre-compositional scheme of tonal organization as it is the representation of the particular approach an individual theorist took to the repertoire before him, whether that approach is Aron’s medieval constructions or Glarean’s blending of medieval thinking with classical humanism (Powers 1992, 43). Sixteenth-century theories of polyphonic modality are not points of insight into contemporaneous compositional practice: they are abstract constructions devised by theorists with unique motivations and goals. To reiterate Powers’s main point, we must marshal different intellectual tools to examine the practice of polyphonic composition and theories of polyphonic modality.

Presuming that mode does not provide the key to the tonal organization of Renaissance polyphony,25 the natural question to follow asks what does provide it. One compelling answer is normative contrapuntal conventions and procedures. In her article

"The Grammar of Early Music: Preconditions for Analysis" (1998), Margaret Bent persuasively argues that a structural, dyadic contrapuntal stream organizes Renaissance polyphonic tonality (at least locally) at a foundational, or grammatical level. In other words, dyadic contrapuntal norms constitute the pre-compositional premises for Renaissance musicians, the basic musical language within which they operated. Accurately defining and recognizing the structural dyadic counterpoint, therefore, is also necessarily a pre-analytical constraint for modern investigators of this repertoire: understanding the mechanics of counterpoint and recognizing its operation in Renaissance polyphony is the first step to more global interpretations of the tonal structure. Expressing this, Bent contends that the dyadic contrapuntal stream is an objective preliminary, i.e., something that can be judged as true or false, in relation to analysis in the same way as understanding certain mathematical truths is necessary for comprehending astronomy: Examples of right or appropriate analysis are those that proceed from such objective preliminaries as correct identification of a cantus firmus or of the note-row of a serial composition, the key of a tonal piece, the counter-subject of a fugue, the discant-tenor core of a fifteenth-century song, the model of a parody mass, the resolution of a mensuration canon; and that recognize those things as primary or pre-analytical constraints, either of pre-existent material or of technique...Where the analyst’s premises or statements are of a type that can be judged either true or false, a first level of compositional intent can be assumed that has nothing to do with the “intentional fallacy” of interpretation. Barring occasional disputable cases, such areas are incontrovertible, unlike subsequent acts of interpretation that reflect the analyst’s own biases or concerns and may depart from those of the composer. To understand such fundamentals properly is as essential to correct interpretation of the music as is knowledge of sexagesimal calculation to understanding early astronomy, or knowledge of the relationship of pounds, shillings, and pence to understanding pre-decimal British currency. After that, interpretive editing, performance, and analysis can begin. (Bent 1998, 20)
Contrapuntal procedures alone organize Renaissance polyphony at the grammatical level: if mode has any interpretive role to play, it does so only after one has parsed and understood the music in terms of its structural dyadic counterpoint. Polyphonic modality does not achieve the basic tonal structuring of the music: it is an a posteriori interpretation of a priori contrapuntal facts.

Counterpoint, however, operates locally on a note-to-note basis and, as Bent reminds us, can “tell us nothing directly about long-term goals” (1998, 53). Many scholars have attempted to compensate for this gap without explicitly invoking the concept of mode.26 Perhaps the most systematic and generally applicable of these attempts is Judd’s article “Modal Types and ‘Ut, Re, Mi’ Tonalities: Tonal Coherence in Sacred Vocal Polyphony from about 1500” (1992a) in which she proposes paradigmatic, hierarchical pitch configurations, or “modal types,”27 that organize the tonal structure of Renaissance polyphony on a global level. Her approach is distinctive in its unique blending of concepts from Renaissance music theory and more contemporary sensibilities to long-range voice leading.

While the preceding discussion has problematized the role of mode in achieving an analytical understanding of Renaissance polyphony, we must take care not to conclude that polyphonic modality is essentially meaningless. The key distinctions to make in this regard lie in answering for whom and in what circumstances mode is in fact real.

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27 Judd’s “modal types” should not be confused with Powers’s “tonal types,” his alternative to theories of polyphonic modality. The tonal type of a piece is a combination of its cleffing, signature (i.e., the presence or absence of B♭), and final triad. Powers asserts that these features taken together are the “minimal markers” of its tonal organization. In other words, tonal types, rather than modes, more accurately capture pre-compositional structural decisions. See: Powers 1981; 1992, 9–21. Unlike Powers’s tonal types, Judd’s modal types address long-range contrapuntal structures.
Certainly polyphonic modality was very real to sixteenth-century theorists even if the concept bears little resonance for us today; at the same time, however, we must keep theories of polyphonic modality in their place as historical products of a different time and culture. Powers and others following his lead have expressed this distinction using the terms “etic” and “emic” borrowed from cultural anthropology.\footnote{See, for example: Powers 1981, 1992; Wiering 1998; Bent 1998; Judd 1992a.} Using these terms, we might say that counterpoint and tonal types are etic, i.e., objectively verifiable through external observation, while modes are emic, i.e, inextricably bound to the enculturated experience of those employing them and, therefore, unavailable to the external observer. To put it another way, theories of polyphonic modality are the enculturated (emic) responses of sixteenth-century theorists to an objectively-verifiable (etic) contrapuntal structure of Renaissance polyphony. Any study of mode must keep this distinction at the forefront. When examining theories of polyphonic modality, one is studying an enculturated manner of thinking about music much more than an empirical theory of large-scale tonal organization for Renaissance polyphony. Frans Wiering summarizes the issue elegantly:

Powers answered the rhetorical question “is mode real?” with a well-argued “no.” Yet the answer to this question, while it is valid for many of us with regard to analytical pursuits, cannot apply universally. No doubt Aron, an important source for Powers’s arguments, would be surprised by this conclusion. For him and his contemporaries the “reality” of the modes as such was beyond question. The problem is rather which form this reality assumed under different circumstances.

For the purposes of this article, I would like to rephrase Powers’s question as, “how real was mode?,” taking the emic “musical mind” rather than the etic musical work as a point of reference. (Wiering 1998, 87–88)
Even though mode does not provide much useful analytical information to current study, it does provide a unique and important look into the sixteenth-century music-theoretical thinking, for which the concept had undoubted significance. What is of paramount importance, to reiterate Powers’s point, is to keep mode and counterpoint, i.e., theory and practice, separate and examine them with “different intellectual tools” (1992, 21).

The problematic status of polyphonic modality has concrete implications for an analysis of Bach’s modal chorale preludes. Since modes cannot provide significant analytical information about the tonal organization of sixteenth-century repertoire, we may confidently infer that modes and the terminology and concepts associated with them will have similarly little, if not less, bearing upon Bach’s music written at a time when theories of polyphonic modality were already antiquated and largely irrelevant to contemporaneous music-theoretical thought. In my investigation of Bach’s chorale preludes, then, I do not approach the music with a priori assumptions about the general applicability of modal terminology and concepts as pre-compositional, structural determinants; rather, I let the harmonic and contrapuntal features of the music determine how the music is modal. I do not define any concept of eighteenth-century modality in advance. The polyphonic modal theories of the sixteenth-century illustrate the potential pitfalls of taking the opposite approach. We have no reason to assume that the concepts of modal theory will have any analytical bearing beyond the superficial on Bach’s music; instead, we have every reason to think the opposite.
In a review of Lori Burns’s monograph (1995) on Bach’s modal chorales, William Renwick questions her reluctance to define modality in general, and eighteenth-century modality specifically:

Apart from making distinctions of modality in opposition to tonality, Burns nowhere defines her concepts of mode or modal harmony, and this is the source of later problems. While it is not so difficult to understand modal harmony in twentieth-century music (as used by Vaughan Williams, for example) as diatonicism about a finalis other than that of a major or minor scale, modality in the eighteenth century is a tricky business. Tonality itself had only just been developed, and composers were not necessarily interested in making a specific delineation between modal and tonal elements in their music. Naturally enough, much of this music contains both modal and tonal aspects, since both were the order of the day, whether in the context of the Lutheran or Roman churches. (Renwick 1997, 260)

Even though Renwick’s concerns are important, Burns’s strategy in this case is appropriate, and, like her, I also avoid a definition of eighteenth-century modality.

Somewhat ironically, I believe that my approach in fact answers Renwick’s charge. Since polyphonic modality is a barren concept apart from emic sixteenth-century theoretical experimentation, a definition of modal composition in the eighteenth century must arise from a direct grappling with the music that resists normative tonal explanation: the compositional practice, whether Bach’s or any other composer’s, is itself the definition. Consequently, this approach neutralizes Renwick’s concerns. When we avoid the trap of applying sixteenth-century terms and concepts of polyphonic modality onto eighteenth-century repertoire, we no longer need concern ourselves with defining an arbitrary modal framework and deciding how Bach’s writing may or may not fit within it.

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29 The eventual problems to which Renwick refers include what he considers Burns’s inability to account adequately for the differences between a modal and a tonal harmonization, the effect of a raised leading note on a presumed modal framework that does not contain one diatonically, and whether mixture (i.e., non-diatonic triads) disrupts the interpretation of a piece’s modality (Renwick 1997, 263).
Needless to say, a certain terminological tension inevitably arises from the perspective I have advanced here. If, as I contend, the concepts and terminologies of modal theory are largely irrelevant to an accurate analytical investigation of Bach’s music, one might question the prudence of applying the term “modal” to those chorale preludes that resist tonal explanation. Pragmatic concerns, however, suggest retaining the term “modal” for this repertoire with the caveat that the qualifications I have made in this section will adhere. As I will continue to use it, “modal” in reference to Bach’s music simply indicates a general character of “non-tonality.” Admittedly, this distinction is somewhat crude; but, I intend it to be simply a means for achieving an initial separation of the relevant music within Bach’s oeuvre. I do not leave the definition at this in the end: as mentioned above, I define modality for Bach’s chorale preludes by the music’s behaviour as interpreted through the Schenkerian perspective.

1.2. Schenker and Modal Composition

In his published work, Schenker addresses neither the modal theoretical tradition nor modal compositional practice with any sustained focus. We may find two reasons for this. First, Schenker’s main concern is explaining his unique conception of tonal music, which he privileged as the only natural music system, i.e., manifest in Nature itself and the physical properties of sound. As such, Schenker found little practical use for any kind of non-tonal music apart from negating its artistic value. Indeed, in most of his brief

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30 For this context, I have decided not to coin a new term for Bach’s chorale preludes that resist tonal explanation. Given the precedent for calling these works “modal,” introducing a novel term would create unnecessary complexity.

31 I provide the definition of Bach’s modal compositional practice in chapter 4 where I present the analytical portion of this study.
discussions of modal music Schenker’s primary goal is to contrast it with tonal music and bolster his claim of tonality’s perfection. Schenker never credits modal music with its own intrinsic value: he always uses it as an example of how natural and artistic music does not behave. Second, Schenker’s discussions of modal music ultimately find a larger context within his views concerning music history. Even though Schenker considered music history an important subject for study, he did not devote much attention to it in his publications. As a result, Schenker addresses modal music at least as infrequently as he discusses music history.

Any honest consideration of the interaction between Schenkerian theory and modal music needs to address Schenker’s own comments concerning this repertoire. Besides the obvious reasons for doing so, considering Schenker’s criticisms can in fact can help us both understand and interpret the kinds of voice-leading and harmonic structures we find in modal music when applying Schenkerian analytical techniques to it. Therefore, instead of raising Schenker’s criticisms of modal music as a matter of course and only to dismiss them in the end, a close examination of Schenker’s reasoning can put the challenges inherent in this repertoire into a perspective that directly relates to the ultimate goal of this study, a properly Schenkerian interpretation of Bach’s modal compositional practice.

In this section, I address Schenker’s views about modal music that we find in *Harmony, Counterpoint*, and *Free Composition*. The substance of his argument remains

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32 Schenker comments in *Harmony* that the “old church modes, though they had their undeniable right to existence, were nothing but experiments—experiments in word and fact, i.e., in theory as well as practice—whence our art benefitted especially in so far as they contributed decisively to the clarification, *e contrario*, of our understanding of the two main systems [major and minor tonal keys]” (1954, 59).
mostly consistent throughout, but we find the most detailed treatment of the subject in *Harmony*, the earliest publication of the three. Beginning with *Harmony*, then, I focus this discussion on Schenker’s technical criticisms of modal composition. By technical criticisms, I mean those that address analytically verifiable and demonstrable aspects of musical structure, such as voice-leading patterns and harmonic progressions, in contrast to criticisms based on metaphysical or psychological criteria, such as Nature, aesthetics, or psychology. Within Schenker’s technical criticisms, I also identify two separate categories: those based on Schenker’s early conception of motivic development, and those stemming from the interaction between the horizontal and vertical dimensions of musical structure.

In this chapter, I do not address in detail Schenker’s nature-based criticisms of modal music. As is well known, Schenker argues that tonality is uniquely a natural phenomenon and every other musical system, including the modal system, is unnatural and therefore inferior and inartistic.\(^{33}\) This point is important to note before we move forward: Schenker insists upon evaluating modal music ultimately within the context of tonality, and he interprets his technical criticisms of the harmonic and voice-leading structures of modal music through this lens.

I do not evaluate Schenker’s claim that tonality is given by Nature since it has no practical consequences for our purposes here. On a purely technical level, the coherence of Schenker’s thought does not hinge upon the veracity of the natural argument. What

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\(^{33}\) Schenker devotes the first two chapters in the first section, division one, of *Harmony* to explaining how tonality is rooted in Nature before discussing modal systems in chapter 3 of the same section. Schenker attempts to prove his point by invoking the properties of the overtone series. See Schenker 1954, 20–44.
matters most is the quality of the verifiable musical evidence Schenker provides for his assertions, not the particular philosophical lens he applies to interpret that evidence. Therefore, it is certainly appropriate to comment on Schenker’s views about modality (or even tonality) without deciding whether or not the natural argument has merit. Simply put, Schenker’s technical criticisms of modal music neither stand nor fall on any criteria besides their own content apart from any metatheoretical framework. One must not conclude, however, that Schenker’s focus on the natural precludes valuable insights into modal compositional practice. Precisely the opposite is true: if we focus on the features of modal composition that Schenker identifies but disregard his evaluation of them, then we can use his insights to inform further work with this repertoire.34

One example from Schenker’s work may illustrate this process of shifting the focus of his commentary away from the natural. At the beginning of chapter 2 in the first book of *Counterpoint*, Schenker discusses three settings of the Mixolydian chorale *Gelobet seist du Jesu Christ*—two by J. S. Bach and one by Bellermann—and offers them as illustrations of flawed modal composition. Example 1.2.1 (Schenker 2001, 1:34–37) reproduces the unharmonized chorale melody, one setting by Bach, and Schenker’s own harmonization intended as a corrective.

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34 It should be noted that Schenker’s arguments from Nature are frequently problematic. Sometimes they strike the reader as empty rhetoric marshaled to support the superiority of his theory rather than careful arguments; at other times they seem to be no more than a crutch that Schenker uses to mask inconsistencies in his overall theoretical framework. Patrick McCreless (1989, esp. 218–20) carefully reveals this side of Schenker’s work in *Counterpoint*, and he points out that Schenker frequently retreats to absolutist language instead of clear reasoning to support his claims. Brown 1986, Brown and Wason 1989, and Clark 1999 discuss the weakness of Schenker’s natural arguments further. For further discussion of the relationship between music theory and the natural argument, see Clark and Rehding 2001.
Example 1.2.1. *Gelobet seist du Jesu Christ* (Schenker 2001, 1:34–37)

a) Chorale melody

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Ge - lo - bet seist du Jesu Christ, dass du Mensch ge - 
bo - ren bist von ei - ner Jung - frau, das ist wahr, dass 
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b) Bach’s harmonization

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Schenker faults Bach’s setting primarily because it harmonizes the last note with a root-position G-major triad even though the chorale melody requires a harmonization in C major, as his own setting supplies. Schenker justifies his position with a natural argument: since the major triad is given in Nature, every well-formed melody outlines the members of a major triad (Schenker 1954, 133–34); since in his view the chorale melody taken by itself unambiguously outlines the tonic and dominant degrees of the C-major triad, Nature absolutely places this melody within the C-major tonal system. Any setting that actively thwarts this characteristic of the melody is unnatural and therefore incorrect:

If we abandon all prejudice of earlier theory and use our unbiased ear to the fullest by simply following in the horizontal melodic direction (see Example 12 above) the fifths, which help to establish the content so beautifully and thereby clarify it so convincingly (cf. Harmony, §76), what do we really hear? The first phrase is dominated by the fourth G–C (that is, the fifth C–G in inversion), whereby our instinct, following the tonicizing tendency of the fifth
(see Harmony, §133), unfailingly forms at first the impression of C major. That this first impression is also correct is indeed confirmed by the following passage, which (compare the paragraphs just cited) certainly could have revealed [any] contradiction and thus have led to a correction.

In the second phrase, the ear immediately relates B to D and these two tones to G, which produces the triad G-B-D. Such natural development of the original C major toward the fifth, G, of its key area!

...The fourth and fifth phrases cadence most clearly in the tonic. This tonic, reached already at the word Engel [m. 8, beat 1 of the chorale], finally imbues the concluding tone G with the effect of merely a fifth of the tonic harmony. According to this natural and “quintessential” aural perception, however, the four-part setting of the chorale cited above has to be entirely different. (Schenker 2001, 1:36–37)

Schenker labels Bach’s ostensibly Mixolydian harmonization of Gelobet seist du Jesu Christ as “forced and stilted” (2001, 1:38) since it ignores the C-major tonality that Nature (or at least Schenker’s own self-professed “unbiased ear”) provides in the contour of the melody itself. Adhering to the Mixolydian modal system by treating G as the tonal centre positively contradicts Nature. 35

Contained in this argument is a technical point that we can extract and examine. Removing the references to Nature and the value judgements based on them, what emerges is Schenker’s contention that Bach’s setting contains an internal disjunction between its horizontal and vertical dimensions: the chorale melody expresses a C-major triad while the harmonization projects a G-major triad. This provides a technical reason why Schenker would consider a Mixolydian harmonization of this chorale melody to be less successful that a C-major tonal harmonization. Even though in this particular case Schenker’s point ultimately relies on a naturalistic hearing of the chorale melody, the need to invoke Nature is effectively neutralized since the problem of dimensional

35 Schenker considers Bach’s harmonization Mixolydian since it treats the last G4 of the melody as a modal final by making it the root of the final triad (2001, 1:38).
disjunction does not essentially depend upon the natural argument: in general, we may discover a lack of coordination between the horizontal and vertical dimensions of music without invoking Nature.\textsuperscript{36} Below, I explore in detail Schenker’s observation that modal compositions lack coordination between their horizontal and vertical musical dimensions.

Schenker’s appeal in both \textit{Harmony} and \textit{Counterpoint} to the natural foundations of his theoretical perspective, however, is not implicitly doomed to failure. On the contrary, most musical theories would surely benefit immeasurably from strong bases in natural, psychological, acoustic, and aesthetic realities, whether in all or some of these possible categories. Without these foundations, we can never guarantee that our theories have broader significance through a connection to reality beyond their own mechanisms and systems.\textsuperscript{37} The problem we encounter, then, is not Schenker’s invocation of Nature per se, but rather his failure to support his claims adequately. Even though this may seem to be avoiding the issue, we can certainly set aside Schenker’s natural argument and still gain valuable epistemological ground. Whenever we encounter a theory that resists evaluation in terms of ultimate truth content or is inconclusive in this regard, we may still (if the structure of the theory permits) evaluate it systematically and logically without deciding the larger and more important question of its truth. This is not to say that the logical structure of a given theory is wholly unrelated to its truth content; on the contrary, we regularly assume that a well-formed and logically coherent empirical theory that conforms to our experience of the world is probably true, and vice versa. Nevertheless,

\textsuperscript{36}As I discuss later, Schenker’s criticisms of other music by Bach (see example 1.2.4) and Sweelinck (see example 1.2.5) demonstrate this possibility.

\textsuperscript{37}In the realm of Schenkerian theory specifically, Matthew Brown has advocated the need for more extensive examination of how well it conforms to data obtained from cognitive psychology. See Brown 2005, 209–33; Brown 2001/2002; and Brown 1997.
the epistemic structure of a theory remains conceptually distinct from its truth content, and we can examine these elements separately as individual cases require. Regarding Schenker’s criticisms of modal music, then, we may understand them according to their context within the larger framework of his theory construed without the metaphysical axioms Schenker introduces to establish the truth of his perspective. Evaluating the truth of Schenker’s natural argument is important, but it is a different project than the one at hand.  

Schenker’s Technical Criticisms of Modal Composition

As mentioned above, I divide Schenker’s criticisms of modal music into two separate categories: those based on the exigencies of motivic development, and those based on the coordination of the melodic/horizontal and the harmonic/vertical dimensions of musical structure. Schenker comments on modal composition in each volume of the Neue musikalische Theorien und Phantasien series, but the most sustained commentary appears in Harmony, and subsequent discussions nearly always refer back to the perspective he adopts there. I will address Schenker’s commentaries in order of ascending scope and importance, rather than chronological order, beginning with his criticism of modal composition based on motivic development which appears in §26–27 of Harmony.

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38 The relevant body of literature discussing the evaluation of the logical structure of empirical, explanatory theories is of course vast within the Philosophy of Science. Without delving too much into a distinct field of study, the reader may consult a few introductory sources regarding this topic: Hempel and Oppenheim 1948; Carnap 1966a, b, c; Salmon 1984. Relevant literature from the field of music theory includes: Brown and Dempster 1989, 1990; Brown 1997; Brown 2005, 1–24; Babbitt 2003a, b. Brown 1997 addresses the relationship between the logical structure of empirical theories and their truth content. Brown and Dempster 1989 and 1990, and Brown 2005 are particularly helpful for understanding the different criteria we may use for evaluating the success of any empirical theory.
Unlike the other criticisms which Schenker consistently revisits across his publications, this one is unique to *Harmony*.

Schenker’s argument that modal systems are inadequate, or at least inferior, resources for motivic development relies on two prior premises. The first, and most important, is his assertion that motivic repetition, or development, is the most fundamental ingredient of musical composition and is the basis of musical art: “Music became art in the real sense of this word only with the discovery of the motif and its use” (1954, 4). If modal systems, therefore, can be shown deficient in terms of motivic development, Schenker has grounds to negate their validity. The second premise, a corollary of the first, asserts that the most effective and natural motivic development is possible only when a system, such as the major and minor keys, forms equally-constructed triads on 1, 4, and 5 of its scale. Most modal systems do not provide such triadic equality, as Schenker (1906, 71) illustrates in a table reproduced in example 1.2.2:

**Example 1.2.2. Triads of the modal systems (Schenker 1906, 71)**

![Triads of the modal systems](image)
The Ionian and Aeolian modes, which Schenker equates to the major and minor systems respectively, are the only modes with equally-constructed triads on these scale degrees. Without delving too deeply into the first three chapters of *Harmony*, we may make a few salient observations about these two premises and their effect in supporting Schenker’s criticism of modal composition.

Schenker’s first premise elevates motivic repetition as the “primordial and intrinsic association of ideas” in music (1954, 4) and the source of artistic and intelligible musical structures. Characteristically, Schenker illustrates his conception of the definitive role motivic repetition plays with natural and biological metaphors:

> Only by repetition can a series of tones be characterized as something definite. Only repetition can demarcate a series of tones and its purpose. Repetition thus is the basis of music as an art. It creates musical form, just as the association of ideas from a pattern in nature creates the other forms of art.

Man repeats himself in man; tree in tree. In other words, any creature repeats itself in its own kind, and only in its own kind; and by this repetition the concept “man” or the concept “tree” is formed. Thus a series of tones becomes an individual in the world of music only by repeating itself in its own kind; and, as in nature in general, so music manifests a procreative urge, which initiates this process of repetition. (Schenker 1954, 5–6)

Schenker’s assertion that motivic repetition is the primary force behind musical organization, however, is significantly weakened, if not erroneous, by the purely surface-level definition of motive that he holds throughout *Harmony*. In this treatise, Schenker defined a musical motive simply as any connected series of notes established as a distinct unit by immediate repetition (“The motif is a recurring series of tones” [1954, 4]), and his analytical examples clearly indicate that he only recognized foreground motivic patterns at this early stage in his theoretical thinking. While series of pitches literally contiguous at the foreground are surely important to the overall aural intelligibility of tonal music,
these kinds of motives carry far less importance structurally than Schenker gives them in *Harmony*; and as his theoretical perspective matured, Schenker discovered that motives extend beyond the foreground into early and late middleground levels of structure. Indeed, motivic structures beyond the foreground frequently carry the most interesting analytical information about the structure of tonal compositions, as Schenker’s own writings and the work of other scholars consistently demonstrate.\(^{39}\) Right from its foundation, therefore, Schenker’s argument that modal systems are inferior with regard to the exigencies of motivic development begins to waver.

Additionally, Schenker’s identification of the foreground motive as “primordial and intrinsic” to tonal music is misplaced, as Oswald Jonas points out (Schenker 1954, 4n1), and is again a result of the early stage of his theoretical thinking in *Harmony*. Later, as we see in *Free Composition*, Schenker revised this opinion to grant the combination of the *Ursatz*, structural levels, and voice-leading transformation the status of entities intrinsic to and definitive of tonal composition:

Musical coherence can be achieved only through the fundamental structure in the background and its transformations in the middleground and foreground. It should have been evident long ago that the same principle applies both to a musical organism and to the human body: it grows outward from within. Therefore, it would be fruitless as well as incorrect to attempt to draw conclusions about the organism from its epidermis. (Schenker 1979, 6)

Schenker retains the biological metaphor, but at this point he would surely equate surface-level motives with the epidermis rather than the core of the organism. Indeed, Schenker only uses the term “motive” in a pejorative sense in *Free Composition* to argue

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\(^{39}\) Schenker’s understanding of motives beyond the early perspective in *Harmony* is well known. The following sources provide a thorough introduction to the topic: Burkhart 1978; Cadwallader 1988; Cadwallader and Pastille 1992; Beach 2005, 27–38.
that musical structure can only be rightly understood beyond the foreground.\textsuperscript{40} Schenker’s first premise in the larger motivically-based argument against modal composition, therefore, becomes irrelevant due to the myopic definition of motive as a surface-level event.\textsuperscript{41}

Notwithstanding the weakness that Schenker’s early perspective of motive injects into the argument, we may examine the second premise and its impact on modal composition, i.e., systems that exhibit equally constructed tonic, dominant, and subdominant triads facilitate effective and natural motivic development. Of course, the only musical systems that meet this criterion are major and minor tonal keys, as shown above in example 1.2.2,\textsuperscript{42} and Schenker seems even to attribute their dominance over modal systems to this fact:

The artist’s motivic endeavor led quite spontaneously to the establishment of the major and the minor modes, since both show, in their decisive points—the tonic, the dominant, and the subdominant—an even temperature, major or minor, and are therefore particularly suitable for the development of motivic problems. (Schenker 1954, 55)

To illustrate the inferiority of modal systems in this regard, Schenker highlights the absurdity of developing a fugal subject in the Phrygian system: a minor subject on the tonic becomes diminished when repeated literally at the fifth above, and the identity of the subject is compromised. Example 1.2.3 (Schenker 1906, 65 and 72) shows the subject

\textsuperscript{40} See Schenker 1979, §50. In \textit{Free Composition}, Schenker defines “motive” as a foreground event, while he prefers the term “diminutions” for motivic events at higher levels of structure (Cadwallader and Pastille 1992, 134).

\textsuperscript{41} Furthermore, even if modal systems do present some difficulties for foreground motivic repetition, we cannot thereby conclude that modal composition cannot produce salient motivic repetition at higher levels of structure where such relationships are more important.

\textsuperscript{42} Regarding the minor key, Schenker observes that the equal construction of the tonic, dominant, and subdominant triads are the result of artistic sensibility and not Nature, which provides the major key exclusively (1954, 45–54). This explains why the quality of the dominant triad in minor-key compositions may oscillate between major and minor.
from Bach’s D-minor fugue from Book One of the *Well-Tempered Clavier*, and

Schenker’s hypothetical Phrygian answer:

**Example 1.2.3. Minor fugal subject with Phrygian answer**

a) Minor (Schenker 1906, 65)

![Minor fugal subject](image)

b) Phrygian (Schenker 1906, 72)

![Phrygian fugal subject](image)

Schenker’s point seems entirely valid when considering this subject-answer pair. Besides the identical contour, the Phrygian answer does not sound much like an answer to the subject at all: the diminished fifth, A–E♭, outlined by the Phrygian answer simply does not match closely enough the perfect fifth, D–A, in the subject. Furthermore, the B♭ and E♭ in the Phrygian answer tonally centre the melody around B♭ instead of A, and this distorts the normative fugal subject-answer relationship.

Even though the technical content of Schenker’s second premise is clear and valid, we can identify a significant logical problem with how it contributes to the overall argument: Schenker has not explained why the “decisive points” of the tonal system—the tonic, subdominant, and dominant triads—are equally relevant to modal

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43 Even though the absurdity of the Phrygian fugal answer is legitimate, one wonders why Schenker did not discuss motivic repetition within modal systems outside of fugal developments. In an environment with less strict conventions, one can easily imagine modal motivic repetition that could succeed by introducing alterations that “correct” any problems arising from the peculiarities of modal scales. Schenker certainly permits variation for motivic repetition in tonal music (e.g.: Schenker 1954, 7). One answer may be that Schenker considered fugal imitation a sort of acid test, a sine qua non of motivic repetition, as some passing remarks in *Harmony* suggest (e.g.: 1954, 56). In other words, if modal systems fail fugal requirements for motivic repetition, one need not investigate the issue any further.
systems. In effect, Schenker rightly establishes the preeminence of these triads in tonal structures, but then uses that fact to criticize modal composition, which need not necessarily behave in the same way or exhibit the same structural characteristics as tonal composition: he judges modal composition by a standard extraneous to the system and therefore begs the question. His point only holds if the tonic, subdominant, and dominant triads (or their modal analogues) are indeed the lynchpins of modal systems in the same respect as they are for tonality; but Schenker never demonstrates this. While we might agree with Schenker that tonal keys develop motives at the intervals of the fifth and the fourth more successfully than modal systems, this does not thereby invalidate modal compositional procedures that may use different resources for motivic development. Of course, lurking beneath the surface here is Schenker’s naturalistic perspective. He automatically privileges motivic development at the intervals of the fifth and fourth since he believes that Nature itself prescribes the perfect fifth (and the fourth defined as an inverted fifth) as the most significant interval (1954, 21–44).

In the end, Schenker’s myopic view of motives and motivic development in *Harmony* severely hampers, if not invalidates his first technical criticism of modal composition. As his theoretical perspective matured, Schenker must have realized this; and besides what we find in *Harmony*, Schenker does not again explicitly criticize modal systems based on their capacity for motivic development. As Schenker’s understanding

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44 In fact, we might conclude after reading the first two chapters of *Harmony* that Schenker would reject the relevance of the tonic, subdominant, and dominant triads in the generation of modal systems. If we privilege these elements and follow Schenker’s derivation of a scale from them, we will inevitably end up with a tonal major scale and nothing else.

45 In *Counterpoint* (2001, 1:20–32), Schenker makes his only subsequent reference within the *Neue musikalische Theorien und Phantasien* series to the section in *Harmony* (1954, 55ff) that outlines the criticism based on motivic development. The citation, however, is brief, and he does not explicitly repeat the argument that modal systems are insufficient resources for motivic development.
of motives changed, his commentary on modal composition shifted to focus on the implications that modal systems hold for the relationship between the horizontal and vertical dimensions of musical structure. Let us move now to this second technical criticism of modal composition.

Recall Schenker’s commentary on *Gelobet seist du Jesu Christ* (example 1.2.1). There, Schenker dismisses Bach’s setting on the grounds that Nature assigns the unharmonized chorale melody exclusively to the tonal key of C major: a Mixolydian interpretation of the chorale melody, such as Bach offers, is unnatural and simply the result of Bach’s misguided, if nonetheless pious, attempt to deny his innate artistic sensibility in deference to the liturgical and musical traditions surrounding the chorale.\(^{46}\)

Leaving aside the appeal to Nature, however, we can identify in Schenker’s train of thought a more technically oriented reason why he finds deficient ostensibly modal compositions such as Bach’s chorale harmonization: a lack of coordination between the

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\(^{46}\) We can infer from several of his comments that Schenker believed this to be the case concerning Bach’s modal settings of chorales. This passage in *Free Composition* discussing the Hassler song, *Lustgarten* no. 24, stands out particularly: “As we know, Hassler’s moving melody was later to be used as a chorale; the spirit of J.S. Bach was soon to hover over this melody, in the several settings of it which this master made. So the melody served both secular and liturgical texts. The chorale became, so to speak, a musical article of the Protestant faith...Other settings of Hassler’s upper voice, such as those by J.S. Bach (...) offer only a superficial tribute to the lingering Phrygian system which musicians still believed in” (1979, §251). Schenker suggests here that Bach, whom he calls a “master,” produced Phrygian harmonizations of Hassler’s melody chiefly to comply with contemporaneous liturgical musical practice surrounding chorale singing. In *Counterpoint*, while discussing the different settings of *Gelobet seist du Jesu Christ*, Schenker suggests that Bach observed the Mixolydian mode despite his better artistic instincts: “Thus Bach and Bellermann force themselves—just for the sake of theory!—to begin as well as end the chorale harmonically with the triad on G. Even if we admit that under certain circumstances such constructions could perhaps be accounted for by some artistic whim or license—precisely from the standpoint of free compositions, thus not at all by theory alone—, those settings still contain enough stilted and forced features imposed by the Mixolydian system on the otherwise normal melody in major. This ‘forced’ character has not been mitigated by much, even though a J.S. Bach rushed in to support the false system with such artistic voice leading and so many [other] basic devices that make the setting beautiful” (2001, 1:38). Notice in these quotations that Schenker makes sure, as much as possible, to exonerate Bach, whom he obviously held in the highest regard. He goes so far as to call Bach’s voice leading beautiful even though it expresses the Mixolydian system, which Schenker would hardly describe as beautiful itself.
horizontal/melodic and the vertical/harmonic dimensions of the musical structure. In Schenker’s hearing—and importantly, regardless of the natural justification—the chorale melody alone horizontally composes-out a C-major triad and, consequently, requires a vertical harmonic structure that expresses C-major tonality presumably by emphasizing that key’s tonic and dominant triads. If this agreement between horizontal and vertical is absent, as in Bach’s Mixolydian harmonization, then the music is imperfect and guilty of distorting the character of the melody. The Mixolydian system’s harmonic framework clashes against the C-major tonal centredness that the melodic fifth relationships express:

The assumption of a Mixolydian system, however, is primarily based on the fact that the chorale’s first and last tones are G and, furthermore, on the rule posited by contrapuntal doctrine that the first tone of the melody must also be the first tone of a system—thus, the Mixolydian in this case. The internal fifth-relationships are thus rendered mute by this external feature alone; it is obvious that when it comes to salvaging the honor of an alleged system, one does not inquire much into the inner authenticity and significance of melodic progression (Tonfolgen).…It is evident from this example why I have rejected the church modes in Harmony as well as here (see Chapter 1, §5). It can be seen here in a most convincing way how the pressures of a church mode can distort a well-invented melody rather than bringing us closer to understanding it. (Schenker 2001, 1:38–39)

We find here explicitly a technical and verifiable criticism of modal composition, namely, its failure to realize harmonically the vertical implications of a horizontal melodic line. This criticism, of course, rests entirely upon Schenker’s unique and original conception that a purely melodic line composes-out triads and has harmonic implications.

Schenker also identifies the reason why he believes that modal systems cannot consistently offer an appropriate harmonic framework for well-composed melodies like
He notes that mode, as a theoretical concept, is limited to describing specific attributes of melodies and does not account for harmonic progression:

The merely descriptive nature of the old mode—or the merely mnemotechnical side, as I have called it before [Harmony §76]—is obvious here; originally the purpose of the mode was simply to capture theoretically the beginning and end of a given melody as well as other relationships in the course of the horizontal line...As meritorious as such an era of gathering and describing materials certainly is for the evolution of art (...), a great step forward is nevertheless taken with the discovery of our two principle systems [i.e., major and minor tonalities]. The latter, in contrast to the old modes, are based simultaneously on two dimensions, the horizontal and the vertical. Consequently they need no longer limit themselves merely to providing a highly detailed horizontal description; rather, by the application of harmonic criteria (even to the horizontal line—compare Harmony, §76), therefore precisely by virtue of their deeper penetration, they are able to reveal all the more accurately the true inner core of the melody. (2001, 1:39)

Essentially, Schenker articulates here what we have already discussed in the first section of this chapter: i.e., modal theory in general is a taxonomic system for categorizing melodies according to various features they exhibit. It does not specify a particular harmonic behaviour, but the harmonic framework that arises in polyphony is governed by contrapuntal practice. As a result, modal compositional practice often produces no more than a disconnected series of triads that, while consonant with the melody, often contravenes the inner harmonic logic of the melody it accompanies.

Schenker repeats this point in Free Composition while discussing Hassler’s secular song from Lustgarten, no. 24, and Bach’s subsequent harmonization of it as a chorale (Schenker 1979, §251). Example 1.2.4 below reproduces Schenker’s analysis of

47 By a “well-composed” melody I mean a melody that Schenker would recognize as composing-out a specific tonic triad through fifth relationships, unlike Gregorian chant melodies or cantus firmi intended for abstract exercises. Both in Counterpoint (2001, 1:39) and Der Tonwille (2005, 129), Schenker affirms that chorale melodies are, in his words, “real compositions” with Urlinien.

48 I reiterate, however, that eighteenth-century theorists like Kirnberger found ways to blend modal theory with harmonic progression in modal cadence systems (cf., example 1.1.5). Harmonic thinking was not entirely foreign to modal theory in the eighteenth century.
Hassler’s song (1979, fig. 116), and one of Bach’s harmonizations (1941, no. 89) that Schenker cites.

**Example 1.2.4. Hassler and Bach**

a) Schenker’s analysis of Hassler (1979, fig. 116)

![Schenker's analysis of Hassler](image)

b) Bach’s harmonization (1941, no. 89)

![Bach's harmonization](image)

As Schenker hears it, Hassler’s melody on its own clearly composes-out a D-major triad (the final F# does not displace this hearing), and the harmonic setting succeeds since it expresses the key of D major with a background tonic–dominant–tonic arpeggiation, as
Schenker’s graphs show. In contrast, Bach’s ostensibly Phrygian harmonization positively contradicts D major by interpreting the first and last melodic F♯s as the modal final and thereby establishing a conflict between its horizontal and vertical dimensions. The F♯-major triad harmonizing the final note of the melody eradicates any sense of a governing D-major tonality.

Below is Schenker’s commentary on Hassler’s and Bach’s individual settings:

In the strictest sense of absolute music, Hassler’s setting approaches perfection. In the foreground the upper voice presents a definite composing out of the D-major harmony in the form of an octave transfer, Ő2–Ô2, followed by a closure, 3–2–1. The conduct of the bass line is just as definite as it composes out the arpeggiation I–V–I. Thus, an unmistakable fundamental structure is present which supports the foreground. Other settings of Hassler’s upper voice, such as those by J.S. Bach (…) offer only superficial tribute to the lingering Phrygian system which musicians still believed in. In these settings, the Phrygian system was suggested, indeed almost required, by the final note. However, the latter is correctly understood as the third of the tonic chord in the major mode (…). It is precisely the definiteness with which the major mode is achieved in the total span that allows Hassler to use an incomplete full close, in which the hidden 1 is understood. (Schenker 1979, §251)

Even though he does not explicitly state it, Schenker again is criticizing Bach’s modal harmonization because it poses an irreconcilable opposition between its horizontal and vertical dimensions. The key to this reading is Schenker’s initial insistence that the melody alone clearly composes-out D-major harmony. Bach’s harmonization is incorrect simply because the vertical dimension does not coincidentally express D major. A coordination between horizontal and vertical is absent, and the culprit responsible is an abstract contrapuntal dictum (i.e., the first and last notes of a melody must be the modal final) that lacks any notion of harmonic progression.
Returning to *Harmony*, we find that Schenker addresses modal composition in several other contexts besides his concern for modality’s incapacity for motivic development (1954, 55–57): the identification of the Aeolian system with the minor mode (45–54); an explanation of more recent attempts at modal composition—with examples by Beethoven, Brahms, Chopin, and others—by attributing their allegedly modal characteristics to tonicization, modulation, and modal mixture (59–76, and 84–115); a criticism of Gregorian chants for their lack of organization around the scale degrees of a particular triad (134–37); and finally, a “Note” to §88 of *Harmony* discussing the relationship between strict counterpoint and the newly introduced concept of the *Stufe* (163–74). While each of these sections is interesting in its own right, we will focus here on the extended note.

In the note appended to §88, Schenker addresses the lack of coordination between the horizontal and vertical dimensions of modal music from a slightly different, and perhaps more informative angle than we encounter in *Counterpoint* and *Free Composition*. Whereas in these latter treatises Schenker seems to blame modal systems themselves for introducing harmonies foreign to the vertical implications of chorale melodies, here he singles out Renaissance contrapuntal procedure as the culprit causing discordance between melody and harmony.\(^49\) Since contrapuntal rules, or strict composition as Schenker calls it, do not account for harmonic progression (i.e., they do not account for *Stufen*) but simply govern polyphony by normalizing the interaction between consonant and dissonant intervals, they cannot provide a successful vertical

\(^{49}\) I consider this angle more informative since, as discussed in the previous section, contrapuntal procedure provides much more salient information about polyphonic composition than the idea of mode.
realization of the harmonic content implicit in a melody. Instead, this type of vertically-bound counterpoint can only produce a panoply of triads that bear no relationship either to each other or to unfolding melodic triads (Schenker 1954, 154–63). Let us examine one of the examples that Schenker offers to illustrate his position.

To illustrate his point, Schenker offers for consideration an excerpt from Sweelinck’s *Psalm 1*, reproduced here in example 1.2.5 (1954, 165).

Example 1.2.5. Sweelinck *Psalm 1* (Schenker 1954, 165)

While, as Schenker notes, the upper voice of this excerpt falls entirely within a diatonic E♭-major scale, the harmony in mm. 7–8 presents a problem: how are we to explain the D♭-major triad supporting A♭ and F during the melodic descent to E♭ in m. 9? We could note that Sweelinck uses D♭ in the bass in order to avoid the prohibited diminished-fifth that the diatonic D♭ would create with the A♭ in the melody; but this purely contrapuntal
justification is not sufficient for Schenker. In his view, the D♭-major triad is unjustifiable because the melody itself never internally expresses that triad. In other words, we discover here a clashing conflict between horizontal and vertical:

> But it should be noted also—and this is even more important—to what extent the harmonies suffer from a lack of purposiveness, each harmony becoming a purpose unto itself and expressing, behind the melody, which is by far the most important element, things of which the melody knows nothing. What, for instance, has the melody to say in reply to the D-flat, ventured in the vertical direction, in measures 7 and 8? How can this triad, D-flat, F, A-flat, become plausible if the melody fails to participate in it with the decisive interval? And is not there a striking contrast between the fact, on the one hand, that the cantus beautifully unfolds its one triad and the fact, on the other hand, that the vertical counterpoint does not in the least unfold its many triads but brings them up, instead, merely as by-products of voice-leading? But how is it possible to use a triad, which remains enfolded in itself to make plausible another triad, which in turn, does not get unfolded? Thus also the sequence lacks logical proof to the extent that each individual triad lacks such proof…(Schenker 1954, 166)

For Schenker, individual harmonies are only justifiable when melodic motion engenders them by unfolding, or linearizing their specific harmonic intervals. Abstract contrapuntal procedures and rules are not sufficient within this compositional logic; and more often than not, pure counterpoint creates isolated triads that have no logical connection to one another, as Schenker indicates at the end of the quotation above. Without the guiding presence of *Stufen*, which themselves can only exist as a result of a harmonically oriented melody, modal polyphonic composition based solely on contrapuntal relationships does not provide a logical harmonic progression from one chord to the next. As Schenker

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50 When Schenker speaks here about the “decisive” (*entscheidenden*) interval, he refers to the perfect fifth (or perfect fourth in inversion) between D♭ and A♭. This is consistent with Schenker’s argument at the beginning of *Harmony* that the tonal system is constructed around the interval of the perfect fifth. Schenker uses the same adjective in his discussion of motivic development when he indicates that the tonic, dominant, and subdominant are the “decisive points” (*entscheidenden Punkten*) of the major and minor keys (1906, 70). Again as discussed previously, Schenker believes that a melody most clearly expresses a particular triad through perfect fifths and fourths.
expresses it here, purely contrapuntal chords remain “enfolded” in themselves: they are not extended or unfolded over a span of time to coordinate with an identical melodic unfolding of a particular triad. In compositions such as Sweelinck’s, the horizontal and vertical clash while counterpoint alone rules the harmonic framework.\(^{51}\)

In Schenker’s estimation, however, counterpoint does not bear all of the blame for this composition’s shortcomings. The melody itself, being entirely oriented around an E♭-major triad, is too static to admit any harmonic variety. It seems as if Sweelinck’s composition is doomed from the start: either it becomes stagnant and boring remaining entirely in E♭ or it admits a greater harmonic vocabulary at the expense of coherence between its horizontal and vertical dimensions. The solution is, of course, first to widen the range of the melody and allow it to unfold multiple different triads, a process Schenker describes as broadening melodic content:

In so far as our main problem, viz., the widening of musical content, is concerned, this technique [purely contrapuntal composition] does not aid our art. The very opposite technique was called for: one that would confirm the vertical harmony in the horizontal line of the melody as well. Such a technique, however, presupposes a larger amount of melodic content [i.e., multiple triads unfolded melodically]. The content of the composition must be rhythmically articulated and variable, unfolding now this, now that other, triad, if it is to manifest clearly its two dimensions and free them of that unfortunate disproportion from which the example from Sweelinck suffers to such a degree. (Schenker 1954, 167)

\(^{51}\) In *Harmony*, there is a tension in Schenker’s writing concerning the different roles of counterpoint and harmony in coordinating the vertical and horizontal dimensions of musical structure. Here, Schenker clearly seems to believe that voice leading is inherently aimless and must be given a purpose and direction by the harmonic dimension. Chords like the D♭-major triad in Sweelinck excerpt are “irrational” because they arise purely through voice leading and not from harmonic influence. At the same time, however, here and in *Counterpoint* (as we saw in the commentary on *Gelobet seist du*) Schenker consistently appeals to the harmonic content of the melodic line, and he discards offensive triads since they are not expressed in unfolding of the melody. In a deeper sense, then, harmony itself is still governed by the horizontal line. Schenker continued to refine the interaction of harmony and voice leading in musical structure throughout his career until the final formulation of his ideas in *Free Composition.*
The disproportion to which Schenker refers is that between the number of purely vertical harmonies and those expressed melodically: we find more harmonies vertically than we do horizontally. We will return to Schenker’s notion of melodic content in the last section of this chapter.\(^5\)

To conclude this section, let us take a step back to summarize what the *Neue musikalische Theorien und Phantasien* series reveals about Schenker’s understanding of modal compositional practice. At the outset, we briefly considered Schenker’s criticism of modal composition based on an argument from Nature: since Schenker believes that the tonal system is uniquely provided in natural acoustic phenomena, any other musical system is therefore unnatural and imperfect. Paradoxically, this is simultaneously Schenker’s strongest and weakest argument. It is strong because of the high epistemic reward of its terms: a musical theory of this kind would benefit immeasurably from a foundation in natural acoustic realities. The argument is at the same time, however, fatally weak in its presentation. Schenker never succeeds in proving that tonality is the exclusive and necessary result of the natural properties of sound. Because of this argument’s appeal to Nature we leave it mostly unexplored, for assessing its validity requires a different sort of investigation than what our goals here both require and permit.

Second, we encountered Schenker’s contention unique to *Harmony* that modal compositional practice is a deficient resource for motivic development, a process which at that time Schenker regarded as the foundation of musical structure. This argument

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\(^5\) In the note to §88 of *Harmony*, Schenker also includes an instructive commentary on an excerpt from Hassler’s “Ach Fräulein zart,” another song from *Lustgarten*. In this case, he makes the same point as he does in the discussion of the Sweelinck example above; and as a result, I do not summarize this commentary here. Interestingly, Schenker returns to this Hassler excerpt in *Free Composition* while discussing the cross-relation (1979, §250, fig. 115), but he treats the music as an example of tonal composition without mentioning his previous work with it in *Harmony*. 
suffers from at least three serious challenges to its credibility: it depends upon an overly myopic understanding of motive that Schenker would later abandon; it rashly judges modal composition with decidedly tonal standards by privileging motivic development at the intervals of the fifth and fourth; and finally, it does not address the possibility that modal composition could produce successful motivic repetition apart from the strict requirements of fugal development. In all, this is the weakest of the three criticisms of modal compositional practice.

Finally, Schenker’s most robust and fruitful criticism of modal compositional practice is his observation that modal music based on strict counterpoint typically lacks coordination between its horizontal and vertical dimensions. He shows that contrapuntal procedures introduce vertical harmonies that do not receive expression, or unfolding, in the horizontal path of the melody; and as such, these isolated harmonies lack logical justification in the melodic content. This criticism is the strongest of the three since it is directly verifiable in concrete musical evidence (what I have been calling a technical criticism). As long as we understand and accept Schenker’s position concerning the horizontal expression of triads, we can independently corroborate this criticism and understand its role as a coherent part of his overall theoretical framework.

Importantly, Schenker’s concern over the lack of coordination between the horizontal and vertical in modal composition is unlike his other criticisms since it does not depend upon terms derived from tonal composition. Instead, the argument relies only

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53 It seems clear that in order to refute Schenker’s third criticism of modal compositional practice one must first attack the larger premise that well-formed melodies articulate triads linearly and thereby imply a particular harmonic support. Needless to say, the goal of this section is not to do that; rather, it is to gain a fuller understanding of Schenker’s unique view of modal composition. Evidently, we must operate assuming Schenkerian parameters to achieve this.
upon a triadic environment (i.e., music that uses triadic sonorities as a basis) and does not presume a paradigmatic harmonic progression between these triads, such as tonality requires: a coordination of horizontal and vertical such as Schenker describes may occur whether or not the overall harmonic progression of the music is ordered in any particular way. Of course, Schenker argues that common-practice tonal composition achieves this coordination in a uniquely perfect way; but this is a result of his own theoretical bias towards tonal music and is not in itself an essential element of the overall point. Indeed, a triadic compositional framework must ontologically precede any ordering of harmonic progression into tonal paradigms;\textsuperscript{54} and for this reason, Schenker’s perspective here is equally valid for both tonal composition and triadic modal composition lacking a functional harmonic progression.

1.3. The Function of Modal Music in Schenker’s Music History

This final section discusses Schenker’s view of music history and the role that modal composition plays in it. Some commentators on Schenkerian theory dismiss his historical perspective as either naive or fatally tainted by his obvious bias toward tonality as the only truly viable musical system. I suggest, however, that despite any problems inherent in Schenker’s approach, understanding his perspective of music history properly contextualizes and better accounts for his criticisms of modal composition.

Let us revisit for a moment Schenker’s commentary in \textit{Free Composition} concerning Hassler’s chorale (example 1.2.4). Schenker believes that the melody alone

\footnote{\textsuperscript{54} This point is important in finding the way to apply Schenkerian theory to modal music and will be developed later in chapter 3.}
clearly expresses a D-major triad: “In the foreground the upper voice presents a definite
composing-out of the D-major harmony in the form of an octave transfer, F♯1–F♯2,
followed by a closure, 3–2–1” (1979, §251). This hearing, however, is not as
straightforward as Schenker portrays it. During the opening octave transfer, Schenker
notes that the normative arpeggiation is lacking: rather than moving through the members
of the D-major triad, i.e., F♯–A–D–F♯, to secure its composing-out, the upper voice
replaces A in this arpeggiation with B, i.e., F♯–B–D–F♯, as we see in the score and
Schenker’s middleground graph.

Notwithstanding this feature of the melody, Schenker has no trouble hearing an
unambiguous D-major melodic unfolding in which B merely replaces A at the foreground
level:

Despite the sparseness of tonal material in Hassler’s setting, several bold
events in the composing-out do arrest the attention. Bold though they are, they are
all musically cogent.

Measure 1: The a1 normally required by the arpeggiation F♯1–a1–d2–f♯2 is
missing here. Yet it is understood from the opening chord, and thus can be absent
in the motion to d2. The diminution of the b1, which replaces a1, results from the
composing-out of the third in ascending and descending directions:
b1–c♯2–d2–c♯2–b1. (1979, §251)

Reading the entire commentary on the analysis, however, it becomes clear that
Schenker’s real intention is to demonstrate the ability of the Ursatz to organize and
ground a somewhat deviant musical surface within a higher conceptual structure. The
power of the Ursatz normalizes the foreground’s deviation from a normative tonal
arpeggiation:

55 Hassler’s use of B instead of A, however, should not be construed as an instance of substitution
as Schenker describes it (1979, §§145–146, and §235)
Even in this early music, the fundamental structure [Ursatz] has so much strength that we have no difficulty in recognizing the passing tones in the middleground. Those passing tones which the earlier level shows as dissonances remain passing tones, even though the foreground shows them as consonances. (Schenker 1979, §251)\footnote{Throughout Free Composition, Ernst Oster translates Ursatz and Urlinie as “fundamental structure” and “fundamental line” respectively. In my prose, I adopt the more recent convention of leaving Schenker’s original German terms for these concepts (and others) untranslated.}

Schenker’s analysis ultimately is uncontroversial from the perspective of his mature theory, and it does not warrant further comment as such.\footnote{In this example we encounter Schenker’s final conception of the roles that counterpoint and harmony play in the creation of musical content and structure. The Ursatz, an inseparable unity of the Urlinie and the Baßbrechung (1979, §3), encapsulates the origins of both the vertical and horizontal dimensions. Both melody and harmony participate equally in the creation of musical content emanating from the background.}

A larger question, however, arises at this point: why is Schenker so determined to hear modal melodies as if they are tonal? Why does he insist that we hear Hassler’s melody in D major and use the Ursatz to normalize its peculiarities and Phrygian characteristics? The same may be said for his commentary on Gelobet seist du Jesu Christ (see example 1.2.1). Furthermore, Schenker’s view of these chorales is not an isolated case. In Counterpoint, Schenker claims that most Dorian, Phrygian, and Mixolydian chorales should be understood as major or minor tonal melodies that close on either 3 or 5:

The cadences of chorale melodies mistakenly considered Dorian, Phrygian, or Mixolydian also belong, in a different sense, to this category [i.e., melodies that do not close with ♩ in the upper voice]. If we assign these melodies (to the extent that they are well constructed at all from an artistic standpoint) to one or the other of the only valid systems (that is, major or minor), then we view the closures of these melodies from the perspective of exactly these two systems—for example, as the fifth of the tonic harmonies in Example 12 of this volume [Gelobet seist du Jesu Christ] and Example 107 of Harmony. (2001, 1:107)

Why must Schenker filter chorale melodies through this tonal lens?
One way to answer this question is to attribute Schenker’s stance to an entrenched, anti-intellectual bias towards tonality. In this view, Schenker is so committed to the superiority of tonality that he uncritically forces modal chorale melodies into a tonal framework and criticizes them when they do not conform to this arbitrarily imposed standard. Lori Burns adopts this position, and she questions the value of Schenker’s commentary on modal composition:

It is highly problematic to engage tonal analytical values in the interpretation of mode-based compositions. For instance, when Schenker holds modal compositions to the principles of the tonal practice, he judges the harmonic and melodic relations to be crude and concludes that they are the result of a primitive theoretical system. When his tonal expectations are frustrated, he finds the music lacking in sophistication. This analytical course is unproductive. It is not reasonable to apply tonal logic to modal practice: modal music should not be expected to comply with tonal theoretical standards; similarly, tonal theory is inadequate to deal with modal harmonic and melodic relations. (Burns 1991, 50)

Burns’s main point here is valid: judging modal music with tonal standards is problematic to a certain degree, given that we can find points both of similarity and disparity between the systems, and Schenker certainly is guilty of this at times. Even though it is easy to target Schenker’s bias towards tonality, I believe that this approach misses the point. A more interesting perspective on this issue emerges when we consider Schenker’s interpretation of music history. Even though Schenker does not speak very much about music history in his publications (one finds only scattered paragraphs and comments), we should not attribute the relative paucity of these

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58 Though her position is sound overall, I believe that Burns does not sufficiently distinguish between Schenker’s criticisms of modal composition. For example, as mentioned before, Schenker’s point about the incongruity of the horizontal and vertical dimensions of musical structure does not require an appeal to tonality. Also, we can judge Schenker’s technical criticisms of modal composition on their own merits apart from any particular tonal bias he may have incorporated into the arguments as an interpretive framework.

59 In this regard, recall Schenker’s criticism of modal composition based on its incapacity for motivic development (see section 1.2).
discussions to an indifference toward historical inquiry; rather, Schenker considered
music history an important pursuit, but a subject worthy of treatment apart from the focus
of his publications. Among Schenker’s comments we find a few different threads: a
historical perspective tracking the alternating presence and absence of musical geniuses;
various diatribes on the decline of compositional technique in the nineteenth century; and
a historical narrative focusing on the development of musical content and the interaction
between the horizontal and vertical dimensions of music. The last of these themes is
most important for our purposes since only in this context does Schenker address modal
composition.

Schenker proposes that the history of musical composition can be understood as a
teleological process during which first the horizontal and then the vertical dimension of
music emerges and, after some time of being “engaged in a battle” (1954, 169), gradually
cohere and synthesize in common-practice tonal composition through the process of
composing-out. John Koslovsky succinctly distills Schenker’s conception of this process
into three chronological stages involving the development of both melodic and harmonic
content:

Specifically, Schenker’s history is one that involves: 1) the development of the
linear and vertical dimensions of music; 2) the emergence of composing-out
(Auskomponieren and Auskomponierung) as the artistic expression of the linear
and the vertical; and 3) the expansion of musical content (Inhalt), in particular the
use of harmony (Stufenlehre). (Koslovsky 2009, 194)

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60 See Koslovsky 2009, 184–90. Schenker did draft an essay on the decline of musical
composition in the nineteenth century that was never published. William Drabkin has presented a
translation of this essay with critical commentary: see Drabkin 2005 and Schenker 2005. Since this essay
does not address modal composition, I will not consider it further at this time.

61 John Koslovsky (2009, 184–205) presents a summary of Schenker’s understanding of music
history according to these three categories.
In this narrative, the expansion of melodic and harmonic content occurs simultaneously (Schenker 1954, 163), and the technique of composing-out permits this to happen.

Perhaps the best way to grasp this process is to look at Schenker’s own description of it.

In the long note appended to §88 of *Harmony*, Schenker summarizes the evolution of music from Gregorian chant, to Renaissance polyphony (which heralds the early stages of artistic composing-out), to tonality. The first stage in the process is the gradual emergence of unfolded major and minor triads in the vertical line:

During the early period of polyphony (say, in the ninth and tenth centuries) the situation in this respect [i.e., the development of melodic and harmonic content] may have been as follows: In so far as melody was the property of the church, the limits of its length simply could not be trespassed upon. In other words, it was out of the question to extend the length of a melody, which is what ought to have been done most urgently. In what concerns the ecclesiastical jubilations and the folk songs which could be considered in this context, we lack the appropriate documentation to enable us to reach a closer understanding. It may be assumed, however, that they have contributed to a development of harmonic feeling, as manifested, for example, in the melodic unfolding of a major or minor triad or in the discovery of the Ionian and Aeolian systems themselves (cf. note to 76)—rather than to the development of melodic length as such. (1954, 163–64)

Once melodic content had begun to develop, composers added the harmonic dimension through polyphony:

In the face of the inviolability of the given melodies, our problem thus appeared insoluble, at least by any direct means. But the human spirit, driven by the urge to grow, knew how to break this impasse indirectly. Thus polyphony was invented. To the dimension given by the horizontal line, the width, another dimension, the vertical or depth, was added: and, despite the narrowness of the barriers, a new and wide space was conquered for the free play of creative imagination. Depth made up, as a felicitously deceptive substitute, for the lack of greater length. (1954, 164)

Polyphonic composition, however, still lacked sufficient melodic and harmonic content and a coordination of its horizontal and vertical dimensions. The paucity of melodic
content prevented the development of a logical harmonic content, and as a result, the
preponderance of isolated triads in the vertical dimension, completely under the control
of strict counterpoint, hampered the vitality of the horizontal and even threatened its
survival (Schenker 1997, 2):

We need not recount here what pains were taken in elaborating the idea of
polyphony during the following centuries...It was that labor, however, as well as
the first joy of the discovery, which induced the composers of that period to
overlook, for the time being, the important sacrifices which were imposed on the
melody by the new technique of polyphony. The first principle of counterpoint,
according to which every note of the cantus must rest on a complete triad or must
at least form part of such a triad, already entailed the very evil consequence that
the tone of the melody was, so to speak, pulled down by the weight of the triad,
which would easily enough distract the ear from following the melody in its
horizontal flow. The evil grew yet larger when the expanding technique of
polyphony facilitated a greater vivacity in the contrapuntal voices; for the larger
series of tones which thus originated weighed yet more heavily on each individual
note in the melody and dragged it down...But apart from this unfortunate
situation, the melody had to undergo, in addition, the harm resulting from a
screaming disproportion; for the most humble harmonic content of its own line
was contrasted by the overabundance of harmonies in the vertical direction.
(1954, 164–65)

As musical examples of this point in the evolution, Schenker offers the Sweelinck excerpt
discussed above (example 1.2.5). These compositions highlight the difficulties, or as
Schenker would say the “irrationality,” inherent in music that pits its horizontal and
vertical dimensions against each other.

The solution to this state of affairs, as Schenker describes, came first in Italian
monody which emancipated the horizontal line, and then in basso continuo which gave a
melodic-type fluency to the bass voice and allowed it to unfold harmonies in its own right
(1954, 172–73). Finally, German composers perfected the techniques of composing-out
and diminution and achieved the requisite coordination between horizontal and vertical
that permitted the artistic expansion of musical content:

All roads, then, as they take us away from the pristine strict technique of
counterpoint, lead us toward the new goal, the creation of broader content. The
idea of the triad comprises a longer series of tones; its own unity bestows on
them, despite their length, a unity easy to grasp; boundlessly ever new conceptual
material may be accumulated; for the harmonies will always articulate the
horizontal line as well into smaller units, and thus any danger of chaos will be

Composing-out and the expansion of content arise definitively with the advent of
instrumental polyphony, or as Schenker states, at the end of the “vocal era” (2001,
1:xxvi). Thus proceeds Schenker’s distinctly teleological narration of music history: all
musical composition prior to late seventeenth- and early eighteenth-century tonality leads
incrementally up to this point of perfection.

Regardless of the overall merit of this historical paradigm, it can provide a reason
why Schenker is determined to hear modal melodies with tonal ears. Given the
progressive strain of his history, we can assume that Schenker may have been keen to
identify pre-tonal music that manifests certain inchoate qualities that rise to perfection in
the final result, to find the structural links in the evolving historical chain. Most chorale
melodies seem to have fit that profile for Schenker: they represent for him an identifiable
historical condition when horizontal melodic content had certainly begun to show a more
developed content, but vertical harmonic structures were still haphazard and stagnant
under strict contrapuntal voice leading. Hassler’s music perhaps represented for Schenker
a clear marker on the journey towards tonality.
I suggest, then, that we may interpret Schenker’s ascription of tonal qualities to modal melodies as an attempt to pinpoint the historical incipience of those very characteristics. For Schenker, modal music exists primarily as a crucial juncture (yet still only a temporary phase) on the inevitable journey towards eighteenth-century tonal practice. Koslovsky summarizes this interpretation with a reference to the introduction from *Counterpoint*:

> Although Schenker was hardly a historian of early music and maintained a skeptical view on its status as “art,” he did have a strong conviction that the genesis of musical art in the masterworks can be found in music before the eighteenth century through a discovery of voice-leading, the harmonic scale-step, and a gradual coordination of the two. Such a sentiment is present in a number of works. In *Kontrapunkt* I Schenker writes: “All musical technique is derived from two basic [elements]: voice leading and the progression of scale degrees. Of the two, *voice leading* is the earlier and more original element.” (Koslovsky 2009, 198)

This explanation is just as plausible and satisfying a reason as any for Schenker’s tonal engagement with modal melodies, and it provides a context for Schenker’s tonal bias. His absolute preference for the tonal system does not exist in a vacuum; rather, it is both expressed and developed within a teleological historical narrative, and each reinforces the other.

The proposition that Schenker was (at least in the back of his mind) engaged in a search for emergent tonal material finds further support in a short essay from the second issue of *Der Tonwille* (Schenker 2004–2005) titled “The History of the Art of Music.” Here, Schenker asks explicitly when, by what means or procedures, and by which

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62 The quotation from *Counterpoint* is found in Schenker 2001, 1:xxv.
composers did the final coordination of horizontal and vertical and composing-out finally emerge in compositional history:

A history of the art of music has yet to be written. It would have to provide answers to the following questions:

When and how did the law of consonance (with the octave, fifth, and third) first work its way into and fulfill itself in successions of tones (regarded horizontally), so that the tonal successions, because they express a triad, could be experienced as a unit? Did this occur even before the initial attempts at polyphony, or later? How about the Urlinie around the time consonance first secretly impregnated the horizontal dimension? And, secondarily, to what extent do the musical utterances of today’s primitive peoples resemble those early tonal successions?

After the law of consonance found fulfillment in the vertical dimension in the age of polyphony, which artists were the first to produce an agreement between the vertical and the horizontal triad and so forge a path to a horizontal (melodic) elaboration [Auskomponierung] that was also attested by the vertical dimension? How were the elaborations connected to one another? Did an Urlinie tie them together? (2004, 52).

This essay only asks the questions that Schenker considers necessary to answer in an adequate account of music history, an account he never wrote. Nevertheless, the scattered historically oriented material in his publications suggests that the questions Schenker poses here are more than idle musings. Clearly, Schenker retained these historical problems in the back of his mind as he was working out the Neue musikalische Theorien und Phantasien series.
Chapter 2

Revisions and Agendas: Schenkerian Theory and Bach’s Modal Music

Introduction

Schenker restricted the scope of this theory to tonal music of the eighteenth and nineteenth centuries. As seen in chapter 1, Schenker did not spend much energy investigating modal music, and when he does comment on this repertoire his purpose is either to demonstrate its imperfection in relation to tonal composition or to narrate his teleological history of musical composition. As far as his publications indicate (that is, discounting any ideas he may have held privately), Schenker never envisioned that either his theory or his unique analytical notation could apply to non-tonal compositions.¹


¹ In addition to the modal compositions presented in chapter 1, Schenker discusses music by Josquin (1979, §164, fig. 54) and Stravinsky (1996, 17–18). Stern 1982 and Traut 2000 provide some commentary on these passages respectively.
² See Ernst Oster’s (1960) review of Travis’s article. For more information concerning the application of Schenkerian theory to post-tonal music, see the following: Baker 1983; Straus 1987, 1997; Brown 2005, 202–09.
³ Salzer 1952 also includes analyses of post-tonal works by a variety of composers.
⁴ See David Beach’s (1988, 1990) response to Neumeyer’s work.
theoretical concepts specifically to J. S. Bach’s modal chorales and chorale preludes. While among these scholars we find shared and unique motivations for applying Schenkerian theory to non-tonal repertoire (and I will outline these motivations below), we may also detect in their work an underlying sense that their efforts confirm the explanatory strength and fruitfulness of Schenkerian theory rather than undermine it.\(^5\)

Donald Traut’s reflection in concluding his analysis of Stravinsky’s *Concerto for Piano and Wind Instruments* expresses this sentiment succinctly:

> Consequently, in order to graph Stravinsky’s music adequately, we need to have a clear idea about the limits of Schenkerian theory...Until we can specify these limits exactly, we cannot be sure whether the differences between the music of Stravinsky and that of his common-practice forebears are matters of degree or of kind. This suggests that the real irony is not so much that Schenker’s methods can help us understand Stravinsky’s music, but rather that Stravinsky’s music can help us unravel the mysteries of Schenkerian theory. (Traut 2000, 83)

Even though the limits of Schenkerian theory’s explanatory scope are arguably more clear than Traut suggests here,\(^6\) the essence of his point—whether one finds it particularly ironic or not—remains intact: in a sort of reductio ad absurdum, the explanatory purview of Schenkerian theory comes into sharper focus when we move toward and even beyond its peripheries. This underlying idea appears to be common to most of the authors cited above; their approaches, however, in reconciling the cognitive dissonance that inevitably arises when casting Schenkerian theory’s net farther afield are at times radically different.

In this chapter, I review some of the literature surrounding the application of Schenkerian theory to non-tonal repertoire. Given the context of this dissertation, I

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\(^5\) I reiterate here, however, that the impetus for applying Schenkerian theory to Bach’s modal music arises from the compatibility between Bach’s compositional technique and the kind of music Schenker sought to explain.

\(^6\) See the following literature for a discussion of this topic: Brown, Dempster, and Headlam 1997; Brown 2005; Brown 2004/2005.
bypass those who use elements of Schenkerian theory to analyze post-tonal music, and I focus rather on those who have sought a congruity between Schenkerian theory and modal music. Naturally, I pay particular attention to those scholars who deal directly with J. S. Bach’s music.

I divide this chapter into three sections which address, in order, work by David Neumeyer, Lori Burns, and William Renwick. While each of these scholars uses elements of Schenkerian theory to analyze Bach’s modal settings of chorales, the similarity between them mostly ends at the subject matter. David Neumeyer proposes and defines for Bach’s modal chorale settings a unique tonal space based on the species of fifths and fourths that create modal scales. Lori Burns, on the other hand, places the modal chorale settings within a hierarchical system of structural levels by proposing new modal Ursätze and voice-leading techniques. Finally, William Renwick avoids unified hierarchical structures in his analyses and opts instead to identify several interconnected tonal centers operating successively in Bach’s modal chorale settings. Each of these scholars borrows from Schenkerian theory with varying degrees of fidelity, and each approach has its own merits and shortcomings.

I have titled this chapter in part “revisions and agendas” in order to emphasize the tension lurking beneath the surface of the subject at hand. Clearly, one cannot expect to use Schenkerian theory to analyze modal compositions of any period with ease. Some of the highest epistemological premises of Schenkerian theory, e.g., the harmonic progression of tonal Stufen, automatically exclude most modal compositional practice. Music that does not contain tonic-dominant tonal relationships cannot be under the
control of the *Ursatz*, for then we would undermine the recursion of voice-leading transformations through the compass of hierarchical levels.\(^7\) If Schenkerian theory and modal music are to intersect, one must decide how to resolve this situation from both a purely technical and a broadly epistemological perspective. For those who choose to alter the fundamental concepts of Schenkerian theory, as do Neumeyer and Burns, we can find as justification for their *revisions* (the technical side of the problem) a larger metatheoretical *agenda*, i.e., a theoretical framework (the epistemological component) orienting the technical revisions toward a specific analytical goal. Unless these two elements are present and in cooperation, the process is arbitrary and therefore irrelevant. The purpose of this chapter, then, is to tease out these elements in the work of the authors I have cited. It accounts for the literature surrounding the problem of combining Schenkerian theory with non-tonal repertoire, and it places my own perspective within scholarly precedent.

### 2.1. Neumeyer’s Analytical Model

In two separate publications, David Neumeyer has proposed a Schenkerian-derived model for analyzing Bach’s modal chorale settings. He introduced the model in “Fragile Octaves, Broken Lines” (1989) and presented it again in *A Guide to Schenkerian Analysis*, coauthored with Susan Tepping (Neumeyer and Tepping 1992).\(^8\) To explain Neumeyer’s model,\(^9\) let us examine his analysis of the chorale *Mach’s mit mir, Gott, nach*

\(^7\) See Brown 2005 (76–98) for a discussion of the fundamental importance of recursive transformations in Schenkerian theory.

\(^8\) Neumeyer 2009 returns to chorale analysis using a loosely Schenkerian methodology, but the focus here is completely different and his original model does not resurface.

\(^9\) Since the model in question originates in Neumeyer 1989, I attribute it to Neumeyer alone without citing Tepping, the co-author of *A Guide to Schenkerian Analysis*. 

*deiner Güt* (Neumeyer and Tepping 1992, 116; Neumeyer 1989, 23) reproduced in example 2.1.1 along with Bach’s original setting, BWV 377.¹⁰

**Example 2.1.1. *Mach’s mit mir, Gott, nach deiner Güt***

a) Neumeyer and Tepping (1992, 116)

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¹⁰Neumeyer’s choice of chorale for this analysis is noteworthy: *Mach’s mit mir, Gott, nach deiner Güt* is in the Ionian mode, the equivalent of the modern major scale, and Bach’s SATB harmonization is unambiguously tonal. I find no compelling reason, therefore, to interpret this chorale setting as modal. In chapter 4, I specify that my study excludes this type of chorale setting, i.e., a tonal setting of an originally modal melody.
b) BWV 377

Clearly, Neumeyer’s analytical model departs significantly from traditional Schenkerian theory and analytical methodology. At the highest level of structure, Neumeyer places what he calls a “tonal/spatial (‘TS’) background/middleground” (1992, 115) that replaces the Ursatz with a tonal space divided successively into the fifth D–A and the fourth A–D. Neumeyer proposes this alternative tonal space in order to privilege the presumed structural properties of the fourth species of fifth and the third species of fourth that compose the Ionian octave species (the chorale melody is in the D-Ionian mode), and we clearly see these species operating in the lower “spatial/linear middleground (‘SL1’)” structural level. Neumeyer and Tepping describe their use of interval species in this way:

Our second example is another chorale in Bach’s setting, “Mach’s mit mir, Gott, nach deiner Güt.’” In this case we will concentrate on the species of octaves and their subdivisions into species of fifths and fourths. Most scholars agree that these constitute the essential starting point for an effective analysis of modal music. Thus, we assert that the natural tonal space for the sixteenth and

\[\text{[Equation]}\]

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11 See chapter 1, section 1.1, examples 1.1.1 and 1.1.2. I adopt the notation using a letter before the name of the mode, e.g., “D-Ionian,” to indicate a modal scale transposed to begin on a pitch other than the traditional modal final.
seventeenth-century chorale repertoire is the octave, subdivided into fifth and fourth (\(1\text{--}5, \, 5\text{--}8\) or \(5\text{--}8, \, 1\text{--}5\); but in some circumstances also \(1\text{--}4, \, 4\text{--}8\) or \(4\text{--}8, \, 1\text{--}4\)). (Neumeyer and Tepping 1992, 115)

After reproducing the unaccompanied chorale melody, the analysis presents a “tonal/spatial/linear (‘TSL’)” foreground showing the distribution of the species of fifth and fourth in the original melody above an interpretative reduction of Bach’s bass line.

In summary, Neumeyer’s analysis proposes two things: first, it asserts that the structural tonal space controlling the chorale melody is the octave species divided into separate species of fifth and fourth; and second, it shows through graphic notation the distribution of these fifth and fourth species in the chorale melody and how they interact with Bach’s harmonization, represented by the bass line alone. In the model, Neumeyer blends elements from traditional modal theory, i.e., interval species, and Schenkerian theory, i.e., harmonic and melodic prolongation.

Examining Neumeyer’s analytical model from a technical perspective, certain crucial difficulties arise. First, one must question whether species of fifths and fourths in fact provide an acceptable basis for the type of analytical model for modal chorale settings that Neumeyer presents. As I have argued in chapter 1, the terms of traditional modal theory, like the interval species, do not carry any significant structural information: they are simply taxonomic categories that group monophonic melodies with similar characteristics. Interval species neither control the behaviour of melodies nor generate melodies, just as modes do not exert any control over sixteenth-century polyphonic tonal structures. If Neumeyer’s intention had been merely to show how the chorale melody falls within the Ionian octave species, then his analysis would present no difficulties.
Such an analysis, however, would be essentially meaningless; and, no doubt recognizing this fact, Neumeyer proceeds further to assign hierarchical structural significance to the interval species. Whereas such an approach may indeed be achievable in a different context, it unfortunately does not blend successfully with Schenkerian theory and its presentation of harmonic and melodic prolongation.

For example, in the SL2/TSL level in the analysis we encounter individual pitches within the species of fifth and fourth undergoing what appears to be prolongation through descending linear progressions:¹² these are the A₄ in the fifth species D₄–A₄, and D₅ in the fourth species A₄–D₅. In this way, Neumeyer treats notes within an interval species as if they were Schenkerian scale degrees, and thus he conflates two heterogeneous theoretical concepts that cannot inhabit the same space without an explicit redefinition of either one or both of them. Quite simply, a pitch within an interval species cannot be prolonged in the Schenkerian sense because it is not a member of a triad like a tonal scale degree. If Neumeyer had wished to propose an analogical correspondence between scale degrees and modal interval species he could have done so; but, this does not seem to be his intention. The commentary accompanying the analysis (Neumeyer and Tepping 1992, 115–17; Neumeyer 1989, 21–24) never mentions such a correspondence and, indeed, the central goal of the model is to give structural priority to interval species understood traditionally. Neumeyer commandeers interval species into performing analytical work

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¹² It remains unclear from Neumeyer’s graph how he identifies both harmonic and melodic prolongation since he does not adequately explain his methodology. We cannot assume a strictly Schenkerian notion of prolongation to interpret his graph as it departs significantly from standard Schenkerian notation.
that they are incapable of accomplishing: because they are purely melodic, the pitches within interval species cannot participate in harmonic prolongation as scale degrees.

Reading the SL2/TSL graph more closely reveals some apparent, and unexplained inconsistencies in the interpretation that Neumeyer’s notation reflects. For example, Neumeyer does not explain why the linear progressions down from both A4 and D5 in the first and second phrases of the chorale should not be notated with stems and scale-degree designations as is the descent from A4 in the third phrase. The notation clearly distinguishes the descent in the third phrase from those in the first and second, but the difference between these moments remains unclear. In the third phrase, Neumeyer identifies the descent from A4 to E4 as commixture (a species of fourth foreign to the Ionian mode) as indicated with the “tremolo marking” on E4 in the SL1 graph (1992, 115–16); but why does the same descent in the first phrase not merit identical status as an instance of commixture? Furthermore, if A4 in the third phrase is conceptually retained as the highest voice, as the graph suggests with the dotted slur connecting A4 in third phrase to A4 in the fourth phrase, then why is the notation here so different from the descent from A4 in the first phrase, which uses the same dotted slur to connect to A4 in the second phrase? Neumeyer’s commentary explains neither these ostensible discrepancies nor his conventions of graphic notation, so the reader is left to interpret the analysis.

Reading the graph, it seems plausible to attribute these inconsistencies to the conflation of interval species and scale degrees that underlies Neumeyer’s analytical framework. In the first two phrases, the pitches A4 and D5 in the melody behave as scale

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13 David Beach (1990, 14–16) also raises these points in his response to Neumeyer’s graph.
degrees since they can receive prolongation through descending linear progressions with harmonic support in the bass. In the third phrase, however, interval species encroach upon the interpretation of the upper voice and muddy the waters. At one level of structure, Neumeyer indicates with the dotted slur that the A4 in phrase three is structurally connected to the A4 beginning of the next phrase. This notation suggests that the A4 in phrase 3 is prolonged as the structural upper voice until it is regained in phrase 4. At the same time, however, A4 in phrase three is not prolonged through a linear progression (as we see in phrases one and two), but instead, each pitch in the descent from A4 to E4, according to the notation, lies within the same structural level.\textsuperscript{14} Neumeyer, therefore, seems to be engaging both the concepts of scale degree and interval species simultaneously at this point in the graph: A4 as a scale degree may be retained as the structural upper voice between phrases three and four, but the descent A4–E4 is clearly intended to show the foreign species of fourth and not a prolongation of 5.

Neumeyer attempts to have it both ways: he employs indiscriminately both the concepts of scale degree and interval species in a single graph without explaining how we may reconcile these incommensurate theoretical concepts or even distinguish them through his notation.

Neumeyer’s interpretation of the bass line in his SL2/TSL sketch does not merit extensive commentary. Interestingly, he uses Schenker’s beamed half-note notation in the

\textsuperscript{14} The only conventionally Schenkerian way (i.e., considering only scale degrees and not interval species) to interpret this descent from A4 in the third phrase as it is notated would be as an instance of interruption. In fact, Neumeyer 1987 (16-17) analyzes this same chorale as a tonal piece and places an interruption at this point. It is not clear, however, whether Neumeyer intends to show interruption in this modal interpretation of the chorale: there are no graphic symbols to indicate an interruption, the bass progression extends beyond this point, and we do not find any discussion of interruption in the commentary accompanying the graph.
bass line suggesting the *Baßbrechung* portion of the *Ursatz*, while the upper-voice sketch contains no corresponding notational conventions. A more pressing concern regarding the bass line sketch, however, is its connection to the upper voice; and again, the issue relates directly to the conflation of scale degrees and interval species.

In the first phrase, the analyses of the bass line harmonic progression and the upper voice correlate well as the tonic *Stufe* is prolonged through its upper fifth while A₄, 5, is prolonged through a descending fourth to E₄, 2. In the latter half of the second phrase, however, the bass line and upper voice diverge: D₅ in the upper voice is retained over a harmonic prolongation of A major. Traditionally, of course, A major cannot prolong the pitch D, which is a dissonant fourth above the bass; yet, Neumeyer chooses to highlight D₅ as a structural melodic pitch since it forms the upper boundary of the species of fourth, A₄–D₅, forming half of the D-Ionian octave species.

Rather than resolving the incongruity between the harmonic structure and the melody in the graph of phrase two, Neumeyer freely embraces it and accuses Bach of distorting the melodic structure of the chorale melody with his harmonic choices. When D₅ is reached in the second phrase, Neumeyer correctly observes (as shown in the inset above the SL2/TSL graph) that the harmonic structure supports the third A₄–C♯₅ instead of D₅: D₅ is harmonized as the seventh of a dominant-seventh chord in first inversion and is consequently an upper-neighbour to C♯₅. Instead of matching his analytical interpretation to the setting, Neumeyer instead leaves the conflict in place, and he attributes the ambiguity to Bach:

Tonic harmony strongly supports the first fifth species, d′-a′, but the fourth, a′-d′′, is effectively reduced to a third with neighbor note (see the inset above the graph)
because of dominant support. This is not what we might have expected from the structure of the melody and is clearly forceful interpretation on Bach’s part. (Neumeyer and Tepping 1992, 116)

Neumeyer’s contentions here are debatable at best, and they clearly rely on his prior assumption that interval species play a role in structuring the chorale melody. Even under that problematic premise, however, Neumeyer cannot plausibly conclude that the species of fourth he shows in the second phrase should properly imply tonic harmony. Interval species do not contain any harmonic information, and therefore cannot imply one harmony over another as he suggests. This role is reserved for scale degrees that are members of Stufen. The only forceful interpretation here belongs to Neumeyer, not Bach: he has no warrant to require that any note within the interval species he identifies should receive consonant support. Unfortunately, Neumeyer allows an ill-founded, a priori theoretical assumption to lead him away from the context of the music he is analyzing. In his haste to demonstrate the presence and operation of interval species in this chorale harmonization, he has produced an analysis with internal contradictions and ad hoc solutions to determining whether individual melodic pitches behave like scale degrees, members of interval species, or both simultaneously.

Having raised these concerns with Neumeyer’s technical revisions of Schenkerian theory, we can examine the larger metatheoretical framework motivating his analytical model. Neumeyer recognizes that one cannot apply Schenkerian theory unaltered to modal compositions, and he expresses this through a hypothetical either-or choice that an analyst must make. In his view, one either adopts Schenkerian theory completely and accepts the analytical results, or one discards the inconvenient elements of the theory to
produce an analysis that would presumably correspond more accurately to the music being analyzed:

The basic problem is, Do [sic] you simply accept Schenker’s concepts and try to “stretch” their application a bit to account for such things as modality or complex chords? Or, do you rethink the concepts of the theory to be appropriate to the style and techniques of the music at hand? In the first case, results are pre-interpreted in terms of Schenker’s ideology, no matter how subtle or interesting you find the composition at hand—early music is still imperfect and twentieth-century music is still decadent. The second approach, overall, is more satisfying and likely to lead to better results, but is also more difficult and is likely to draw the reproach that the analysis is no longer “Schenkerian”… (Neumeyer and Tepping 1992, 112–13)

Clearly, Neumeyer believes that any analyst may freely modify Schenkerian theory both to suit the music under investigation and to demonstrate whatever he or she wishes to emphasize about the piece.15 Furthermore, not only is this approach possible, it is preferable despite a perceived threat of reproach: if the Ursatz is problematic for analyzing modal or post-tonal music, one may freely discard it and replace it with another kind of musical structure.16

Neumeyer’s claim here is puzzling and certainly cannot stand alone. Schenkerian theory, especially as presented in *Free Composition*, is not a conglomeration of isolated concepts and practices which one may retain and discard at random: instead, it is a coherent theory whose parts depend upon each other for their integrity. If one were consciously to discard one element from the whole, one would necessarily need to explain how the other components of the theory can operate apart from the one removed.

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15 Neumeyer’s preferred methodology in the quotation above is particularly ironic considering his analysis of *Mach’s mit mir Gott*. There, Neumeyer deliberately disregards the harmonic context of Bach’s music in favour of his own a priori decision to emphasize the species of fifth and fourth in the melody.

16 Neumeyer 1989 expresses the same point by asserting that Schenkerian theory is a “poor tool for style analysis” (1989, 21), and therefore, one may supplant the Ursatz with another concept more suited to the style of the composition under investigation.
This is clear in Neumeyer’s analysis of *Mach’s mit mir Gott*. In that case, Neumeyer fails to explain how we may analyze Schenkerian harmonic and melodic prolongations while the interval species in the upper voice simultaneously preclude Schenker’s idea of scale degrees as members of *Stufen*. How can Neumeyer so casually offer his analytical model without an explanation of how it operates?

I believe that the answer to this question lies in understanding Neumeyer’s view of the nature of Schenkerian theory and, more specifically, the *Ursatz*. For Neumeyer, Schenkerian theory is not in fact a coherent theory of musical structure at all but an interpretive practice, or even an elaborate narrative system. He states this explicitly in a review, co-authored with Julian Hook, of Allen Cadwallader and David Gagné’s *A Guide to Schenkerian Analysis* (2010):

> On the other hand, we might decide that, rather than trying to ignore, suppress, or hide driving cultural ideologies, we should openly celebrate Schenkerism as ideological, not scientific, as interpretive practice, not theory. Seen through the prism of current debate in fields like literature or cinema studies, Schenkerian theory is not theory at all; it is the clothing draped about an interpretive (analytical) practice. (Neumeyer and Hook 1997, 220)

Unfortunately, Neumeyer and Hook neither clarify the relevance of literature and cinema studies to Schenkerian theory nor explain what they mean by an interpretive practice. We may extrapolate from the context, however, to propose a meaning for their contention. If an interpretive analytical practice stands in contrast to a theory as Neumeyer and Hook indicate, and if we may reasonably understand that the primary purpose of theories is to

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17 Littlefield and Neumeyer 1992 attempts to connect Schenker’s theory of musical structure with narrative theories. While I do not discuss this article here, it is sufficient to note that the perspective adopted therein is made possible by Neumeyer’s broad perspective of Schenkerian theory as an interpretive practice, an issue I do address explicitly.

18 Note that Neumeyer and Hook review the first edition of Cadwallader and Gagné’s textbook published in 1997.
explain the phenomena they address,\textsuperscript{19} then we may understand an interpretive practice to be an ad hoc set of analytical mechanisms that help an analyst describe his or her experiences and intuitions about music. The key point here is that the assertions about the music remain internal to the analyst and, therefore, not subject to the external criteria of a well-formed explanatory theory. Given this reading of Schenkerian theory, we easily see why Neumeyer feels free to adjust it however he desires. If Schenker’s understanding of musical structure does not meet the requirements for an explanatory theory, then it becomes a loosely connected set of individual analytical strategies from which any analyst may choose some and discard others according to his or her particular interpretive agenda. In order to present the model he does, Neumeyer must deny that Schenker presented an internally consistent theory of musical structure. Without engaging every reason behind Neumeyer’s unconventional reading of Schenkerian theory,\textsuperscript{20} we can at least examine the root of his opinion, i.e., his skepticism of the theoretical origin of the Ursatz. If one questions the validity of the highest epistemological term of the system, the identity of Schenkerian theory, as theory per se, unravels.

\textsuperscript{19} See the following for some discussion of musical theories and the property of theories in general: Babbitt 2003a, 2003b; Brown and Dempster 1989, 1990; Brown 2005; DeBellis 2010; Lewin 1969.

\textsuperscript{20} One important aspect of Neumeyer’s thinking deserves brief mention, i.e., his reference to Schenkerian theory as an analytical methodology. We see this in the quotation above from Neumeyer and Hook 1997 and also in the introduction to Neumeyer and Tepping’s textbook stating the object of the volume “to support a clear and efficient course of training in Heinrich Schenker’s method for analysis of traditional tonal music” (1992, v). Schenkerian theory, however, is not and does not claim to be an analytical methodology. Schenker gives us no precise directions for creating analytical sketches, and the possible multiplicity and flexibility of at least foreground sketches demonstrates this lack of precise methodological directives. Instead, I believe that Schenkerian theory is most accurately understood as a theory of tonality and tonal composition, or as Matthew Brown puts it, a “model of expert functional monotonal composition” (2005, 222–33). I do not imply that analysis is not a crucial component of Schenkerian theory: such a claim is demonstrably erroneous. The fact remains, however, that Schenker did not set out the steps of the analytical process precisely enough to constitute a methodology.
Neumeyer believes that the *Ursatz* is not a truly music-theoretical entity—that is, it does not explain tonal structure—because he sees it as foremost a product of Schenker’s personal views concerning culture, politics, and the superiority of German musical theory and tonal composition. Neumeyer cannot accept that one may understand the *Ursatz* without linking it to Schenker’s *Weltanschauung*, and, building on Rothstein 1990, he detects an unresolvable paradox in the practice of those who promote the *Ursatz* without tracing it back to Schenker’s cultural and aesthetic tenets. For Neumeyer, it is a zero-sum game; we either jettison the *Ursatz*, or we deny that Schenker presented a true theory of tonal structure:

The only solution is to reject the assumptions that gave rise to the paradox in the first place: either abandon the *Ursatz* or abandon the notion that Schenker’s method constitutes a theory. Or, to restate these two options in positive terms: either accept complexity and potential multiplicities in the hierarchical design or accept that Schenker’s first priority was cultural ideology. We might, for example, maintain the idea of hierarchical structure but allow that higher levels may prioritize larger metric and rhythmic, affective, and stylistic features over pitch connections. The *Ursatz* is not a fact of nature but a cultural construct. Tonal space (as derived from the harmonic series) is a fact of nature (at least in the major mode); what we do with that space is culturally determined. Another option might be to retain the system of Schenkerian analysis whole but “demote” it to the status of voice leading in a more complicated hermeneutic project. (Neumeyer and Hook 1997, 219)

Neumeyer’s position could not be more clear. We may freely replace the *Ursatz* and its role in Schenker’s hierarchical conception of musical structure with another ad hoc construction if we are not comfortable with Schenker’s so-called “cultural ideology,” as if by subscribing to the *Ursatz* an individual analyst is expressing a sympathy towards

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21 I discuss the nature and theoretical status of the *Ursatz* more fully in chapter 3.
Schenker’s often distasteful nationalism. Unfortunately, Neumeyer merely assumes— notwithstanding the xenophobic remarks that pepper Schenker’s writing—that Schenker’s first priority was cultural ideology without offering any justification.

In expressing this position, Neumeyer joins other scholars who similarly regard the *Ursatz* as essentially unmusical and a product of Schenker’s complex *Weltanschauung*. These scholars include Richard Cohn (1992a, b), Richard Littlefield (Littlefield and Neumeyer 1992), Matthew McDonald (2007), Joseph Lubben (1993), Suzannah Clark (2007), and Nicholas Cook (1989a, 2007). Additionally, both Cohn (1992a, 169) and Lubben (1993, 74–75) see the *Ursatz* as a sort of misguided monism that distorts and disguises salient musical features, and they use the interpretation of the *Ursatz* as cultural construct to bolster their call to abandon it. Much can be said about these scholars and the positions they maintain both individually and collectively, but this discussion remains outside our present scope.

In summary, Neumeyer’s approach to analyzing Bach’s modal chorale settings proposes a theoretically untenable and, in the end, analytically unsuccessful revision of Schenkerian theory. By incorporating interval species from traditional modal theory (a questionable choice itself), the model unduly conflates two heterogeneous theoretical concepts: scale degrees and the pitches of interval species are theoretically

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22 As implausible as this sounds, Matthew McDonald (2007, 238) irresponsibly levels precisely this bizarre accusation towards Matthew Brown (2005), and he accuses Brown of complicity in Schenker’s denigration of French culture.

23 Among the scholars listed here, Nicholas Cook (1989a, 415–16; 2007, 303) adopts the most reasonable approach to this issue in that he recognizes that practitioners of Schenkerian theory can and do work successfully without engaging Schenker’s cultural politics. See Anson-Cartwright (2010, 123) for a direct response to Cook 2007.

24 For a direct response to both Neumeyer and Cohn, see Brown 1998. For answers to the apparent problem of Schenker’s *Weltanschauung*, see Brown 1998 and Schuchter 2001.
incommensurable, and Neumeyer offers no justification for the inevitable incoherence that this entails. On the other hand, Neumeyer’s view of Schenkerian theory as an interpretive practice essentially driven by cultural ideology effectively absolves him of the responsibility to justify his work. If Schenkerian theory is not an explanatory theory with an internally integrated structure, then every analyst is free to choose some of its elements and discard others at his or her whim. Ironically, Neumeyer uses a loosely Schenkerian perspective in his model under the pretext that Schenker’s work does not constitute a theory of musical structure.

2.2. Burns’s Analytical Model

Whereas Neumeyer’s approach lacks sufficiently rigorous development, Lori Burns’s analytical model for Bach’s modal chorale settings takes shape within a richly detailed and systematic study that leaves few questions unanswered. Indeed, Burns’s work—appearing first in her dissertation (1991) and later in a revised version in her monograph *Bach’s Modal Chorales* (1995)—is the most comprehensive theoretical and analytical investigation of Bach’s modal chorale settings to date.

At the heart of her analytical model lie two fundamental modifications of traditional Schenkerian theory: first, a complete recasting of Schenker’s three possible *Ursatz* forms into various original structures unique to each mode; and second, a development of novel prolongational voice-leading techniques paired with new analytical symbology that deviate, sometimes quite significantly, from Schenker’s own catalogue of

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25 My commentary on Burns’s work here will necessarily be too brief to cover everything she proposes and achieves in her study. Following the context of this chapter, I focus specifically on Burns’s analytical model in general and the theoretical framework that motivates it.
foreground and middleground voice-leading transformations listed in Parts 2 (Chapter 2) and 3 (Chapters 1–3) of *Free Composition*.

Examples 2.2.1–2.2.4 reproduce Burns’s *Ursätze* for the Dorian, Aeolian, Mixolydian, and Phrygian modes.26 These *Ursätze* also include most of her newly defined voice-leading techniques, indicated both with the double-line notation in the bass voice of the Mixolydian and Phrygian *Ursätze* and with the text incorporated into the examples.

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26 Burns does not discuss the Ionian or Lydian modes, nor does she make any distinction between authentic and plagal modes. Furthermore, Burns does not present all of her *Ursätze* in a single chart. I have culled the illustrations from various locations in Burns 1995. The *Ursätze* for the Phrygian and Mixolydian modes can be found in Burns 1995, 55–60; the *Ursätze* for the Dorian and Aeolian modes can be found in Burns 1995, 144–48. Furthermore, the ordering of the *Ursätze* in these examples is of no particular importance and I adopt it only for ease of reference.
Example 2.2.2. Burns’s Aeolian *Ursätze*

a)

b)

Example 2.2.3. Burns’s Mixolydian *Ursätze*

a)

b)

c)
For the most part, the upper voice in each of these new *Ursätze* remains faithful to Schenker’s original conception both in structure and notation. The only exception to this is the one Mixolydian *Urlinie* that begins on 4. The most radical innovations, then, occur in the *Baßbrechung* portion of the *Ursätze* where Burns places unconventional harmonic support for these *Urlinien*. In every case, the unconventional harmonic designs coincide with the novel voice-leading procedures Burns defines for each mode.

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27 I clarify in chapter 3, section 3.3, that an *Urlinie* with \( b^2 \) (the semitone above the final), as Burns’s Phrygian *Urlinien* show, can be reconciled with Schenker’s understanding of the *Urlinie* in *Der Tonwille* (Schenker 2004–2005).
Let us examine these elements before reflecting upon the set of Ursätze as a whole.

Burns defines for the Dorian mode and Aeolian modes respectively the “Dorian upper neighbour” (DOR-UN), the “Dorian lower neighbour” (DOR-LN), the “Dorian mediant” (DOR-M), the “Aeolian upper neighbour” (AOL-UN), and the “Aeolian mediant” (AOL-M). As their names suggest, the Dorian and Aeolian upper and lower neighbours prolong a harmony with a neighbouring harmony which itself can support a member of the Urlinie (see examples 2.2.1d and 2.2.2b). The Dorian and Aeolian mediants prolong the triad built on the modal final through the triad on either its upper or lower third—the Dorian mediant uses the third above the final, while the Aeolian mediant uses both the upper and lower third. Again, Dorian and Aeolian mediants may support notes of the Urlinie.

Considering these Dorian and Aeolian voice-leading techniques, several points are worth noting. First, Burns uses the Dorian and Aeolian lower neighbours to account for the diatonic 7 of these modes which lies a whole step below the final. In Burns’s interpretation (1995, 131–38), the Dorian and Aeolian modal finals frequently receive

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28 It is important to note that Burns finds these modal voice-leading procedures at every level of the musical structure. In addition to their appearance in the Ursätze, Burns offers numerous examples and models of these voice-leading techniques at the foreground and middleground levels. For examples and further discussion relating to the Dorian and Aeolian modes, see Burns 1995, 121–43; for examples relating to the Mixolydian and Phrygian modes, see Burns 1995, 39–55.

29 The reader should be aware that Burns does observe that Bach’s modal chorale settings can have completely conventional Ursätze, in which cases the modal characteristics of the music would exist only at later structural levels. I have not included Burns’s illustrations of these conventional Ursätze. Note also that the fifth Ursatz of the Dorian mode (example 2.2.1e) is not printed correctly in Burns 1995. The alignment between the upper and lower voices is slightly askew: the F3 in the bass should fall underneath 5 with C3 underneath 4 and A2 supporting both 3 and 2. This is clear from Burns’s own description of this Ursatz (1995, 146).

30 Burns (1995, 136–38) also defines an “Aeolian lower neighbour” (AOL-LN) that does not appear in the Ursätze.
idiomatic prolongation by means of ⁷ treated either as the root, third, or fifth of a triad.

Defining the DOR-UN, DOR-LN, AOL-UN, and AOL-LN voice-leading procedures provides Burns with a mechanism to highlight this characteristic feature of the Dorian and Aeolian chorales. The Dorian and Aeolian upper neighbours are clearly unconventional since they occur at the interval of a third. Burns justifies these upper neighbours by appealing to a study by Edward Phillips (1981) who shows that unaccompanied chorale melodies frequently contain ornamental pitches lying both a second and a third away from the pitch they embellish.

Furthermore, Burns’s Dorian and Aeolian mediants seem to be indistinguishable from tonal mediants in minor keys. Indeed, Burns (1995, 138) identifies the DOR-M and AOL-M only when they are in some way connected to another of her specifically modal voice-leading techniques, such as Dorian and Aeolian upper and lower neighbours. For example, compare the Dorian Ursätze in examples 2.2.1b and 2.2.1d. In the bass voice of the former, F₃ is not a Dorian mediant since it is part of a conventional tonal progression. In the latter, however, the F₃ in the bass is analyzed as a Dorian mediant since it precedes a Dorian lower neighbour supporting ⁴ in the Urlinie. This distinction between Dorian mediants and tonal mediants seems ad hoc and Burns does not justify it except by appealing to her own aural intuition.³¹

³¹ The Dorian Ursatz in example 2.2.1c seems to contradict Burns’s assertion that Dorian and Aeolian mediants must involve another modally determined voice-leading technique. As her notation shows, the DOR-M here does not involve any other modal inflection but presents a standard prolongation of F major through its own dominant, as indicated by the slur connecting F₃ to F₂ in the bass. Consulting Burns’s commentary concerning this Ursatz (1995, 146), I believe that the DOR-M notation in the example may be a misprint, but I hesitate to assert that this is the case since this notation is also shown in Burns’s dissertation (1991, volume 2, 57).
Turning to the Ursätze for the Mixolydian and Phrygian modes, we notice more radical alterations. These Ursätze show prolongations of the modal final through 4 and/or 6 in the bass and closing plagal cadences: the Phrygian and Mixolydian “subdominant-tonic relation” (PH-IV and MX-IV), the stepwise ascent to the modal final from 6 (PH-VI), and the Mixolydian “plagal” final cadences (MX-P1 and MX-P2). In studying Bach’s Phrygian and Mixolydian chorale harmonizations, Burns notices the melodic and harmonic emphasis on 4 and 6 coupled with a comparative lack of the dominant-tonic motions that characterize tonality. Burns incorporates the unconventional bass progressions in her Phrygian and Mixolydian Ursätze to grant deep structural significance to these harmonic prolongations of the modal final involving what we might call plagal relationships. In her view, this avoids the need to interpret chorales in these modes as incomplete compositions in tonal keys or instances of a sort of directional tonality:

An analysis that admits structural subdominant emphasis in Mixolydian [or Phrygian] will not have to assert that the piece “is in C, but closes on the dominant,” or that the piece “modulates from one key to another (C to G).” Such

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32 The Phrygian Ursatz in example 2.2.4a includes a “Phrygian lower neighbour” (PH-LN). Burns (1995, 53–55) defines Phrygian upper neighbours and Mixolydian lower neighbours, but they do not appear in her Ursätze. Furthermore, Burns (1995, 43–47) defines Mixolydian and Phrygian arpeggiations (MX-ARP and PH-ARP respectively). I do not discuss these voice-leading techniques here.

33 Throughout her monograph, Burns consistently uses tonal triadic terminology to indicate modal triads. This practice is controversial since it appears to ascribe tonal functional properties to non-tonal music. Fortunately, Burns (1995, 8) offers two reasons why she uses these terms. The first is a purely practical one: borrowing tonal triadic terminology avoids the sometimes awkward circumlocutions necessary for identifying modal triads that have no analogous names or functional designations. The second reason hinges upon one of the guiding principles behind Burns’s work, i.e., the proposition of a modal “directionality.” Just as tonal music manifests an internal dynamic process in its harmonic tensions and resolutions, Burns asserts that her analytical model reveals the same process in modal music. Therefore, Burns uses tonal triadic terminology to convey analogously this sense of directionality: she does not intend a literal interpretation. For a complete discussion of this topic see Burns 1995, 1–16.

34 As mentioned in chapter 1, the Mixolydian and Phrygian modes contain a minor triad on the fifth degrees of their respective scales, and compositions using these modes frequently avoid altering this triad due to the modal ambiguity that arises. Therefore, Phrygian and Mixolydian compositions most often approach a final cadence through the triads built on 4, 6, and 7 either alone or in combination.
an analysis will assert a fundamental structure which relates audibly and logically
to the foreground structure of the final plagal cadence. (Burns 1995, 50)

The first *Ursatz* (labelled “a” in Burns’s original illustration) in example 2.2.3c shows
how much Burns is willing to modify Schenkerian models to highlight the Mixolydian
mode’s emphasis of 4: not only does the structural harmonic progression in the bass begin
on 4 with the MX-IV progression, but the *Urlinie* also descends to the final from 4.35

Putting off commentary on the Phrygian *Ursätze* for the moment, Burns’s
Mixolydian plagal cadences (MX-p1 and MX-p2) merit some attention in the context of
their presentation here. In examples 2.2.3b and 2.2.3c, Burns provides two different yet
related options. In 2.2.3b, we find an identical harmonic progression in the bass
interpreted in contrasting ways: the first option (a) shows the Mixolydian plagal cadence,
while the second (b) interprets the same motion as an elaborated authentic tonal
cadence.36 Burns relies on the overall context of the chorale setting to determine whether
to adopt the first or second interpretation, and the choice therefore is purely analytical. In
example 2.2.3c we also find two competing options: the first shows 4 as the first note of
the *Urlinie* while the second shows 4 as an upper neighbour to 3. Again, Burns clarifies
that one decides between these options through compositional context.

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35 In chapter 3, I argue that an *Urlinie* beginning with 4 is fundamentally incompatible with
Schenkerian theory.

36 This type of elaborated final cadence—a V–VI–(V/IV)–IV–I harmonic progression with no
additional dominant immediately before the final tonic—is relatively rare in Bach’s oeuvre apart from the
simple chorale settings, even though elaborated final cadences in general are not an uncommon device in
his music. Note that example 2.2.3b (b) shows the highest level of structure with an implied G2 in the bass
underneath E3 and C3, which notes would be the bass line at the foreground. Mark Anson-Cartwright
(2007, 278–83) identifies this pattern in four of Bach’s keyboard works: BWV 719, 854, 957, and 1095. Of
these, only BWV 854, the E-major prelude from the *Well-Tempered Clavier*, Book I, is not based on a
chorale melody. For an analysis of BWV 854, see Beach 2005, 71–74.
Beyond her voice-leading and structural revisions, Burns’s analytical methodology remains mostly faithful to normative Schenkerian analytical practice, as we see in her many detailed sketches of modal chorale settings. Stepping back from technical considerations to a more theoretical view of her Ursätze, however, reveals more the extent of Burns’s departure from some of the central tenets of Schenkerian theory.

To begin, some of Burns’s Ursätze include lower-level voice-leading prolongations. For example, the Dorian Ursatz in example 2.2.1d includes both the DOR-M and the DOR-LN, both of which, by definition, prolong the modal final and are therefore hierarchically subordinate to it. Due to their strictly prolongational function, these elements do not belong at the highest level of structure and should be removed. Furthermore, the G2 in the bass of the same Ursatz, which Burns illustrates using Schenker’s flagged half-note notation and overlapping slurs (Schenker 1979, §56), does not belong in the background either. Removing these elements, however, leaves an Ursatz that conforms to Schenker’s original model, albeit without any roman numeral notation. Similarly, the Mixolydian Ursatz in example 2.2.3a contains the MX-IV prolongation of the modal final; but again, this voice-leading event is simply

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37 This is not to say, however, that Burns’s modal voice-leading procedures have no effect on her analytical sketches. A revealing test case in this regard is Renwick’s alternative analysis of Christ lag in Todesbanden, BWV 277 (1997, 265). Renwick’s sketch is a thoroughly tonal reading of this chorale and he presents it as a counter to Burns’s Dorian sketch (1995, 150–51). Comparing the two analyses demonstrates the extent to which Burns’s modal voice-leading procedures determine the musical structure that her sketch shows. Note that Renwick’s sketch is reproduced poorly in the original article (1997); a corrected version, however, is available in Music Analysis (16 (3): 1997).

38 Schenker’s own illustrations of the Ursatz include only the I–V–I arpeggiation in the bass (Schenker 1979, §27–44, figs. 9–11). The structural predominant appears in the first middleground level.

39 Burns’s background model in this case is unclear concerning the quality of the “dominant” triad: her Ursatz does not specify whether the dominant is major or minor. Since this is the case, one can assume that this background could incorporate both the major- and minor-mode dominants. If the major-mode dominant appears, then the Ursatz is indistinguishable from Schenker’s norm. Notably, Burns cites the chorale Christ lag in Todesbanden, BWV 4/8, as an example of this background structure. Bach’s SATB setting, as Burns’s analysis shows (1995, 157), has a major-mode dominant supporting 2 in the final cadence.
prolongational by definition and belongs not in the background but in the middleground. Unlike the Dorian Ursatz, however, this Mixolydian Ursatz retains the modal MX-P1 progression in the background.\textsuperscript{40} Example 2.2.5 reproduces the Ursätze in question without these extraneous prolongations:

\begin{example}
\textbf{Example 2.2.5. Burns’s Ursätze altered}

\begin{figure}
\begin{center}
\includegraphics[width=\textwidth]{example225}
\end{center}
\end{figure}
\end{example}

This possibility for removing prolongations from Burns’s Ursätze problematizes her assertion that distinctly modal features in Bach’s chorale settings exist at every level of structure: “There exist characteristic Mixolydian, Phrygian, Dorian, and Aeolian relationships that unify compositional structure at all levels” (1995, 16). Indeed, recursion of distinctly modal features to the background is paramount for Burns since, in her view, this circumvents a need to subsume them within larger “tonal/functional terms” (1995, 16). Burns’s Ursätze, however, force the issue. In order to highlight deep-level modal patterns, she compromises the simplicity of Schenker’s Ursatz model by including first-order prolongations (again, this problem is more acute in the Dorian and Aeolian Ursätze

\textsuperscript{40} In general, Burns’s Dorian and Aeolian Ursätze all reduce to the conventional Schenkerian model (without roman numerals of course) when lower-level prolongations are removed. All the Phrygian and Mixolydian Ursätze retain modal elements in their final cadential patterns.
than in the Phrygian and Mixolydian models). Comparing the altered *Ursätze* in example 2.2.5 with the original models, one must question whether all of Burns’s proposed modal compositional procedures really exist at the background, as she claims. Burns’s *Ursätze* seem more to be early middleground levels rather than true background structures.41

Nevertheless, Burns clearly considers her models to be true *Ursätze* rather than middlegrounds:

> My analytic method does admit an *Ursatz* level, that is, a fundamental structure in which a melodic stepwise descent to the tonic note (*Urlinie*) is counterpointed and harmonically supported by a characteristic arpeggiated bass structure (*Baßbrechung*). (Burns 1995, 55–56)

While this definition of the *Ursatz* appears reasonable at first, it is in fact somewhat reductive. The *Ursatz* certainly consists of the fundamental line and an arpeggiated bass, but it is significantly more than the interaction of two separate elements. In Schenker’s explanation (1979, §§1–3), the *Ursatz* constitutes a unity whose parts ultimately may not be understood separately. The unity of the *Urlinie* and *Baßbrechung* follows from Schenker’s contention that they both linearize the chord of nature. Burns’s definition above seems subtly to minimize this monadic quality of the *Ursatz* by highlighting its parts separately as independent structures merely coinciding. Indeed, her description of the *Baßbrechung* creates an undue conceptual priority, as if it arises from a compositional need to support the *Urlinie*. Of course, the *Baßbrechung* does fulfill this function, but it derives ultimately from the chord of nature and not from the *Urlinie*. Additionally, Burns’s definition of the *Ursatz* above is fatally vague since she does not adequately specify the structure of its parts. The description of the *Urlinie* as a “melodic stepwise

41 Early middleground levels, however, typically include some prolongations in the upper voice.
descent to the tonic” neglects to mention the importance of the scale degree initiating the
descent, and her description of the *Baßbrechung* as a “characteristic arpeggiated bass”
fails to indicate the precise nature of the arpeggiation. Of course, Burns no doubt
intentionally omits these details since she admits multiple, mutually exclusive *Ursatz*
structures.

Burns, therefore, uses the term *Ursatz* analogously even though she does not state
this directly. In her view, the *Ursatz* is a mutable, amorphous structure instead of an ideal
musical prototype that summarizes tonality and orients the voice-leading transformations
that generate tonal musical surfaces. Burn’s idea of the *Ursatz* resembles more a
generalized outer-voice counterpoint, what Schenker might have called an *Außensatz*.43

While the brief quotation above may seem slim evidence of a significant
reinterpretation of Schenker’s idea of the *Ursatz*, Burns’s models for the Phrygian and
Mixolydian modes (examples 2.2.3 and 2.2.4 respectively) make this clear. In each of the
Phrygian and Mixolydian models (except, of course, the Mixolydian *Ursatz* beginning on
4), the *Urlinie* and *Baßbrechung* traverse different triads: the upper voices of these
models express the triad built on the modal final, while the lower voices express either
the subdominant or submediant triad (to use tonal terminology) in whole or in part. The
two voices of these *Ursätze*, therefore, are divided and create an internally conflicting
structure antithetical to Schenker’s idea of the *Ursatz* as an indivisible unity arising from
a single triad. This is indeed a wholesale revision that one cannot rationalize within a

42 Again, I return to discuss this interpretation of the *Ursatz* in chapter 3.
43 John Rothgeb (1994) explains *Außensatz* as a theoretically neutral term that Schenker uses to
indicate any outer-voice setting. It carries none of the generative, axiomatic properties of the *Ursatz*. For
more discussion of the *Außensatz* concept, its role, and its relationship to the *Ursatz*, see: Lubben 1993,
1994; Pastille 1990a, 81–82.
strictly Schenkerian framework. On the other hand, Burns’s models do succeed as outer-
voice contrapuntal settings. The structures of the Mixolydian and Phrygian models
confirm that Burns indeed regards the Ursatz as a confluence of two distinct voices rather
than a conceptual unity.

Ironically, the disjointed character of Burns’s Phrygian and Mixolydian Ursätze
contradicts her purpose for proposing them, which is to posit a kind of modal organicism
(Burns 1995, 16) by granting to modal compositions a unified tonal/contrapuntal
structure across multiple hierarchical levels. One wonders how a model which is itself
internally disjunct can be a source of structural integration. Burns is aware of this
difficulty, but she does not resolve it. Instead, she embraces it for a perceived interpretive
advantage:

For Schenkerian analysis, the same theoretical problem emerges in the
Mixolydian mode as in the Phrygian mode: a plagal arpeggiation does not unfold
the tonic through its own triad; therefore, it cannot be argued that the analysis has
been generated from a single triadic expression...However, once again I believe
that the analytic gains outweigh this theoretical drawback. An analysis that admits
structural subdominant emphasis in Mixolydian will not have to assert that the
piece “is in C, but closes on the dominant,” or that the piece “modulates from one
key to another (C to G).” Such an analysis will assert a fundamental structure
which relates audibly and logically to the foreground structure of the final plagal
cadence. (Burns 1995, 50)

Despite any pragmatism, Burns cannot have it both ways: she cannot simultaneously
claim for her methodological framework the structurally unifying power of an Ursatz yet
propose Ursätze that are themselves disjointed internally. This is a theoretical
contradiction that is untenable and any attempt to resolve it by appealing to a preferable
analytical result quickly dissolves into solipsism.
Having seen Burns’s most significant revisions of Schenkerian theory, we may now examine the underlying metatheoretical framework that produces them, i.e., the interpretation of Schenkerian theory that allows Burns to retain certain elements of it and discard others. While Burns does not extensively discuss how she understands Schenkerian theory as a theoretical system, one key passage in her monograph tips her hand. In fact, we have already seen a hint of it in the last quotation above when Burns speaks of the relationship between her Phrygian and Mixolydian Ursätze and the “plagal” cadences of chorales in these modes. Before introducing her analytical models, Burns endorses Nicholas Cook’s understanding of Schenkerian theory as a metaphor that envisions whole pieces as expanded cadences:

Nicholas Cook aptly describes Schenkerian analysis as “a kind of metaphor according to which a composition is seen as the large-scale embellishment of a simple underlying harmonic progression, or even as a massively-expanded cadence; a metaphor according to which the same analytical principles that apply to cadences in strict counterpoint can be applied, mutatis mutandis, to the large-scale harmonic structure of complete pieces.” Cook’s interpretation of Schenkerian analysis relates well to my analytic solutions for the modal chorales. I attempt to show an organic connection between foreground gestures (such as cadential progressions) and deeper-level harmonic structures, a connection that lends a sense of organicism to the musical work. (Burns 1995, 16)

First of all, one must notice that Cook’s, and now Burns’s, understanding of Schenkerian theory is in one respect factually incorrect. Schenker himself explicitly rejects the idea of equating the Ursatz with a cadence (1979, §28), and to do so is to misunderstand gravely the identity of the Ursatz and its role in the theoretical system. In this view, the Ursatz

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44 Again, Burns justifies her approach only by stating that she does not wish to interpret modal composition through a tonal framework and thereby accept Schenker’s position that modal compositions are imperfect. Burns never explicitly addresses how she can successfully use certain concepts from Schenkerian theory while simultaneously revising some of its foundations.

45 The quotation from Nicholas Cook in this passage may be found in Cook 1987, 36.
becomes nothing more than a generalized, outer-voice contrapuntal setting, an interpretation that Burns no doubt endorses.

We are left, however, to ask how one can support such a demonstrably erroneous interpretation of Schenkerian theory. The solution is simple if one believes that Schenkerian theory is not at all a coherent theory of musical structure per se, but rather an elaborate metaphor, a particular perspective that has no literal or necessary connection to music but expresses merely a sophisticated opinion. If this is the case, then an individual analyst may freely pick and choose what to adopt and what to discard in the name of pragmatism, that is, to serve a particular analytical agenda. Nicholas Cook extrapolates from his definition of Schenkerian theory above to precisely this position:

> It follows that there is no reason why the normal conventions of Schenkerian analysis should not be replaced by others where this has some practical advantage, provided that the analyst makes it clear what conventions he is adopting or inventing—that is to say, that he makes it clear what he sees as being prolonged and by what means. Doing this can result in useful analytical results with music which is more or less a closed book for traditional Schenkerian analysis. (Cook 1987, 59)

Clearly, Burns also believes the same, as we see in her purely pragmatic justification for proposing *Ursätze* that are internally disjointed: opportunistic analytical advantage trumps theoretical rigour. Instead of a coherent theory, Schenkerian theory is for her a collection of useful analytical tools which one may use to achieve personal analytical goals. Incidentally, Burns’s mind in this regard comes across implicitly as well in how she characterizes Schenkerian theory in passing. She frequently refers to it as

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46 In this regard, Burns’s position is difficult to pin down precisely, for at some moments she elevates analytical expediency over theoretical principles, while at others times she takes painstaking care to articulate the theoretical underpinnings of her analytical decisions. Cook is far more transparent about his position. For an explanation and criticism of Cook’s contentions on this point, see: Brown and Dempster 1988, 1989, 1990; Cook 1989b.
“prolongational analysis” (1995, 39), a purely generic term that neutralizes its powerful theoretical statements about tonality and musical structure.

In the end, Burns’s perspective does not differ substantively from Neumeyer’s, even though their work is dramatically different in both their details and their results. Indeed, Burns explicitly invokes Neumeyer’s methodological dichotomy concerning the application of Schenkerian theory to modal music: either one adopts Schenkerian theory as is and interprets modal compositions as inferior according to “tonal analytic values,” or one adapts Schenkerian theory as required to accommodate modal music (1995, 39–40). Burns also succumbs to the same pitfalls as Neumeyer concerning a general lack of sufficient explanation as to how one can successfully use Schenkerian analytical techniques while simultaneously severing them from their theoretical bases.

For example, consider again Burns’s DOR-UN and AOL-UN voice-leading transformations that prolong a pitch by the upward skip of a third (Burns 2005, 128–31). To be sure, Burns indeed considers these patterns as neighbour notes instead of consonant harmonic skips, as her commentary and illustration (Burns 1995, 128–29, example 62) reproduced below indicate:

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Example 2.2.6. The Dorian upper neighbour (Burns 2005, 128–29)

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These devices appear only in the bass voices of the Dorian and Aeolian Ursätze in examples 2.2.1 and 2.2.2 above; but, Burns also identifies them melodically at lower levels of structure. Again, Burns borrows this idea from Phillips 1981.
Dorian cantus firmi are strongly characterized by melodic progressions which emphasize 5 (A) and 7 (C). This emphasis is often realized in a construction which will be called the Dorian upper neighbor (DOR-UN), shown symbolically in Example 62. Here the C is flagged; it is not a harmonic interval from the A, an expression of the third A–C, but rather a melodic embellishment of the A, in the manner of a neighbor note figure. (Burns 2005, 128 [italics in original])

Clearly, this voice-leading pattern is not compatible with Schenkerian theory. Given its foundations in strict counterpoint (Schenker 1979, §108, §196), Schenkerian theory cannot accommodate the idea of a neighbour note lying further than a step from the pitch it prolongs. Additionally, the DOR-UN and AOL-UN devices exceed the available list of voice-leading transformations that Schenker offers in Free Composition.48 Burns, however, never explains how one may successfully introduce these, or any of her other original voice-leading transformations into Schenkerian theory while simultaneously retaining Schenker’s conception of composing-out. She uncritically separates techniques of voice-leading transformations from their theoretical basis.

In the same manner, Burns’s reader is left to wonder how she can engage Schenker’s notion of harmonic prolongation within a modal compositional environment. Burns’s only answer is her inclination to hear a modal harmonic directionality, a goal-oriented motion analogous to tonality:

However, it distorts modal practice to deny completely the existence of goal-oriented expectations which may or may not correspond to those of the tonal practice. Instead of understanding modal harmonic relations as “self-contained,” perhaps it is better to hear them as context-dependent. In the case of the Phrygian mode, for example, is it not possible to understand that a concluding IV–I progression could resolve tensions that were established through the harmonic and melodic fabric of the composition? (Burns 1995, 15)

48 See Brown 2005 (76–83) for concise lists of Schenker’s voice-leading transformations. One may also consult Free Composition (Schenker 1979) Part 2, Chapter 2 (§§53–155), and Part 3, Chapter 2 (§§183–241).
While Burns’s invitation to hear distinctly modal harmonic directionality may indeed be plausible and worth investigating, asserting such directionality does not by itself justify treating modal harmonies like *Stufen* that can be prolonged as Schenker envisions the process for tonal composition.\(^4^9\) Quite simply, the necessary theoretical and analytical mechanisms are lacking. Furthermore, among other things, Burns never adequately justifies how we may use Schenkerian theory to give background structural significance to a plagal cadence or to begin an *Urlinie* on 4, among other things. Her quickness to use analytical procedures and theoretical concepts to understand a repertoire external to the development and orientation of these tools is severely underdetermined: she consistently avoids the key epistemological questions and offers instead an appeal to aural intuition and temporary analytical advantage. Essentially, she provides no reason why we can conclude that Schenker’s analytical techniques can still operate when disconnected from their theoretical underpinnings.\(^5^0\) Like Neumeyer, Burns uses Schenker’s analytical symbology but divests it of its full meaning and produces a cognitive dissonance that remains unresolved. As we have seen, she uses Schenker’s beamed half-note notation for

\(^{4^9}\) Burns has no reservations about applying the term *Stufe* to triads built on the degrees of a modal scale (1995, 25). Incidentally, Burns’s proposition of modal directionality here is somewhat unsuccessful since she does not specify to which or to whose modal compositional practice she is referring. As I pointed out in chapter 1, modal practice as a category is not standardized in any way, unlike tonal practice, since traditional modal theory is not strictly prescriptive. If modal directionality exists in Bach’s music, we should not therefore assume the same pari passu of music by Machaut or Byrd, for example.

\(^{5^0}\) Citing Cook 1987, Richard Cohn (1992a, 170) argues precisely this position; i.e., that Schenkerian analytical techniques can exist apart from their theoretical foundations. See Brown 1998 for a direct response to Cohn.
her modal *Ursätze* even though her conception of this structural level is radically different than Schenker’s; but, she never addresses this issue.\(^{51}\)

At heart, Burns’s work is an attempt to interpret Bach’s modal chorale harmonizations within an organically unified, hierarchical structural system. This effort, however, directly conflicts with Schenker’s view that modal compositions do not exhibit a unified structural design since he found a disjunction between their horizontal and vertical dimensions: the vertical/harmonic dimension contains a superabundance of triads that do not unfold in the horizontal/melodic dimension. Burns does not resolve this difficulty; instead, she embraces it and enshrines this conflict as the ultimate source of structural unity in Bach’s chorales. Ironically, Burns’s analytical models seem to have the opposite effect of their intention: rather than revealing a deep structural unity, her *Ursätze* seem to confirm Schenker’s original observation that the vertical and horizontal dimensions of modal compositions are not integrated.

### 2.3. Renwick’s Analytical Model

William Renwick (1992, 2006) is the only scholar who has published detailed analyses of Bach’s modal chorale settings for organ; Burns and Neumeyer, of course, focus on the SATB harmonizations. Unlike Burns and Neumeyer, however, Renwick does not propose a new analytical or theoretical model for approaching these works. Instead, he offers some insightful but isolated analyses that suggest potential for a more general

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\(^{51}\) Burns, however, does explain her use of double beams for the PH-VI, PH-P, MX-P1, and MX-P2 progressions (see examples 2.2.3 and 2.2.4). Speaking with regard to the PH-VI progression, she notes that since it “departs from traditional Schenkerian paradigms, it is underscored with this unique notation” (Burns 1995, 56). This explanation, however, implies that events not marked by a unique notation do conform to traditional Schenkerian paradigms. As I have discussed and as Burns freely acknowledges, however, this is not the case.
approach. For the most part, Renwick follows Schenkerian methodology, and he does not propose any significant modifications.

Example 2.3.1 below reproduces two representative analyses from Renwick’s work: the first (a) is a sketch of the chorale prelude “Das alte Jahr vergangen ist,” BWV 614, from the *Orgelbüchlein* collection; the second (b) is the foreground and middleground sketches of the *manualiter* “Kyrie, Gott Vater in Ewigkeit,” BWV 673, from *Klavierübung III*. These analyses are unique in several respects. Let us briefly examine each in turn, beginning with BWV 673, before reflecting on Renwick’s methodology in general.

**Example 2.3.1. Renwick’s chorale prelude sketches**

a) “Das alte Jahr vergangen ist,” BWV 614 (Renwick 2006, 73)
b) “Kyrie, Gott Vater in Ewigkeit,” BWV 673 (Renwick 1992, 62)

The three *manualiter* Kyries, BWV 672–674, from *Klavierübung III* are noteworthy within Bach’s output since they are nearly freely-composed modal compositions (Renwick 1992, 55): instead of using the chorale melody *Kyrie Gott Vater in Ewigkeit* as a *cantus firmus* (as do the three pedal-obbligato Kyries from the same collection), these shorter Kyries use only the first three notes of the three chorale verses.
as a kind of fugal subject or recurring motive. As such, the structures of these pieces do not derive completely from the chorale, but Bach freely composes according to the musical relationships suggested in the incipits of the three verses.

Examining the analysis of “Kyrie, Gott Vater in Ewigkeit” above, one element emerges predominantly: Renwick does not find a single tonal structure in the music, but rather a seamless, open-ended succession of three distinct tonal areas, C major–D minor–A minor. This music, therefore, does not evince a unified background structure like the Ursatz, and as a result the composition is incomplete from a tonal perspective.

Additionally, the analysis does not reveal a single Urlinie, but several corresponding to the different tonal centres. Nevertheless, the upper voice is entirely conjunct. The details of Renwick’s foreground voice-leading analysis are strictly Schenkerian and do not introduce any novel concepts. His graphic notation is standard as well, and the middleground sketch does not use any notation that might cause ambiguity. For example, Renwick avoids beaming the bass line to simulate a structural Baßbrechung that does not exist here in the same respect as Schenker’s original description of it.

Before moving on to the next graph, it is worth noting that Renwick’s interconnected but not globally unified tonal centres are not as far removed from traditional Schenkerian practice as they may seem. In fact, Schenker discusses in Free Composition two ways in which a composition can demonstrate local-level tonal unity without a completely realized background to hold the music together at the highest level.

52 Besides these Kyries, Bach composed several other compositions in a similar fughetta style based on the incipit of a chorale melody. Examples include BWV 696, 697, 698, and 703. These and others may be found among the individually transmitted compositions on the chorale.

53 See Renwick 1992 for analyses of each of the three Kyries. In his conclusion, Renwick (1992, 68–69) attributes the unique tonal structures of the three settings directly to the characters of the melodic incipits Bach uses imitatively.
of structure: first, the auxiliary progression (1979, §§244–45, fig. 110) in which the first tonic is omitted from the structure; and second, incomplete progressions which omit the final tonic (1979, §307, fig. 152).\textsuperscript{54} Schenker’s sketch of Bach’s prelude BWV 999 (1979, fig. 152-6), reproduced in example 2.3.2, is especially pertinent when compared to Renwick’s analysis of “Kyrie, Gott Vater in Ewigkeit.” In this case, Bach’s music contains neither a complete \textit{Urlinie} nor a complete background harmonic progression:

> In the absence of a fundamental line and a completed arpeggiation I–V–I, the example does not manifest a self-contained, undivided form. This composed-out I–V can only be understood as a prelude, in the strictest sense, to a piece in \textit{c} minor. (Schenker 1979, §307)

\textbf{Example 2.3.2. J. S. Bach, Prelude, BWV 999 (Schenker 1979, fig. 152-6)}

![J.S. Bach, Twelve Little Preludes, No. 3 (BWV 999)](image)

Connecting to this, Renwick suggests that one way to account for the lack of global harmonic unity in Bach’s \textit{manualiter} Kyries is to understand them as excerpts, or internal segments of longer hypothetical pieces in C major (1992, 71), just as Schenker interprets BWV 999 as connected to subsequent music that would complete the C-minor harmonic progression. Bach’s Kyries succeed at “creating an impression of unity which

\textsuperscript{54} For more discussion of these techniques, see: Brown 2005, 182–83; Burstein 2005; Ayotte 2008. Interestingly, Ayotte 2008 reveals that Schenker’s own compositions use incomplete background harmonic progressions that can be interpreted within the context of directional tonality. As a representative example, see Ayotte 2008, 94–107, for an analysis of Schenker’s song \textit{Heimat}, op. 6/1.
may or may not be genuine in the final analysis” (Renwick 1992, 72). Therefore, even though Renwick’s analyses appear to contradict normative Schenkerian practice, we do find a mechanism already within Schenkerian theory to account for the incomplete structures that he shows.

The same points raised above apply equally to the graph of “Das alte Jahr vergangen ist,” example 2.3.1a. Again, Renwick analyzes the structure as an incomplete harmonic progression with an incomplete *Urlinie* that moves seamlessly between D minor and A minor, and the details of his foreground voice leading are faithful to Schenkerian techniques without introducing novel concepts. Unlike the graph of the Kyrie, however, Renwick does not include half-note notation for the structural upper voice or the underlying harmonic progression, and he never addresses the reasons for this omission. Renwick, however, implies multiple structural levels in his graph by using conventional slurs, stems, and beams; and as a result, we can conclude that he considers levels beyond the foreground to be appropriate for this music. Additionally, the reader struggles to interpret from the graph alone the final A4 to G♯4 beamed together in the final two measures of the music. Renwick’s two-level beaming indicates that these notes are connected conceptually to the initial A4, 5 in D minor; yet, the key has changed from D minor to A minor at this point in the analysis and the connection is obscure. Renwick’s

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55 Incidentally, one could also view the middleground harmonic progression of BWV 673 as an auxiliary progression in A minor combined with a missing final tonic. In this interpretation, Renwick’s indications of C major and D minor would become III and iv respectively in the key of A minor creating a large-scale III–iv–V–i harmonic progression, with the A-minor tonic in this series arriving only in the antepenultimate measure of the music. In terms of the *Urlinie*, C major would support 5, D minor supports 4 (which itself is prolonged through ascending and descending third progressions involving F5 above it), and the first A-minor tonic appears under 3. Then, of course, the music ends with 2 over dominant harmony in A minor.
prose accompaniment to the graph, however, clarifies this situation. He views the music as open-ended and cyclic, mimicking the progression of the year that the text narrates:

I suggest that Bach is intentionally reflecting upon the complex meaning of a new year, in both its philosophical and theological contexts—a turning point; a Janus-like reflection backward and forward; regret for the past and hope for the future; the place between before and after. An attempt at a perfectly unified view may miss the point that this chorale melody in its later version is about transition and change. The opening A provides a successful bridge from the ending of one verse on E to the beginning of the next, in D. A is the common denominator—and the reciting note—but it is not therefore to be construed as tonic. (Renwick 2006, 76)\(^{56}\)

This interpretation accounts for the beaming and the lack of scale-degree notation over the final A4 and G\#4: A minor is not an independent key area in this music, but it is instead a harmonic mediator between D minor and the E-major triad that must end the chorale to harmonize the G\# in the melody.

Having discussed Renwick’s technical approach to these pieces, we can now identify the broader implications and motivations behind it. First, we must recognize that Renwick’s method of analyzing interlocking tonal centres not only potentially fits within the Schenkerian framework, but it seems to arise directly from a conscious intention to remain as faithful as possible to Schenker’s theoretical and methodological framework. As discussed in chapter 1, Schenker consistently evaluated modal music in tonal terms, and Renwick demonstrates the methodological consequences of this perspective by analyzing small tonal pockets (some completely expressed and some not) that coexist but do not ultimately cohere at the background level. These pieces present incomplete harmonic and contrapuntal structures that fall short of the global integration that

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\(^{56}\) Renwick’s reference here to the “later version” of the chorale acknowledges that the version Bach sets here differs considerably from the original 1558 version. See Renwick 2006, 66–68, for a discussion and analysis of the different versions of this chorale melody.
characterizes most tonal music. In a way, Renwick’s analyses demonstrate one facet of the conflict between horizontal and vertical that Schenker observes in modal compositions;\textsuperscript{57} but instead of proposing modifications of Schenkerian theory that would unduly force Bach’s music into unified background structures, Renwick allows the conflict to exist as an essential and defining characteristic of the music. From the Schenkerian perspective, modal music lacks the globally unified structure of tonal music, and Renwick gives this position full credence while at the same time offering coherent and internally consistent interpretations of the music he considers.

The most conspicuous element of Renwick’s approach in the present context, however, is his complete avoidance of explicitly modal terminology and concepts in his sketches. Even though he discusses modal terminology, it does not inform his analyses directly. This decision surely arises in part from Renwick’s general goal to remain within the confines of Schenkerian theory; but it also stems from his contention that neither “Kyrie, Gott Vater in Ewigkeit” nor the “Das alte Jahr vergangen ist” is entirely modal in design, just as they are not entirely tonal. This interpretation of “Das alte Jahr,” in fact, is relatively straightforward and proceeds directly from the character of the chorale melody, reproduced in example 2.3.3 below (Renwick 2006, 67), which lies between tonality and modality. The first five phrases are mostly Dorian while the last phrase veers more toward Phrygian with its ending on G\#\textsuperscript{57}, the raised third of the triad built on the Phrygian final E. This peculiar ending, however, requires an implied harmonic content since G\#
cannot function as a modal final; and in this respect, the melody evinces a more tonal orientation (Renwick 2006, 66–69).

Example 2.3.3. Das alte Jahr vergangen ist (Renwick 2006, 67)

Since Bach uses the chorale melody as a cantus firmus for BWV 614, the harmonic structure of the music reflects this dual identity, and the successive tonal areas in Renwick’s analysis capture well this unique quality.

Conversely, Renwick questions the modality of the Kyrie settings precisely because they do not use the Phrygian chorale melody as a cantus firmus. Due to the nature and brevity of the chorale incipits that Bach uses for imitation, Renwick believes that these settings cannot convincingly establish the Phrygian final E as a tonal centre within the constraints of a fugal process:

In the first Kyrie, the beginning on G requires an answer that begins on D, giving an undeniable sense of G as tonal centre. And in the final Kyrie, Bach sets up anything but E Phrygian by answering B with F♯, not even a diatonic note in the Phrygian mode. Only the Christe, beginning as it does on E, has the potential to express E in a convincing manner through a fugal exposition, but even here the constraints of Bach’s tonal language preclude a true expression of E as a tonal centre. Just as surely as the first E asserts the centricity of E, the following D denies it and suggests C or G as possible tonal contexts. The cantus itself ends with F–E, denying a concluding perfect cadence. While it is nevertheless possible to end these pieces on E triads (as Bach does) it is not so easy to hear these as tonics or centres of tonal focus. (Renwick 1992, 60)
For Renwick, then, the complete absence of tonal centricity about E, an “avoidance of Phrygian prolongation” (1992, 71), for the majority of the music precludes a modal interpretation. Discussing the simple SATB harmonizations of this chorale melody, Renwick states that Bach “pays lip-service to the mode by beginning and ending on E, but the interior tonal relationships centre primarily on G major and D minor” (1992, 59). Presumably, the situation is identical in the Kyrie settings: Bach ends on E with a hat tip to tradition, but he ultimately conceives of the music in terms of tonal relationships.

In the end, Renwick’s work shows no underlying analytical or theoretical agenda other than a desire to explore the latent capabilities of Schenkerian theory and to propose thought-provoking analyses of some interesting and unique compositions. Since he considers this music as neither fully tonal nor fully modal, we find no underlying theoretical framework relating to the structure of modal composition or the application of Schenkerian theory to non-tonal repertoire. Renwick’s work is ideologically neutral with respect to Schenkerian theory, and we are therefore free to examine its implications for future study without further comment. His approach raises two general points that deserve additional consideration: first, the extent to which Bach uses tonal language in his settings of modal chorale melodies; and second, the viability of practicing Schenkerian theory without recourse to the Ursatz.

Renwick bases his method on the assumption that neither “Kyrie, Gott Vater in Ewigkeit” nor “Das alte Jahr vergangen ist” is entirely modal. Presumably, given the difficulties of reconciling Schenkerian theory with modal composition, he believes that one cannot prudently use Schenkerian analytical techniques for the subset of Bach’s
music that falls completely under the control of a modal *cantus firmus*. One might propose, however, the opposite of Renwick’s claim. Rather than being an obstacle to a modal interpretation of the Kyrie setting, for example, perhaps Bach’s technique of composing consecutive but unintegrated tonal areas is instead a definitive feature of his modal compositional practice. In other words, perhaps distinct and even lengthy areas of tonal prolongations occur regularly within Bach’s modal compositions, and these tonal areas may indeed be centred around a pitch other than the modal final. Of course, such structures are foreign to music of an earlier era, but given Bach’s historical position and normally tonal idiom this proposition seems highly plausible. Bach frequently blends tonal and modal language in his compositions on the Lutheran chorale, and we need not deny either of these in favour of the other: modal composition for Bach need not preclude tonal material, and vice versa. I believe that Renwick’s analyses, albeit unintentionally, demonstrate this possibility quite clearly.

Finally, Renwick’s work begins to show us that practicing Schenkerian theory and analytical techniques can be meaningful without relying on the *Ursatz* as the ultimate epistemological principle governing the analysis. Renwick’s graphs are coherent from a Schenkerian perspective and internally consistent even though they do not show a unified background structure: the *Urlinie*, harmonic *Stufen*, and recursive voice-leading techniques operate locally without receding ultimately to a global structural design, such that defines tonality. While this may not seem particularly astonishing at first glance,

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58 Clearly, Renwick’s approach differs from Burns’s and Neumeyer’s since he does not revise the form of the *Ursatz* or deny it altogether. Simply not appealing to the *Ursatz* is substantively different than revising or discarding it.

59 This, of course, notwithstanding Renwick’s suggestion that we might view the Kyrie and “Das alte Jahr” as fantasia-like excerpts of larger hypothetical pieces.
the implications of this approach are significant for future work with Bach’s modal compositions; for, it suggests that the hallmarks of Schenker’s theory and analytical practice—the *Urlinie*, *Stufen*, structural levels, and voice-leading transformations—may reasonably exist apart from a functional, monotonal setting which the *Ursatz* graphically and conceptually encapsulates. In this interpretation, the *Ursatz*, understood as the prototype of tonal structure, does not cause the harmonic and melodic diminutions of subsequent levels, but these compositional procedures lead inductively to the *Ursatz* as a natural consequence when they are organized in a specific way. I explore the implications of this idea in the following chapter.

**Conclusion**

This chapter has examined three approaches to the problem of applying Schenkerian theory to Bach’s modal music. The work of the three scholars I have evaluated here represents the total body of literature dealing in any systematic way with this subject. While the studies in question are certainly unique and differ from each other to various degrees, they do retain some common elements between them.

Importantly, each of these scholars recognizes the explanatory power and fruitfulness of Schenkerian theory and analytical techniques. Unlike the purely descriptive and taxonomical terms of traditional modal theory, Schenkerian theory offers a mechanism to explain musical structures, and the impetus to apply Schenkerian theory to non-tonal repertoire must stem from a desire to capitalize on that explanatory power to the fullest extent possible. Constructing a Schenkerian voice-leading graph of modal
music always presumes, either explicitly or tacitly, that this analysis conveys more significant structural information than assigning modal designations or listing cadential scale degrees in the highest voice, for example. These studies also align in their avoidance of Schenker’s traditional *Ursatz* forms. Obviously, one cannot reconcile the definitively tonal character of the *Ursatz* with modal compositions that do not evince the same characteristics in the organization and structure of their internal pitch relationships. Any attempt to capture the structure of modal compositions with the *Ursatz* would be positively and objectively erroneous.

Despite these similarities, each author adopts a different solution to the problem of reconciling Schenkerian theory and analytical techniques with Bach’s modal chorale settings. In abandoning the *Ursatz*, both David Neumeyer and Lori Burns decide to replace it with their own constructions. Neumeyer (1989; Neumeyer and Tepping 1992) borrows from traditional modal theory and introduces an ad hoc “tonal/spatial background/middleground” construction based on the modal octave species divided into its constituent species of fifth and fourth. Modal species also dominate his foreground-like “tonal/spatial/linear” analysis. Neumeyer’s proposed structures bear not even a passing resemblance to Schenker’s original *Ursätze*. Lori Burns (1991, 1993, 1994, 1995) on the other hand, borrows the basic makeup of Schenker’s *Ursätze*, but she modifies them extensively to suit both her newly defined modal voice-leading techniques and her own intuition of the harmonic and melodic structures of Bach’s modal chorales. Instead of introducing novelties, William Renwick (1992, 2006) avoids proposing background structures for his analyses altogether. Instead, he allows the lack of global-level unity to
stand in his graphs as a distinctive feature of Bach’s compositions: he does not force the
music into a unified structure that does not accurately explain the music. Even though it
may seem as if Renwick is in this regard circumventing the difficulties inherent in this
project, his analyses can fall within a purely Schenkerian paradigm as Schenker himself
considered music that does not exhibit a unified background structure.

Neumeyer and Burns justify their technical revisions of Schenkerian theory by
disputing its claim to be a theory of musical structure: for Neumeyer, Schenkerian theory
is an ideological “interpretive practice,” and for Burns it is a complex metaphor for
capturing personal hearings and analytical intuition. Effectively, they reduce
Schenkerian theory to a collection of analytical tools that one may adopt, reject, or
modify individually in order to achieve a certain analytical result. I believe that these are
counterintuitive interpretations of Schenkerian theory, and they are untenable without
detailed argumentation. Indeed, both Neumeyer and Burns fail to explain adequately how
their additions cooperate with Schenkerian theory or how certain principles of the theory
can operate in isolation from the whole: among other things, Neumeyer does not explain
how modal interval species can interact with harmonic prolongation, and Burns does not
explain how Schenker’s theory of structural levels and the recursion of voice-leading
techniques can yield background structures that are internally disjointed. While their
work is certainly interesting, both Neumeyer and Burns present analytical models that are

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60 Indeed, Burns’s view that Schenkerian theory is simply a metaphor for expressing personal
hearings and intuitions is clear from her stipulations that her approach is intended to express such
individual interactions with Bach’s music: “Yet, my analyses are neither an accurate contemporaneous
understanding of modal chorale practice, nor an accurate application of Schenkerian linear graphing
techniques. Rather, they are an account of the music that makes sense to me, a modern analyst grappling
with a specific repertoire that exists in a historical framework” (1995, 38 [italics in original]): “It is
important to stress that my ideas about modal harmony are based on my own experience with the Bach
chorales, as affected by historical readings, and as influenced by Schenkerian models” (1995, 40).
ultimately self-referential and, as a result, do not readily promote further application beyond their original contexts.

Conversely, Renwick proposes neither any modifications of Schenkerian theory nor any alternative interpretations of it. His work, instead, suggests areas for additional consideration as we further investigate Bach’s modal compositional practice. Renwick’s analytical choice to show interconnected, but not integrated tonal centres in Bach’s music prompts us to wonder whether such structures actually characterize Bach’s modal compositions. This would contradict Renwick’s assumption, however, that his method is viable since the music he considers is neither purely tonal nor purely modal. On a theoretical level, we can also look to Renwick’s work as an example of how Schenkerian theory may be practiced successfully without recourse to the *Ursatz* as the ultimate explanatory principle. Renwick’s analyses are intelligible even though they do not involve the *Ursatz*; and in this sense, they suggest that one may be able to find a legitimate way to separate the *Ursatz* from the other premises of Schenkerian theory without significantly departing from its central tenets.

Neumeyer and Burns both believe that extending Schenkerian theory to modal music is a zero-sum proposition: if one uses Schenkerian theory without modification to investigate modal music, then one must endorse Schenker’s contention that modal music is imperfect and inferior to tonal music. Conversely, if one wishes to assert simultaneously the intrinsic value of modal music and the applicability of a Schenkerian perspective to this repertoire, one must remove, or at least modify, those elements of Schenkerian theory that lead to this conclusion: either we give up some of the theory or
accept that modal music is inferior to tonal music with regard to global unity and hierarchical structural integration. Notwithstanding that this value judgement is a natural corollary of Schenker’s theory, Neumeyer and Burns’s dichotomy is a false one. Schenkerian theory makes specific claims about musical structure and tonality, and any value-laden assessments about non-tonal repertoire are incidental. If one finds Schenker’s attitude toward modal composition unpalatable, one may freely discard this opinion and still investigate this repertoire using Schenker’s analytical tools and theoretical perspective. Crucially, the value judgement is not built conclusively into the theory, but it is an optional interpretation of the data that the theory provides: rejecting Schenker’s opinions about modal composition does not effect the empirical validity of the theory.

The decision in this case is identical to the one that rejects Schenker’s worldview without discarding the Ursatz or any other element of the theory that supposedly derives from his cultural politics. We may safely do this, as Matthew Brown observes, since the empirical consequences of this choice are nil:

Whereas eliminating crucial theoretical concepts, such as the Ursatz, severely restricts the explanatory scope and predictive power of Schenkerian theory, ignoring Schenker’s world view does not have anything like the same results. For example, Schenker’s nationalism has no bearing on the empiric testability of his theory; on the contrary, there is plenty of evidence to show that his concepts can be used to explain the behaviour of music by composers who were not Austro-German by birth...In this respect, music theory is no different from many other disciplines; after all, physicists have no problem separating Newton’s amazing contributions to science from his peculiar fascination with alchemy. (Brown 1998, 129–30)

Just as one does not need to be, as Carl Schachter puts it, a “monarchist or a pan-German nationalist to perceive musical hierarchies” (2001, 13), one does not automatically denigrate modal composition by looking at it through a Schenkerian lens. As Brown
mentions above, understanding Schenker’s worldview or his attitude toward non-tonal music as extraneous and rejecting them is far safer a path than either revising or eliminating the theoretical principles that may seem to reflect those opinions.

Before concluding this chapter, a few words are necessary concerning a particular group of authors which I do not address: these are Felix Salzer, Saul Novack, David Stern, and Peter Bergquist, among others, whose pioneering work applies Schenkerian theory to modal compositions as far removed from tonality as Gregorian chant and the organum of the Notre Dame and Compostela Schools to sixteenth-century polyphony.61

While their work is fascinating and worth an extended treatment, I do not offer one here for two reasons. First, with the exception of Saul Novack’s (1967, 96) sketch of the SATB setting of Aus tiefer Not schrei ich zu dir (Bach 1941, no. 10), these authors do not consider or analyze J. S. Bach’s modal music. As such, their work remains outside of the particular focus of this dissertation: as I have mentioned already (see the Introduction to the dissertation), the project of applying Schenkerian theory to music of the sixteenth century and earlier is substantively different than treating Bach’s modal compositional practice. Second, the chief motivation behind these scholars’ work is a desire to uncover analytically, i.e., within compositional practice itself, the gradual emergence of tonality and the compositional techniques that characterize it. Their project, therefore, is at heart a historical one searching for the seeds implanted in pre-tonal composition—such as goal-directed motion or the prominence of the interval of a fifth, etc.—that would develop into

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61 I do not include Cristle Collins Judd’s (1992a, 1992b, 1985) analyses of Josquin des Prez’s music as an example of similar work. Judd’s voice-leading graphs are not Schenkerian in orientation or methodology, and she explicitly distances her approach from one she labels “neo-Schenkerian” (1992a, 459), by which she means the approach Salzer, Novack, Stern, and Bergquist exemplify.
the procedures and structures of tonality. Consequently, this work requires evaluation from a historical as well as a technical perspective, and this remains the subject of another project.\textsuperscript{62} It is not my intention to evaluate or situate Bach’s modal compositional practice within a particular historical paradigm. Furthermore, the tonal procedures that these authors seek in situ are already developed in Bach’s time; and as a result, relating their work to Bach’s music is a simple category error.

In excluding these authors and the historical dimension from my own work, I do not claim thereby that historical concerns as such are invalid or bookish. Indeed, one could find much value in comparing Bach’s modal compositional practice with that of his predecessors.\textsuperscript{63} This comparison would potentially demonstrate a gradual evolution of compositional style and putative origins of Bach’s own musical language. Such a project, however, is certainly a logical extension of my own. One must first understand separately any elements or phenomena that are to be compared.

\textsuperscript{62} Schulenberg 1985–86 provides a historical criticism of the work of Salzer, Novack, and Bergquist. This article is dated in its characterization of Schenkerian theory and the state of knowledge surrounding it, but it provides a good beginning in considering these issues. For an exhaustive account of Felix Salzer’s views concerning music history and how these relate to his scholarly endeavours and publications, and to Schenkerian theory, see Koslovsky 2009, 2010a.

\textsuperscript{63} If we were to compare Bach’s modal compositional practice in his organ chorale preludes to a precedent, we might consider the chorale preludes of Dietrich Buxtehude, Johann Pachelbel, and Johann Michael Bach. Christoph Wolff (1991, 107–27) discusses Johann Michael Bach’s influence on J. S. Bach as revealed in the Neumeister chorale preludes. Mark Anson-Cartwright (2007, 282–83) identifies Renaissance polyphonic composition as the model for several of Bach’s embellished cadential patterns.
Chapter 3

Understanding the Ursatz: Schenkerian Epistemology and
Bach’s Modal Practice

Introduction

To this point, I have addressed the theoretical and analytical value of the
terminology and concepts of traditional modal theory and three distinct approaches of
existing work applying Schenkerian theory and analytical techniques to Bach’s modal
music based on the chorale. The purpose of both discussions has been mostly critical
since I intend to distinguish my own approach from both traditional modal theory and
scholarly precedent. This chapter, however, proposes a reconciliation between
Schenkerian theory and Bach’s modal practice in the chorale preludes for organ.
Ultimately, I argue that the logical and epistemological structure of Schenkerian theory
contains concrete implications for understanding and analyzing the kind of modal
composition that Bach’s chorale preludes typify: a compositional practice that
incorporates both modal and tonal characteristics by observing local-level tonal voice-
leading and harmonic procedures while abandoning the global framework that defines the
behaviour of tonal music in favour of models that reflect the contrapuntal and harmonic
implications of chorale melodies.

The most immediate obstacle to this reconciliation is the character of the Ursatz
and its structural priority in Schenkerian theory. By definition, the Ursatz cannot
accommodate musical patterns that are not tonal. No properly Schenkerian framework
can dispute this, and I do not intend to do so: I neither replace the Ursatz with an
analogous structure that mimics its theoretical power, nor do I attempt to fit modal
compositions within Schenker’s Ursatz. Instead, I suggest that understanding the Ursatz as a theoretical proposition and defining its epistemological role within Schenker’s system provide a legitimate context for an analyst to work freely without it while nevertheless maintaining a credible claim to an authentically Schenkerian approach that does not fall into opportunism or radical subjectivity. However counterintuitive it may appear to be, correctly understanding the Ursatz allows us to practice Schenkerian theory without it.

This claim is not as bold as it initially seems. In reality, nothing compels us to affirm every detail of Schenker’s thinking and approach in order to take full advantage of the extraordinary theoretical insights and analytical tools he provides. For example, as I mentioned in the previous chapter, we need not subscribe to the more ideological aspects of Schenker’s thought since they do not directly affect the empirical testability of the theory. These elements include Schenker’s aesthetic judgements, cultural politics, teleological interpretation of music history, and rejection of scientific method for musical inquiry.¹ As Matthew Brown observes, “what matters are not Schenker’s opinions per se but the arguments he invoked to support them” (1989, 17).

¹ Schenker’s rejection of scientific method is based upon an irreconcilable conflict he identifies between science and art. These passages from Free Composition exemplify Schenker’s position: “Music is always an art—in its composition, in its performance, even in its history. Under no circumstances is it a science” (1979, xxiii); “As the image of our life-motion, music can approach a state of objectivity, never, of course, to the extent that it need abandon its own specific nature as an art. Thus, it may almost evoke pictures or seem to be endowed with speech; it may pursue its course by means of associations, references, and connectives; it may use repetitions of the same tonal succession to express different meanings; it may simulate expectation, preparation, surprise, disappointment, patience, impatience, and humor. Because these comparisons are of a biological nature, and are generated organically, music is never comparable to mathematics or to architecture, but only to language, a kind of tonal language” (1979, 5). Besides statements like these, Schenker’s avoidance of a scientific orientation is most evident in the terminology he uses to explain his theory, e.g., nature versus art, genius, the biological urges of tones, etc. Matthew Brown (1989, 17–18) contends that Schenker errs by conflating statements about an object with the object itself: “Indisputably, music is no more a science than is the moon or an electron; it is rather statements and generalizations about music, the moon, or electrons that may or may not be scientific” (Brown 1989, 17).
In more technical matters, as well, scholars use the principles of Schenkerian theory to clarify, elaborate, or extend certain aspects of the theory in ways that do not always coincide perfectly with Schenker’s own formulation. For example, Peter Franck (2010, 2007) integrates invertible counterpoint at the twelfth within a strict Schenkerian framework despite Schenker’s ambivalence toward this technique and even outright rejection of it (Schenker 1979, §222) in favour of combined linear progressions. Similarly, Matthew Brown (2005, 171–202; 2004/2005) extends the possible applications of Schenker’s voice-leading transformations beyond those that Schenker considered. As shown in example 3.1 below, Brown (2004/2005, 160) permits the structural dominant to be elaborated with an intervening augmented-sixth chord, even though Schenker stipulates that any space between dominant and tonic may be filled by motion “through the third only” (1979, §189).

**Example 3.1. Elaborations of the structural dominant**

a) Schenker’s transformations of the dominant (1979, fig. 69.1–69.5)

![Example 3.1a](image1.png)

b) Brown’s transformation of the dominant (2004/2005, 163)

![Example 3.1b](image2.png)
Brown’s transformation of the dominant through the augmented-sixth chord represents a chromatic version of Schenker’s forbidden motion in his figure 69.5 above.

In both of the cases, however, the authors do not explicitly contradict Schenker or modify any key elements of his theory; instead, they extend Schenker’s perspective by following the implications of its principles. While one never senses discontinuity with Schenker’s thinking in their writing, this work nevertheless demonstrates a scholarly precedent for departing from certain aspects of Schenker’s original theoretical formulation. What distinguishes my approach from theirs, however, is my proposition to leave the *Ursatz* to the side, whereas Franck and Brown justify their respective positions in part by appealing directly to the *Ursatz*. Ultimately, this difference arises from my focus on Bach’s modal practice and not from an underlying methodological or metatheoretical incompatibility.

I divide this chapter into four sections. The first draws upon work by William Pastille (1990a, b) and discusses the *Ursatz* as an abstract prototype of tonality analogous to the Goethean *Urphänomen*, i.e., a purely conceptual model that does not exist in musical surfaces but underlies them as an ideal archetype. The second section retains the idea of the *Ursatz* as an abstract prototype of tonality but extends and clarifies it in important ways. Summarizing Matthew Brown’s work in reformulating Schenkerian theory as an empirical system of law-like generalizations (2005, 2004/2005, 1998), I describe how we may understand the *Ursatz* as the optimally compact, musical expression of Schenker’s global laws of tonal voice leading and harmonic progression.
Within this framework, the *Ursatz* emerges as the prototype of tonality since it summarizes and defines the musical behaviours that characterize tonality.

Finally, with this theoretical framework in place, the third section explains how one can find a legitimate context for analyzing Bach’s modal chorale preludes without relying upon the *Ursatz* as the ultimate explanatory principle, but at the same time retaining a strictly Schenkerian perspective. I make this argument in three separate stages. First, I argue that while the *Ursatz* secures the hierarchical structural unity that distinguishes tonal music, it does not itself engender the mechanism through which this structure occurs, i.e., composing-out (*Auskomponierung*). In other words, composing-out as a musical process can exist independently of the *Ursatz* which simply performs a global ordering of musical events. In proposing this, I neither revise the foundational principles of Schenkerian theory nor dismiss the *Ursatz* altogether; but instead, remaining consistent with the tenets of Schenkerian theory, I advance a particular interpretation of the relationship between the abstract *Ursatz* and concrete voice-leading transformations. Next, I identify the minimal criteria needed for composing-out to obtain apart from tonality: a musical language founded upon the triad as a discrete unit, as opposed to the purely intervallic-contrapuntal environment of Renaissance polyphony; and a musical environment that observes Schenker’s local laws of tonal voice leading and harmonic progression but falls short of conforming to the global laws. Bach’s modal compositional practice meets these criteria. Finally, I propose that we may fill the crucial logical and structural role that the *Ursatz* fills for tonality with what I call the *Urlinie-Stufe-Stimmführung* paradigm. This concept corresponds to Schenker’s theoretical thought and
analytical practice in the issues of Der Tonwille, and it elevates the Urlinie as the primary structural principle determining and integrating both the horizontal and vertical musical dimensions.²

This third section, therefore, confronts directly the key questions that previous work in this area has not addressed sufficiently. Most significantly, it demonstrates how composing-out can operate in music that is not fully tonal, i.e., apart from the context in which Schenker conceived it.³ This section explains how we can successfully use Schenker’s paradigmatic voice-leading transformations in a triadic and harmonic, but non-tonal setting. I also argue that the theoretical framework and analytical methodology I adopt do not depart from the essential tenets of Schenkerian theory; nor are they the result of opportunism. I do not take from Schenkerian theory whatever is convenient and discard the remainder in the name of pragmatism or subjective analytical autonomy.

### 3.1. The Ursatz as Prototype

Near the end of his study of the genesis of the Ursatz in Schenker’s publications, William Pastille eloquently summarizes its nature and the role it plays within the structure of Schenkerian theory:

> The ultimate significance of the Ursatz, then, is that it functions as the archetype for all musical pitch relations because it encapsulates symbolically both the horizontal and the vertical aspects of pitch relations. It is at the same time the universal model of both melody and harmony. The Ursatz offers, in the most

² In Der Tonwille, the Urlinie is not yet attached to the Ursatz, as we find it in Free Composition; but it is instead an “archetypical succession of tones” (Schenker 2004, 21) in the uppermost structural voice of music only. Consequently, my invocation of the Urlinie as it it appears in Der Tonwille does not imply the Ursatz: the Urlinie is not the upper voice of the Ursatz in the Der Tonwille periodicals. I discuss this in detail in the third section of this chapter.

³ The reader may recall that a lack of adequate explanation concerning this point formed one of the bases of my criticism of Neumeyer’s and Burns’s work with Bach’s modal chorales.
concise and fertile formula, all there is to know about the elaborational process that leads through the voice leading levels toward the musical surface. All transformations and metamorphoses of the *Ursatz* operate according to principles already present in the prototype. It is for this reason that Schenker ascribes organic qualities to the *Ursatz*: like a seed or an egg, it holds within itself the principle and the pattern of its future growth. (Pastille 1990a, 82–83)

There is much in this quotation that deserves some careful unpacking: the sense in which the *Ursatz* is a prototype of tonal pitch relations in both the horizontal and vertical musical dimensions; the notion that the *Ursatz* is symbolic; the way in which the *Ursatz* relates to musical surfaces through transformations, or elaborations; and the idea that the *Ursatz* itself contains the principles and patterns that effect this transformation into a musical surface. These issues are clearly fundamental to understanding the *Ursatz*, and they summarize the trajectory of this whole chapter; but, this section in particular deals with the idea of the *Ursatz* as a prototype that contains in itself the principle of its own elaboration and transformation.

In his other study of the origins and development of Schenker’s thought, Pastille (1990b) examines the similarities between Schenkerian theory and Goethean morphology (Goethe’s paradigm of understanding the physical world). Specifically, Pastille demonstrates an analogy between the *Ursatz* and Goethe’s idea of the *Urphänomen*, an abstract and general conceptual model through which we contextualize and understand individual objects as members of a class. The *Urphänomen* is an abstract prototype, i.e., an entity having a purely mental, not physical, existence, one that underlies individual instances of objects. Pastille describes Goethe’s idea of the *Urphänomen* in this way:

The key to Goethe’s morphology is his notion of the “type” or *Urphänomen*. He used these terms to designate a conceptual model underlying all the physical manifestations of a class of creatures, objects, or phenomena. The word “type” is
employed when the class under consideration consists of living organisms; the word *Urphänomen* when the class consists either of inorganic objects or phenomena. (Pastille 1990b, 30)

Essentially, the Goethean prototype is an idealized representation of a set of minimal characteristics that define the larger class to which a particular object belongs.

Example 3.1.1 (Pastille 1990b, 31; Brown 1998, 98) is an illustration from Meyer-Abich (1970, 35) of this Goethean concept of the *Urphänomen*. In this model, the centre of the circle represents the prototype, and the outer circumference represents the entire class of objects that participate in the prototype’s form or characteristics. The dashes within the circumference represent individual objects within this class.

**Example 3.1.1. Goethe’s *Urphänomen***

![Goethe’s Urphänomen](image)

The bi-directional arrow bisecting the model indicates that individual objects exist on a continuum of similarity to the prototype: some individuals within the class resemble the form of the prototype more closely than others. Regardless of proximity, however, no individual is identical to the prototype; instead, each individual manifests more or less features of the abstract prototype.

Examining Schenker’s discussion and treatment of the *Ursatz*, we may find many significant similarities to the Goethean abstract prototype. For example, Schenker clearly
demonstrates in his writings and analyses the idea of proximity but non-identity that the model above depicts, and we need only look to the voice-leading transformation of substitution (Schenker 1979, §§145–46, §235) and the concept of implied tones to witness this. As Schenker points out, melodic patterns at the middleground and foreground levels of structure may not always conform to the overall stepwise descent of the Urlinie: different melodic tones may substitute for the pitches of the Urlinie which, therefore, would be only implied by the musical surface. Example 3.1.2 below reproduces Schenker’s illustrations of substitution occurring at two different middleground levels and affecting different Urlinie tones: 3.1.2a is an early middleground level showing 7 substituting for 2; 3.1.2b is a later middleground level that shows 1 substituting 3.4

Example 3.1.2. Substitution and implied tones

a) Early middleground 2 substitution (Schenker 1979, fig 46.1)

b) Later middleground 3 substitution (Schenker 1979, fig. 104.3)

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The analysis in example 3.1.2b deserves some additional explanation. In this case, the substitution does not relate to the Urlinie of the Ursatz underlying this sonata. Instead, the substitution occurs within a middleground linear progression that reproduces an Ursatz form. Schenker calls this a “Transference of the Forms of the Fundamental Structure to Individual Harmonies” (1979, §242–43). A notable feature of this Ursatz parallelism (Burkhart 1978, 151–153) descending from 5 within a middleground prolongation of dominant harmony is its dissimilarity to the Ursatz of the piece, which Schenker interprets elsewhere as a descent from 3 (1979, §125, fig. 40.4).
As we see in these examples, Schenker explains these patterns by appealing to the *Urlinie* tone which is only implied in the music by the outer-voice counterpoint it creates with the bass arpeggiation (1979, §145). We understand the musical structure, therefore, with reference to an ideal prototype to which the music does not literally conform in every aspect. Furthermore, we may easily imagine other individual pieces that conform to the prototype to greater or lesser degrees, and we could represent these individuals as dashes within the circumference of the model of the prototype above at varying distances from the centre. These examples reveal both the systematic cognitive power of the *Ursatz* as prototype and confirm its abstract existence independent of musical surfaces. These analyses would be impossible if the *Ursatz* were comprised of real pitches at the foreground.  

Besides these analyses, Schenker’s descriptions of the *Ursatz* in *Free Composition* either explicitly confirm or imply its similarity to the Goethean prototype. Schenker’s claim that the *Ursatz* is arrhythmic (1979, §21), for example, implies that it is an abstract idea not identical with a musical surface, which is necessarily rhythmic. His discussion at the beginning of chapter 3, however, confirms the abstract nature of the *Ursatz* more directly. Here, he explains that “the forms of the fundamental structure represent a primordial state which exists beneath all voice-leading transformations” (1979, §27), and to illustrate this point he contrasts the forms of the *Ursatz* with cadences. Schenker’s commentary follows (I have reproduced his Figure 8 in example 3.1.3):

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5 For a complete discussion of implied tones, see Rothstein 1991.
The forms of the fundamental structure must not be confused with the cadences of the conventional theory of harmony. In the case of such cadences as shown in Fig. 8 the greatest importance is attached to the harmonic progression of the bass; the upper voice can have various forms, such as those shown in Exx. 2 to 7. This contrasts most significantly with the fundamental structure, whose upper voice, the fundamental line, knows only the descending direction. (Schenker 1979, §28)

Example 3.1.3. Schenker’s conventional cadences (1979, fig. 8)

The distinction that Schenker draws here confirms the abstract character of the Ursatz: cadences at the foreground are fundamentally different than the forms of the Ursatz which exist apart from, but still structure the actual musical surface. The tones of the Ursatz are not identical to melodic notes of the foreground or any structural level later than itself.⁶

In a particularly evocative and extra-musical analogy, Schenker again expresses the abstract nature of the Ursatz by comparing its influence on musical structure to the activity of a guardian angel. In this comparison, the Ursatz is a constant spiritual presence that permeates and guides musical surfaces while remaining distinct from them:

Thus in the creative act the fundamental structure is always present. It accompanies each transformation in the middleground and foreground, as a guardian angel watches over a child.

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⁶ In the essay “Further Consideration of the Urlinie: I” from The Masterwork in Music (Schenker 1994, 104–11), Schenker describes the Urlinie as “pure idea” not identical to actual pitches of the foreground, even though foreground pitches and the Urlinie may intersect (1994, 105).
Even the most successful graphic representation of the logical relationships between background and foreground must fail to portray the ultimate reality:

The fundamental structure is always creating, always present and active… (Schenker 1979, §29)

Schenker’s contention that graphic analyses do not adequately capture the dynamics between the foreground and the background is astonishing, and it underscores further the abstract, quasi-spiritual quality of the *Ursatz*. The *Ursatz* is so far removed from ordinary experience that analysis can never sufficiently express its true scope and significance.  

As a prototype, the *Ursatz* also contains in its form the most basic principles of tonal composition, and thus, also the mechanisms through which all transformations of the *Ursatz* take place. The *Urlinie* encapsulates the simple model of the dissonant passing tone, which Schenker understands as the origin of all possible melodic motion; similarly, the bass arpeggiation, since it derives from the contrapuntal model of the leaping passing tone, encapsulates the origin of all harmonic content (Pastille 1990a, 81–2; Schenker 1979, §§4–19). When the *Urlinie* and bass arpeggiation are taken as a single contrapuntal model (Schenker 1979, 4), then, the combination of the melodic and harmonic passing tones produces a new independent verticality. This, in Schenker’s view, is the origin of all musical content, and all voice-leading transformations of the *Ursatz* ultimately follow these principles. Consider, for example, the linear progression: in this case, a dissonant passing tone (or several passing tones) between two consonant members of a triad may receive consonant support through a harmony that is itself subordinate to the governing

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7 Schenker did indeed believe that the *Ursatz* is removed from ordinary experience. Pastille (1990b, 36–37) points out that Schenker claimed for himself a type of elevated, spiritual vision—comparable to Goethe’s *Anschauung*—that enabled him to discover the *Urlinie*. Furthermore, Schenker insists that only geniuses have a sense of the background which is unavailable to the “masses” (1979, 3).
Stufe, but nevertheless appears to be an independent sonority capable of being prolonged, in turn, through another lower-order linear progression.

In the first chapter of *Free Composition*, Schenker identifies the form of the *Ursatz* as the origin of voice-leading transformations. The following quotations form a representative cross section of Schenker’s comments:

The combination of fundamental line and bass arpeggiation constitutes a *unity*. This unity alone makes it possible for voice-leading transformations to take place in the middleground and enables the forms of the fundamental structure to be transferred to individual harmonies. (1979, §3)

...all the foreground diminutions, including the apparent “keys” arising out of the voice-leading transformations, ultimately emanate from the diatony of the background. (1979, §4)

Furthermore, in the fundamental structure, the upper voice (the fundamental line) is the source of all the voice-leading transformations, a role that the upper voice in the cadences of customary harmonic theory never play. (1979, §28)

Yet we must remember that all growth (every continuation, direction, or improvement) finds its fulfillment only through the control of the fundamental structure and its transformations, through constant contact with background, middleground, and foreground. (1979, §29)

Schenker’s commentary concerning the *Ursatz* as the origin of voice-leading transformations, however, is not perfectly clear. One could read these passages in a way that interprets the *Ursatz* as an origin in an abstract sense only, i.e., as an initial “primordial” or simple state that provides the necessary raw material for voice-leading transformations to operate. Of course, voice-leading transformations by definition require some original content that can be elaborated, and the *Ursatz* could be considered an origin in this weaker, passive sense. Alternatively, the *Ursatz* could be an origin in the stronger, active sense of generation: one might interpret Schenker’s prose to mean that
the *Ursatz* actually produces the voice-leading transformations that elaborate it. In this case, the voice-leading transformations that Schenker describes in *Free Composition* could not exist in music that is not under the control of the *Ursatz*.

My discussion here of the similarity between the *Ursatz* and the Goethean prototype is merely summative. Pastille (1990a, b) provides far more detail and evidence to support these interpretations, and I do not repeat his arguments here. Furthermore, the points I have raised so far are well known: after all, the mainstay of Schenkerian theory is the idea that complex musical structures arise through the elaboration of simpler models. If the *Ursatz* is in some way analogous to a Goethean prototype, however, its purely abstract nature is crucial for understanding its relationship to musical surfaces and the role it plays within the epistemology of Schenkerian theory.

To understand the significance of this, consider first the opposite situation, i.e., one in which the *Ursatz* is not abstract but whose components are identical to real pitches at musical surfaces. In this case, the *Ursatz* would be no more than an empirical datum, and its relationship to musical surfaces would be one of component parts to a whole, i.e., the pitches of the *Ursatz* would participate in composing musical surfaces. With its separation from musical surfaces collapsed, the *Ursatz* then becomes simply a pre-analytical fact similar to identifying intervals or pitches: it becomes an observation rather than an abstract prototype that categorizes our knowledge of tonal structures.

If this were case, the *Ursatz* would not be a theoretical term with the capacity to explain tonal music, but merely a descriptive empirical generalization that exists in the.

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8 It is worth repeating that the relationship between the *Ursatz* and the *Urphänomen* is analogous and not literal. Schenker was certainly inspired by Goethe, but, as Nicholas Cook reminds us (2007, 46), we cannot therefore assume an unbroken continuity between these two authors.
musical surface itself.\textsuperscript{9} Truly theoretical terms must exist apart from the data that they explain (DeBellis 2010, 112–13), and they must, therefore, be abstract. If a theory lacks such abstract terms, it cannot rise above the level of observation, however advanced it may be, and it thereby loses explanatory significance. Mark DeBellis summarizes this with reference to Schenkerian theory:

Hence, we move on to the more advanced, or theoretical, stage of science when we have some explanatory construct, at a remove from the data, that explains patterns and regularities we see in the data by means of unifying facts at a deeper, theoretical level...But, to the extent that its constructs are observational, Schenkerianism remains at the level of empirical generalization. To this extent, Schenkerian theory would be analogous not so much to physics as to our ordinary talk of tables and chairs; not so much to cognitive science as to folk psychology. Even if the data of musical experience can be explained by reference to facts about linear progressions, passing motion, and so on, there is an important disanalogy between that explanation and the way “electron” plays a role in the explanation of everyday phenomena, because Schenkerian concepts are in the data. (DeBellis 2010, 118)

Mere observation cannot perform explanation since this would amount to a tautology. For example (see DeBellis 2010, 113), we do not explain the movement of a needle on a voltmeter by describing its motion; instead, we appeal to the activity of electrons,

\footnote{The standard distinction between explanation and description involves causality. Explanations provide the causes of things, while descriptions state what things are: “To explain the phenomena in the world of our experience, to answer the question ‘why?’ rather than only the question ‘what?’, is one of the foremost objectives of all rational inquiry; and especially, scientific research in its various branches strives to go beyond a mere description of its subject matter by providing an explanation of the phenomena it investigates” (Hempel and Oppenheim 1948, 135). Explanation also involves prediction since causality is assumed to be constant under the same conditions. In the next section of this chapter I will address explanation in relation to music theory. For more discussion of causality and explanation within the philosophy of science, see the following: Carnap 1966a, b, c; Hempel 1965; Salmon 1984. For extensive discussions of the relationship between scientific explanation and music theory, see the following: Babbitt 2003a, b; Brown 2005 (1–24), 2001/2002, 1997; Brown and Dempster 1990, 1989; DeBellis 2010. Brown and Dempster’s articles address the idea of scientific standards of explanation within music theory in the first significant way since Babbitt’s work dating from the 1960s. Brown and Dempster 1989 also provoked four responses in the same issue of the \textit{Journal of Music Theory}: Boretz 1989; Cook 1989b; Rahn 1989; Taruskin 1989. Brown and Dempster 1990 is a counter response.}
unobservable entities that are separate from the needle’s motion.\textsuperscript{10} Clearly, the observational or theoretical status of the \emph{Ursatz} has a profound impact on the meaning and significance of Schenkerian theory.

If, as I contend along with Pastille, the \emph{Ursatz} is in fact an abstract and theoretical term that does not relate to musical surfaces as parts to a whole, however, then it must in some way capture how musical surfaces behave. As we have already seen, the \emph{Ursatz} encapsulates in its form the prototypical melodic and harmonic musical behaviour that characterizes tonality: it models the dissonant passing tone made consonant with harmonic support as the anchor of tonal composition. The \emph{Ursatz} uniquely represents tonal music, therefore, by providing an abstract model of behaviour that serves as an axiomatic reference for understanding why tonal music behaves in certain ways and not in others.\textsuperscript{11} As Brown points out, the \emph{Ursatz} reveals the features common to all tonal compositions and thus fulfills Schenker’s motto \textit{semper idem sed non eodem modo}:

\begin{itemize}
\item \textsuperscript{10} According to DeBellis, Schenkerian theory is not an explanatory theory with abstract terms. Instead, he believes that the terms of the theory are observational, or in the musical data (2010, 117). I do not address here the arguments that DeBellis provides for this point of view, even though I disagree with it; but a few comments about his position are nevertheless appropriate in this context. First, DeBellis in part bases his view on his assertion that Schenkerian theorists typically rely upon “aural intuition” to justify their analyses, whereas situations that need no such justification represent a “fraction” of analytical statements (2010, 117). Therefore, the terms of Schenkerian theory are primarily confirmed by an appeal to observation. In this matter, however, DeBellis both exaggerates the role of aural intuition and conflates music theory and analysis. If an analyst, for example, justifies a particular middleground event in a voice-leading sketch by appealing to a particular aural experience, this does not thereby indicate that middlegrounds are observational. In this case, the analyst is explaining how a particular musical event (the object of music analysis) conforms to or reflects a general theoretical concept; and he or she does not, so to speak, pull the theoretical terms down into the data by providing such aural justification. In fact, DeBellis may have the situation precisely backwards. The fact that an analyst might need to justify a middleground event could indicate that a middleground is, in fact, not in the musical data; for if it were, no justification would be necessary as qualified listeners could observe it with no difficulty. Furthermore, DeBellis (2010, 117–18) demonstrates a faulty understanding of diminution in Schenkerian theory. His comparison of the simple melodic embellishment found in sixteenth-century music theory to Schenkerian diminution is a serious misrepresentation of Schenker’s understanding of the concept as something that creates musical content across structural levels (Schenker 1979, §30; §46; §52; §§251–66). In some ways, then, DeBellis criticizes a straw-man construction of Schenkerian theory.
\item \textsuperscript{11} Brown, Dempster, and Headlam (1997) use Schenkerian theory to define the limit of tonal behaviour. In their view, a direct connection between the I and #IV (or bV) \emph{Stufen} cannot be tonal.
\end{itemize}
What features, then, are common to all tonal pieces? After some reflection, it is clear that these features cannot be thematic, rhythmic, or formal in nature because themes, rhythms, and forms are precisely the things that distinguish one piece or type of piece from another. Instead, it seems more reasonable to suppose that pieces by Mozart or Bach sound tonal because their constituent notes behave in some ways and not in others. This, of course, was precisely Schenker’s position… (Brown 1998, 100)

If its pitches were constituent members of musical surfaces, then the *Ursatz* could not have the overarching explanatory scope that it enjoys in Schenkerian theory. Because it comprises a particular pattern of musical behaviour instead, the *Ursatz* transcends individual pieces of music as an abstract and theoretical category that structures our understanding of tonality.

Understanding the *Ursatz* as a purely abstract and theoretical term is the first step toward being in the unique position of loosening its traditionally impenetrable hold of the rest of Schenkerian theory. This perspective eventually leads to the possibility of practicing Schenkerian theory with all its elements—including harmonic prolongation and structural levels—except the *Ursatz*. The next stage in the argument, then, develops and demonstrates the contention that the *Ursatz* expresses characteristic tonal behaviour and reveals how Schenker accomplishes this. Concomitantly, we may identify certain minimal qualities that place music within the explanatory purview of Schenkerian theory but, nevertheless, fail to give it the last layer of organization that would evoke the control of the *Ursatz*. I contend that Matthew Brown’s rational reformulation of Schenkerian theory provides the necessary framework for working out this second step in the argument.
Before turning to this in the next section, however, I note that the perspective I am adopting implies a specific interpretation of the relationship between the *Ursatz* and Schenker’s voice-leading transformations. Specifically, I contend that the relationship is the weaker of the two options described above: i.e., the *Ursatz* relates to voice-leading transformations as an underlying, maximally simple, and abstract entity—in Schenker’s words, *ein Zustand* (1935, §27)—that constitutes material susceptible to transformation.

In the epistemological structure of Schenker’s theory of tonality, the *Ursatz* conceptually precedes the voice-leading transformations, but it does not in fact produce them (the stronger sense of Schenker’s comments). Schenker seems to corroborate this interpretation when he dismisses the notion that the compositional process is a unidirectional movement from the simple *Ursatz* to the complex foreground:

> The concept of the fundamental structure by no means claims to provide specific information about the chronology of creation; it presents only a strictly logical precision [*Bestimmtheit*] in the relationship between simple tone-successions and more complex ones. Indeed, it shows this precision of relationship not only from the simple to the more complex, but also in reverse, from the complex to the simple. It is an inevitable principle that all complexity and diversity arise from a single simple element rooted in the consciousness or the intuition. (Even instruction in the beginning classes of music schools rests upon this principle). Thus, a simple element lies at the back of every foreground. The secret of balance in music ultimately lies in the constant awareness of the transformation levels and the motion from foreground to background or the reverse. This awareness accompanies the composer constantly; without it, every foreground would degenerate into chaos. (Schenker 1979, §29 [italics in original])

Schenker’s denial of a strict chronology beginning with the background, his assertion that the *Ursatz* represents a purely logical relationship between simple and complex, and his

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12 Oster’s translation of *Bestimmtheit* as “precision” is unidiomatic in English. Other senses of this word include “determination,” “definiteness,” or “firmness.” I believe that Schenker means that the *Ursatz* presents a logical determination of the relationship between simple and complex, or that it guarantees that a logical relationship between simple and complex exists. The meaning is the same: the relationship between the *Ursatz* and voice-leading transformations on the musical surface is logical, not concrete.
implication that musical foregrounds can exist without reference to the *Ursatz* (albeit to their detriment) all suggest that the *Ursatz* does not produce voice-leading transformations but, instead, expresses a particular ordering of them.\(^\text{13}\) We might say that the *Ursatz* provides the theoretical framework for a large-scale orientation, or teleology for the voice-leading transformations, which exist independently of the *Ursatz*. But again, Schenker’s position remains ambiguous in the end. I return to this topic in the final section of this chapter.

### 3.2. The Logical Structure of Schenkerian Theory

Schenker did not present his ideas with a strictly logical orientation. Indeed, in several instances he explicitly counters the notion that he developed his musical theory systematically. For example, Schenker claims that he discovered the *Urlinie* through an intuitive flash of insight as opposed to a systematic process of analysis and inductive generalization:

> I apprehended [erschaut] the *Urlinie*, I did not calculate [errechnet] it! (Schenker 1996, 19).

Pastille points out the strong anti-scientific tone of Schenker’s language in this passage:

> *Errechnen* means “to work out,” as one calculates a sum or formula. To contrast with this word, Schenker uses an uncommon verb—*erschauen*—composed of the prefix *er-*, which indicates the strenuous completion of the task denoted by the verb stem, and of *schauen*, which means “to behold.” In his very choice of words, therefore, Schenker is describing a sort of spiritual “vision”; he is claiming that he attained sight of the *Urlinie* through an effort of intuitive observation...not through a logical, almost mechanical decoding of the foreground. (Pastille 1990b, 37)

\(^\text{13}\) Schenker similarly problematizes the idea of a chronology or hierarchical boundaries between structural levels in Part 3, Chapter 2 of *Free Composition* (1979, §183).
Similarly, Schenker does not provide a systematic or logical explanation of his derivation of the major tonal system in *Harmony*. Instead, he invokes a mysterious ability of the number five to limit the significance of the pitches in the natural overtone series to those creating a major triad, i.e., the first five overtones. (Schenker 1954, §§11–19).

When I invoke the logical structure of Schenkerian theory, therefore, I am not speaking of Schenker’s own presentation of his ideas; rather, I refer to Matthew Brown’s (2005) rational reformulation of Schenkerian theory as, in part, a system of covering laws that define the behaviour of tonal music. After identifying and explaining these laws, Brown shows how they are uniquely expressed musically in the three forms of the *Ursatz* as the prototype of tonal composition, Schenker’s voice-leading transformations, and the idea of hierarchical structural levels.

Example 3.2.1 reproduces Brown’s (2005, 92) useful graphic summary of this recasting of Schenkerian theory:

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Example 3.2.1. The logical structure of Schenkerian theory (Brown 2005, 92)

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14 For more commentary on this issue, see the following: Brown 1986, 1–10; Brown 1998, 130; Clark 1999.
In this diagram of Schenkerian theory (the “theory of functional monotonality”), the Ursatz, structural levels, and voice-leading transformations are depicted as the highest terms, the abstract theoretical components of the explanatory system. These terms, in turn, summarize and generalize various laws of tonal voice leading and tonal harmony, which arise through a process of empirical generalization in the examination of individual events in tonal music. Before addressing Brown’s work in detail, we must take a moment to review briefly the philosophical framework within which he is working, and specifically, the idea of a covering law and its relationship to explanation.

In general, a law is a true statement about a particular object or behaviour: laws express general principles that govern classes of things or events to which individual instances conform. When combined with a set of conditions contextualizing individual instances of things or events, laws form an essential part of the process of scientific explanation. In other words, with a particular law (or a set of laws) and a particular set of circumstances or conditions, a deductive logical relationship emerges that explains the occurrence of a specific thing or event by offering reasons why that event or object exists or occurs in the way it does. Example 3.2.2 illustrates this logical process using Hempel and Oppenheim’s (1948, 138) model of scientific explanation, which they call the Deductive-Nomological model:

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15 The reader will recall the discussion above concerning the need for the explanatory terms of theory to transcend observations of empirical data (DeBellis 2010, 112–13).
Example 3.2.2. The Deductive-Nomological model of scientific explanation (Hempel and Oppenheim 1948, 138)

The combination of initial conditions and general laws (the explanans) explains a particular phenomenon (the explanandum) since the process of logical deduction from general principles provides a reason why a particular object or event exists as it does.\(^\text{16}\)

The laws in this model are called covering laws since as generalizations, i.e., statements about classes of objects or events, they “cover” individual instances within their purview.

Two different examples of this kind of explanation are worth citing. The first is Hempel and Oppenheim’s account of the behaviour of mercury inside a thermometer when it is submerged in hot water. In this case, the mercury drops sharply before rising:

How is this phenomenon to be explained? The increase in temperature affects at first only the glass tube of the thermometer; it expands and thus provides a larger space for the mercury inside, whose surface therefore drops. As soon as by heat conduction the rise in temperature reaches the mercury, however, the latter expands, and as its coefficient of expansion is considerably larger that that of glass, a rise of the mercury level results.— This account consists of statements of two kinds. Those of the first kind indicate certain conditions which are realized prior to, or at the same time as, the phenomenon to be explained; we shall refer to them briefly as antecedent conditions. In our illustration, the antecedent conditions include, among others, the fact that the thermometer consists of a glass tube which is partly filled with mercury, and that it is immersed into hot water. The statements of the second kind express certain general laws; in our case, these include the laws of the thermic expansion of mercury and of glass, and a statement about the small thermic conductivity of glass. The two sets of statements, if adequately and completely formulated, explain the phenomenon under consideration: They entail the consequence that the mercury will first drop, then rise. Thus, the event under discussion is explained by subsuming it under

\(^{16}\) The Latin terms *explanans* and *explanandum* translate as “the thing explaining” and “the thing to be explained” respectively.
general laws, i.e., by showing that it occurred in accordance with those laws, by virtue of the realization of certain specific antecedent conditions. (Hempel and Oppenheim 1948, 135–36)

The behaviour of the mercury is explained using general laws combined with a particular set of circumstances. Using deductive logic, one could also predict the behaviour of the mercury before performing the experiment. Indeed, when formulated correctly, the deductive-nomological model of explanation is predictive since its components, the general laws and antecedent conditions, adequately reflect the causes of the objects or events that they cover.

Matthew Brown provides an example of this type of scientific explanation in a musical context. As shown in example 3.2.3 and the accompanying commentary (Brown 2005, 8–9, fig. I.6), Brown invokes a general law of voice leading and particular musical circumstances to explain why a suspension resolves as it does:

**Example 3.2.3. Explanation of a suspension and resolution**
(Brown 2005, 8–9, fig. I.6)

<table>
<thead>
<tr>
<th>Initial Conditions</th>
<th>Covering Laws</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>-The seventh C–D on the down beat of m. 2 is dissonant</td>
<td>-Suspensions generally resolve down by step onto consonances</td>
<td>-Resolution on weak beat is a consonant sixth</td>
</tr>
<tr>
<td>-This dissonance is a suspension</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suppose, for example, that we want to explain why a particular suspension C resolves by step down to B (…). We might do so by invoking a simple law of tonal voice leading: namely, that suspensions normally resolve down by step onto
consonances (...). Given the initial conditions that the seventh C–D on the down beat of m. 2 is dissonant and that the dissonance is a suspension, this law-like generalization allows us to deduce that the dissonant tone C on the down beat of m. 2 will resolve down by step onto the consonant tone B in m. 2. This is a perfectly acceptable explanation. (Brown 2005, 8)

The resolution of C to B in the example is explained with a general voice-leading law concerning the stepwise, downward resolution of suspensions and the particular compositional circumstances that engage the behaviour that the law covers. The explanation also may predict the behaviour of similar compositional situations since it asserts a causal connection: the dissonant suspension C and the law of resolving suspensions together cause the consonant resolution pitch B.

From the examples above, it is evident that general laws in this kind of explanatory system should meet certain criteria in order to produce credible and adequate explanations. Brown and Dempster list four qualities of covering laws: “1) they must in some sense be true; 2) they must have empiric content; 3) they must be universalizable; and 4) they must be predictive” (1989, 69). Three of these criteria are fairly intuitive and have arisen at least implicitly in the synopsis of the deductive-nomological system given above. Clearly, laws must be at least provisionally true if they are to have any significance, and they must as far as possible be indefinite in scope—i.e., universal—in order to transcend particular objects and circumstances. We have already seen the connection between explanation and prediction in this framework as well: if a law cannot contribute to prediction then it does not adequately distinguish between classes of things or events and, therefore, cannot explain them.
The least intuitive criterion that Brown and Dempster list is the requirement of empirical content. Clearly, not every law need be empirical: for example, mathematical and logical truths are purely abstract, but they have law-like roles within their own contexts. Ultimately, the requirement of empirical content in the deductive-nomological model of explanation is a constraint of this system, and it reflects the origins of the model in logical positivism and empiricism, a philosophy of science that grounds knowledge in observable sensory experience.¹⁷ The central concern of empiricism, then, is defining meaning in such a way that its explanatory terms and laws maintain strong links to observable phenomena and, therefore, remain accessible to intersubjective corroboration and impartial testability.¹⁸ Unlike assertions that involve personal experience or intuition, clearly defined empirical content subjects general statements to external criteria that anyone may observe and, therefore, understand with more certainty than another’s experience. Similarly, empirical content ensures that anyone may test the validity of a statement without simply accepting another’s opinion. Empiricism still admits abstract theoretical terms that are necessary for explanation—as I discussed above in terms of the abstract nature of the *Ursatz*—but these theoretical terms still derive their meaning through their connection to empirical generalizations (see example 3.2.1).

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¹⁷ Philosophers of science draw a distinction between logical positivism and empiricism. Essentially, empiricism is a general philosophical perspective of which positivism is a particular kind. The distinction between positivism and empiricism has no bearing on the present discussion, so I leave it aside. For a summary of the relationship between empiricism and positivism and descriptions of each perspective, see DeBellis 2010, 112–13. For a detailed discussion of empiricism, its advantages, and challenges, see Hempel 1965.

¹⁸ The fact that theoretical terms in empiricism require a connection to observables does not consequently commit the empiricist to phenomenalism, a philosophical perspective that limits reality to directly observable sensory experience (DeBellis 2010, n27).
We should note at this point that a musical theory need not necessarily conform to
this scientific paradigm, which is simply one option among many for the possible forms a
musical theory could take. If one believes, however, that music theory ought to be
concerned with explaining as accurately as possible the phenomena it studies in a way
that satisfies norms of intersubjective corroboration, then the standards of scientific
explanation that empiricism endorses provide an attractive framework. Brown and
Dempster summarize the advantages of this approach in the following manner:

Why, even for a moment, should we consider imposing such an unfamiliar
image on the activities of music analysts and theorists? For us, any account of the
goals and methods of music theory should satisfy, at the very least, three basic
expectations. First, for better or worse, music theory has sought to contrast its
methods and goals with those of much traditional historical musicology. Music
theorists do not generally consider themselves historians or biographers...Second,
music theorists seem committed to the intersubjective corroboration of analytical
hypotheses; in some sense, music analyses/theories should present relations that
are audible, or at least confirmable by what suitably qualified listeners are capable
of hearing. What is to be avoided at all costs is a picture of music theory that
renders analyses as adventitious and untestable impositions on the musical facts.
Third, and most important, music theorists widely endorse the notion that a music
analysis should be “something more” than a mere descriptive catalog of the
elements and relationships evident in a piece or class of pieces. Thus, old
fashioned roman-numeral analysis and *Formenlehre* are frequently deemed as
inadequate. But this “something more” needs to be clarified.

We believe that, however unfamiliar, our scientific image of music theory
satisfies the following conditions. First, it exchanges a historical paradigm of
explanation for a scientific one. Second, it places a premium on the aural
testability and confirmation of theories and their related analyses. Third, it
accounts for the “something more” by insisting that explanations are grounded in
law-like generalizations. (Brown and Dempster 1990, 248–49)

The goals and values that Brown and Dempster attribute to a music theory that strives to
conform to a scientific, empirical paradigm are personal and do not constrain music-
theoretical activity as a whole. For the present purposes, however, it has been important
to review this approach since Brown reformulates Schenkerian theory along these lines.

This synopsis of the philosophical background informing Brown’s work with
Schenkerian theory is brief, and it necessarily omits the rich discussions and complex
nuances surrounding explanation and empiricism within the philosophy of science. In
fact, the picture of successful deductive reasoning from universally valid general laws
that I have presented is certainly an ideal, if not idealistic model. To begin, one must
wonder how certainty about the truth of laws can be both achieved and recognized.
Discovering laws that are universally true is a tricky, if not impossible endeavour. The
difficulty of achieving certainty in this regard, however, need not stop us from attempting
it while still remaining open to revising our theories based on new empirical evidence and
observations: practicality dictates that we must be content with empiric adequacy and
predictive power instead of truth, and law-like generalizations instead of universal laws.

Furthermore, music theorists generally work within existing theoretical frameworks, and
consequently their observations are theory-laden, which could call their empiric adequacy
into question: after all, approaching music through a particular theoretical lens tends to
control what kinds of events we observe in music and how we interpret them. Finally,
music-theoretical laws frequently are complex concepts with rich histories, and it is not

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19 Matthew Brown offers an excellent summary of the complicated nature of scientific explanation
in the introduction to his monograph (2005, 1–24). For more discussion of this topic and its relationship to
music theory, see the following: Brown and Dempster 1989, 1990; Brown 1997; DeBellis 2010.

20 The reader, therefore, should understand all subsequent references to laws as indicating law-like
generalizations.
always clear how they could be empirical or if they are anything more than analytical observations.²¹

For example, recall Brown’s explanation of the suspension in example 3.2.2 above and his covering law— “suspensions generally resolve down by step onto consonances.” Several complex concepts and circumstances are bound up in this brief covering law: the definitions of consonance and dissonance; the voice-leading concept of a suspension, which itself implies a specific rhythmic layout; the compositional and historical contexts of music that treats suspensions in this way; etc. Perhaps we could confirm each of these different aspects of Brown’s covering law to be empirical generalizations, but it is not immediately clear that this is possible; or, perhaps some of them, like the distinction between consonance and dissonance, are in fact theoretical terms that need not be verified empirically but derive their significance from the observable events they explain. At the very least, this covering law requires a repertoire-based qualification: it is only a law for a particular set of pieces that follow particular compositional procedures.

Despite these and other problems, music theories that aim to explain through empirical generalization can operate successfully as long as their practitioners understand the nature of their work as an open-ended process in a continuous state of refinement as new evidence comes to light and laws are confirmed and denied. Matthew Brown draws a

²¹ The difficulty of forming laws in music theory and the tension between theoretical concepts and empirical generalizations permeates Patrick McCreless’s (1989) review of Counterpoint (Schenker 2001). In this article, McCreless meticulously examines Schenker’s argumentation in Counterpoint, and he suggests in the end here that Schenker consciously used the absolutist language of natural laws to explain contrapuntal norms that he knew to be merely empirical generalizations.
parallel between an empirical, explanatory music theory and the image of Neurath’s
boat\textsuperscript{22} as a description of empirical research and its relationship to truth:

According to the story, empiricists resemble sailors at sea on a leaking boat. Instead of rebuilding their boat from the keel up in a dry dock, they fix the leaks while adrift on the open water. As each plank is replaced, the remaining timbers keep the craft afloat. But once one leak is patched another appears; bit by bit the boat becomes transformed, being carried along by nothing but the evolving conceptual scheme itself. In other words, empirical research is always open ended. Researchers do not begin with a blank slate, they do not have foolproof methods, and they do not reach definitive solutions. Instead, they plunge \textit{in medias res}. They must tentatively believe all of their inherited world view, but they must also realize that some unidentified portions are wrong. They must improve, clarify, and understand by trading off evidence with system: too much evidence creates a mere record of observations; too much system creates a myth without foundation. (Brown 1997, 337)

In this metaphor, the empiricist endeavour emerges more as a theory of evidence than a theory of truth: an empirical theory is rebuilt and transformed gradually according to new evidence and the way in which that evidence fits in with the rest of the “conceptual scheme” of the theory.

Since we cannot typically have the certainty of truth, then, Brown (2005, 18–24) identifies six criteria that scholars negotiate in order to maximize the usefulness, credibility, and significance of theories.\textsuperscript{23} These are accuracy, scope, and fruitfulness, which are evidential values; and consistency, simplicity, and coherence, which are systematic properties.\textsuperscript{24} We may also use these criteria to evaluate competing theories or to identify the strengths and weaknesses of a particular theory. For example, in

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\textsuperscript{23} Also see Kuhn 1977 for a detailed discussion of this issue.

\textsuperscript{24} Except for coherence and fruitfulness, the meanings of these criteria are clear. Brown (2005, 22) clarifies that the systematic value of coherence refers to potential connections to related disciplines. For example, we might prefer a music theory that is coherent with theories of music cognition. Thomas Kuhn defines fruitfulness as a theory’s potential ability to “disclose new phenomena or previously unnoted relationships among those already known” (1977, 322).
considering the relationship between Felix Salzer’s work in *Structural Hearing* (1952) and Schenkerian theory, Brown observes that Salzer sacrifices the accuracy of Schenker’s ideas in order to broaden their scope to music outside the canon that Schenker considers (Brown 2005, 23). In evaluating the success of Salzer’s framework, then, one might weigh these competing evidential values: one must decide whether the increased scope Salzer provides is worth the price of the accuracy lost thereby.\(^{25}\) However one resolves issues such as these is an important question, but one that exceeds the scope of the present context.\(^{26}\) What Brown offers here is a path through the myriad methodological problems involved in explanation, a way of thinking about empirical musical theories that recognizes their limitations but at the same time is able to progress in knowledge and understanding by continuously refining its generalizations and balancing them with systematic values.

With this philosophical background and general understanding of what Brown intends to do when he reformulates Schenkerian theory into an empirical and explanatory system, we may examine the various covering laws that Brown uncovers in the *Neue*

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\(^{25}\) Matthew Brown suggests that Salzer’s trade of accuracy for scope is unsuccessful. In this regard, he claims that most theorists prefer accuracy over scope or fruitfulness and, speaking of the systematic aspect of theories, consistency over simplicity or coherence (2005, 23). This is simply Brown’s opinion, and it may not represent the majority.

\(^{26}\) Kuhn maintains that the process of deciding between competing evidential and systematic values is ultimately subjective, that is, dependent upon an individual’s judgment and, therefore, susceptible to evaluation: “When scientists must choose between competing theories, two men fully committed to the same list of criteria for choice may nevertheless reach different conclusions. Perhaps they interpret simplicity differently or have different convictions about the range of fields within which the consistency criterion must be met. Or perhaps they agree about these matters but differ about the relative weights to be accorded to these or to other criteria when several are deployed together. With respect to divergences of this sort, no set of choice criteria yet proposed is of any use” (Kuhn 1977, 324). In the end, one may plausibly prefer Salzer’s or Burns’s theory over Schenker’s. The choice will depend on which evidential and systematic values one privileges. That being said, Brown (2005, 23–24) rightly suggests that decisions about these matters are usually guided by a general consensus in the field at any given time.
musikalischen Theorien und Phantasien series. Importantly, Brown grounds the covering laws empirically, i.e., in observable musical phenomena, to ensure that the adequacy of the laws may be tested with independent empirical observation. In fact, Brown (2005, 76) points out that Schenker—despite his claims to the contrary—arrived at these laws through inductive generalization based on empirical observations undertaken in Harmony and Counterpoint.

Example 3.2.4 reproduces Brown’s formulation of Schenker’s laws of tonal voice leading and the relationships between tonal contrapuntal voices. These laws are divided into three categories: the laws of melodic motion and closure (3.2.4a), relative motion and closure (3.2.4b), and vertical alignment (3.2.4c). Where applicable, Brown contrasts them with the traditional laws of strict counterpoint (as found, for example, in Fux 1973) to highlight Schenker’s theoretical sources and lineage. Finally, Brown distinguishes between global and local laws, and between main and subordinate laws: global laws govern whole structures, while local laws govern note-to-note motion; main laws

27 Necessary restrictions of scope do not permit an exhaustive examination of Brown’s extensive and richly complex work with Schenkerian theory. In my own work, I treat Brown’s perspective on Schenkerian theory as a primary source: I assume his rational reformulation of Schenkerian theory in order to build a new direction from it. Readers wishing the complete argumentation for his perspective should consult Brown 2005 (1–98 especially); a more condensed version of the argument appears in Brown 1998, 97–120.

28 This process of inductive generalization is sometimes called the “hypothetico-deductive method” of theory building. Brown describes the process in this way: “Although this model [the hypothetico-deductive method] may not give a completely adequate account of scientific confirmation, it does capture many aspects of how working scientists create and test new laws or theories. Scientists begin by observing the behaviour of some well-defined test sample. Next, they guess some general laws that seem to explain these observations. They then deduce some consequences that are implied if the laws or theories are correct. Finally, they see if the prediction is true. If it is, then scientists will keep on using their laws or theories; if, however, the predictions are wrong, then they must either modify the laws or theories or replace them entirely” (Brown 1998, 119–120). This is, of course, an idealized vision of the process of building and confirming theories, but it is at least a general framework with which to begin. In his monograph, Brown (2005, 12–18) discusses this process in more detail and addresses various objections and refinements to this means of verification.
describe normative behaviour, while subordinate laws describe significant exceptions to
that behaviour (Brown 2005, 29).

Example 3.2.4. Schenker’s laws of tonal voice leading as per Brown 2005

a) Laws of melodic motion and closure (Brown 2005, 45, fig. 1.12)

<table>
<thead>
<tr>
<th>Fux’s Laws of Strict Counterpoint</th>
<th>Revised Laws of Tonality</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the <em>cantus firmus</em> is perfectly closed, then it begins on $\hat{1}$ and ends $2\rightarrow 1$.</td>
<td>GM If a melody is perfectly closed, then it begins on $\hat{8}$, $\hat{5}$, or $\hat{3}$, and ends $2\rightarrow 1$.</td>
</tr>
<tr>
<td>If a <em>cantus firmus</em> moves from one note to another, then successive notes are usually a whole- or a half-step apart and never repeat the same note.</td>
<td>LM If a melody moves from one note to another, then successive notes are usually a step apart.</td>
</tr>
<tr>
<td>If leaps do occur, then they are never larger than an octave and never encompass diminished/augmented intervals or the interval of a seventh.</td>
<td>LS If leaps occur, then they do so when the melody shifts from one harmonic tone to another or from one contrapuntal voice to another.</td>
</tr>
<tr>
<td>If leaps occur, then they seldom appear successively in the same direction and are normally approached/departed by step in the opposite direction.</td>
<td>LS</td>
</tr>
</tbody>
</table>

(G=global, L=local, M=main, S=subordinate)

b) Laws of relative motion and closure (Brown 2005, 50, fig. 1.16)

| If a counterpoint is perfectly closed, then it begins on $\hat{8}$ or $\hat{5}$ and ends $7\rightarrow 1$. | GM If a texture is perfectly closed, then the melody begins on $\hat{8}$, $\hat{5}$, or $\hat{3}$ and ends $2\rightarrow 1$, the alto ends $7\rightarrow 1$, the tenor ends $5\rightarrow 4\rightarrow 3$, and the bass leaps $5\rightarrow 1$. |
| If a counterpoint moves from one note to another, then it mainly moves in contrary motion with the *cantus firmus*. | LM If the contrapuntal lines move from one note to another, then they mainly move in contrary motion or in parallel thirds or sixths. |
| If a counterpoint and the *cantus firmus* move in the same direction then parallel perfect octaves and fifths do not occur between successive notes. | LS If two essential lines move in the same direction, then parallel perfect octaves and fifths do not occur between successive harmonic tones. |
LS If parallel perfect octaves and fifths occur, then they arise from doubling/figuration or from combinations of harmonic and non-harmonic tones.

\( (G=\text{global}, L=\text{local}, M=\text{main}, S=\text{subordinate}) \)

c) Laws of vertical alignment (Brown 2005, 51, fig. 1.17)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Law Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a counterpoint is added above or below a <em>cantus firmus</em>, then it always begins/ends on a perfect consonance.</td>
<td>GM</td>
<td>If contrapuntal lines are added to a melody, then they normally begin and end on members of the tonic triad.</td>
</tr>
<tr>
<td>If the counterpoint moves from one note to another, then each note is normally consonant with the <em>cantus firmus</em>.</td>
<td>LM</td>
<td>If the contrapuntal lines move from one note to another, then each verticality is basically triadic.</td>
</tr>
<tr>
<td>If dissonances occur, then they move by step to and/or from consonances.</td>
<td>LS</td>
<td>If non-harmonic tones occur, then they move by step between harmonic tones or by leap between contrapuntal lines.</td>
</tr>
</tbody>
</table>

\( (G=\text{global}, L=\text{local}, M=\text{main}, S=\text{subordinate}) \)

Without explaining their derivation, we may note these laws share one important feature: Brown formulates these laws of tonal voice leading by recognizing how Schenker transforms strict counterpoint through the power of *Stufen*. As soon as we posit that *Stufen* operate in conjunction with melodies, then the local note-to-note behaviour of melodies can change dramatically through their influence. For example, consider the local-subordinate laws of melodic motion and closure and vertical alignment: “If leaps occur, then they do so when the melody shifts from one harmonic tone to another or from one contrapuntal voice to another” (example 3.2.4a); “If non-harmonic tones occur, then they move by step between harmonic tones or by leap between contrapuntal lines” (example 3.2.4c). With their invocation of harmonic tones, these laws imply the
influence of *Stufen* underneath melodic activity, whereas their counterpart laws from strict counterpoint do not: the latter only consider intervals.

To provide a concrete example, the influence of *Stufen* as expressed in these laws permits the concept of compound melody, and, therefore, the free melodic fluency that characterizes tonal composition. Consider David Beach’s (2005, 47) analysis of the Gigue from J. S. Bach’s second partita for solo violin, BWV 1004, reproduced in example 3.2.5 below (only the opening measures of the original analysis are shown):

**Example 3.2.5. BWV 1004 opening measures (Beach 2005, 47)**

![Example of BWV 1004 opening measures](image)

In the sketch, Beach parses the violin’s single melodic line into two contrapuntal voices expressing the chord progression i–V₆–i in the key of D minor. This sort of long-range, floridly melodic voice leading is foreign to strict counterpoint at the local note-to-note level, and Beach’s interpretation assumes that *Stufen* control this long-range voice leading: the dominant *Stufe* beginning on the downbeat of m. 2 allows the mental retention of C♯₄ as the lowest contrapuntal/harmonic voice for the first six eighth-notes of the measure; and the tonic *Stufe* governing the music from the third beat of m. 2 to the downbeat of m. 3 permits D₄ to appear at some distance removed from C♯₄, the
resolution of which is this same D4. Furthermore, the long-range stepwise motion connecting D5–E5–F5 in the upper voice and D4–C♯4–D4 in the lower voice between mm. 1–3 illustrates the activity of every local-main law in example 3.2.4. Each of the laws of tonal voice leading reflects the influence of Stufen.

Brown also formulates Schenker’s ideas concerning tonal harmonic progression into covering laws, and he contrasts these with “traditional explanations of functional harmony” (2005, 57).²⁹ Example 3.2.6 reproduces the laws of tonal harmonic progression according to their division into three categories: the laws of harmonic classification (3.2.6a), harmonic progression (3.2.6b), and chromatic generation (3.2.6c).³⁰

**Example 3.2.6. Schenker’s laws of tonal harmonic progression as per Brown 2005**

a) Laws of harmonic classification (Brown 2005, 59, fig. 1.24)

<table>
<thead>
<tr>
<th>Traditional Laws of Harmony</th>
<th>Revised Laws of Tonal Harmony</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a melody is harmonized, then it is mainly supported by major, minor,</td>
<td>LM</td>
</tr>
<tr>
<td>diminished, or augmented triads, and seventh chords on seven degrees.</td>
<td>If a melody is harmonized, then it is mainly supported by major, minor,</td>
</tr>
<tr>
<td></td>
<td>diminished triads on seven degrees.</td>
</tr>
<tr>
<td>If these triads appear in succession, then these seven degrees serve</td>
<td>LM</td>
</tr>
<tr>
<td>one of three functions—tonic (T), subdominant (S), or dominant (D)</td>
<td>If these triads appear in succession, then these seven degrees serve one</td>
</tr>
<tr>
<td>(functional equivalence).</td>
<td>of three functions—tonic (T), subdominant (S), or dominant (D) (functional equivalence).</td>
</tr>
<tr>
<td>If a triad appears, then it always has the root and the third, with any</td>
<td>LS</td>
</tr>
<tr>
<td>member in the bass (inversional equivalence).</td>
<td>If a triad appears, then it has the root and third, with only these</td>
</tr>
<tr>
<td>members in the bass.</td>
<td>members in the bass.</td>
</tr>
</tbody>
</table>

²⁹ Brown does not indicate how he identifies these traditional laws of harmony, but he relies on a generalized idea of what tonal theorists usually believe. As such, the reader cannot be certain whether the same kind of relationship exists here as we see between Schenker’s laws of tonal voice leading and strict counterpoint: in the case of the laws of tonal voice leading, Schenker engages with and transforms a tradition that precedes him; in the case of the laws of tonal harmony, it is unclear whether Brown believes that Schenker transformed existing laws or derived his own.

³⁰ The subheading “(G=global, L=local, M=main, S=subordinate)” does not appear in Brown 2005 underneath the laws of harmonic progression and chromatic generation (figures 3.2.6 b and c). I have added it here to maintain consistency.
If the triad doubles notes, then it normally doubles the root, then the fifth, then the third, but not 7.

If non-harmonic tones appear, then they arise from seventh chords or motion between triads.

If non-harmonic tones appear, then they arise from motion between harmonic tones or contrapuntal voices.

(G=global, L=local, M=main, S=subordinate)

b) Laws of harmonic progression (Brown 2005, 61, fig. 1.26)

Traditional Laws of Harmony

If triads appear in succession, then they are normally arranged as T-S-D-T.

Revised Laws of Tonal Harmony

GM If a tonal progression is maximally closed, then it ends by moving from V to I.

LS If another essential harmony occurs, then it does so from motion between I and V.

(G=global, L=local, M=main, S=subordinate)

c) Laws of chromatic generation (Brown 2005, 62, fig. 1.27)

Traditional Laws of Harmony

If a melody is harmonized by triads, then these triads are mainly diatonic.

If chromaticisms occur, then they substitute for or elaborate diatonic triads.

Revised Laws of Tonal Harmony

LM If a melody is harmonized by triads, then these triads are mainly diatonic.

LS If chromaticisms occur, then they arise from mixture or tonicization.

LS If harmonies appear on #IV/♭V, then they are always indirectly related to I.

(G=global, L=local, M=main, S=subordinate)

Just as the laws of tonal voice leading reflect the influence of Stufen, Brown’s laws of tonal harmonic progression incorporate the contrapuntal dimension. The clearest examples of this are the reformulations of functional and inversional equivalence (see the
second and third traditional laws of harmony in example 3.2.6a). Opposing inversionsal equivalence, Schenker restricted the number of consonant arrangements of a triad to two, i.e., root position and first inversion: since, contrapuntally speaking, the perfect fourth above the bass is dissonant, the second inversion of a triad cannot be an essential harmony (Brown 1998, 106). Brown does not list a counterpart to the law of functional equivalence since Schenker denied that Stufen fall into three functional categories: instead, Schenker explains the appearance of particular Stufen in particular locations within a phrase or harmonic progression by appealing to the exigencies of voice leading.

For example, consider Schenker’s illustrations in *Free Composition* (1979, fig. 15.2) of different middleground structures, reproduced below in example 3.2.7. Here, Schenker illustrates the different contrapuntal origins of two predominant harmonies, II and IV/7: in the first example of figure 15.2c, Schenker’s slur connecting the E5 between the I and IV/7 Stufen indicates that the predominant harmony arises melodically from the preceding tonic, and that the suspension of the E5 between the two Stufen accounts for the occurrence of IV/7 at this point; in 15.2d, however, the predominant II-Stufe arises melodically from the following V-Stufe, as Schenker indicates with the slur connecting the D5 held in common between them.

**Example 3.2.7. Origins of predominant Stufen (Schenker 1979, fig. 15.2)**
Furthermore, the interlocking slurs in the bass voices of these middleground examples indicate that Schenker understands the II and IV *Stufen* as the products of contrapuntal steps of a second: in figure 15.2c this contrapuntal step occurs between IV and V, while in figure 15.2d it occurs between I and II (Schenker 1979, §56). Therefore, even though IV and II both traditionally act as predominant harmonies, Schenker’s account distinguishes them by providing contrapuntal bases for their appearance.

At the surface, Brown’s general covering laws of voice leading and harmonic progression do not seem to have a tangible relationship to Schenkerian theory, which is not expressed as lists of laws. In each of these laws, however, we can identify what is perhaps the foundation of Schenker’s conception of musical structure, i.e., the idea that in tonal composition harmony and counterpoint are inseparably intertwined and work together to accomplish the process of composing-out. Indeed, Brown’s laws reflect deeply this relationship between the horizontal and vertical dimensions of music. To this end, we can identify the laws of voice leading and harmonic progression at the core of the three conceptual foundations of Schenker’s mature theory as expressed in *Free Composition*: the *Ursatz*, structural levels, and voice-leading transformations, the agents of composing-out in the horizontal dimension. To reiterate, the difference between Brown’s lists of covering laws and Schenker’s *Neue musikalische Theorien und Phantasien* series and how they evolved. As she shows, Schenker’s initial plans involved a seventh section of *Counterpoint*, Book 2, called “Freier Satz.” This section did not include the idea of *Ursatz* or structural levels, and it followed a radically different layout than what we see in *Free Composition*. Once Schenker worked out the ideas of the *Ursatz* and the *Urlinie* in the 1920s, he abandoned his earlier plan for the “Freier Satz” section of *Counterpoint*, Book 2, in favour of *Free Composition* as we know it today.

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31 Brown calls Schenker’s intertwining of harmonic progression and voice leading the “Heinrich Maneuver” (2005, 41).
32 Indeed, Schenker systematically organizes the contents of *Free Composition* according to these categories. Of interest here is Hedi Siegel’s (1999) account of Schenker’s plans for the *Neue musikalische Theorien und Phantasien* series and how they evolved. As she shows, Schenker’s initial plans involved a seventh section of *Counterpoint*, Book 2, called “Freier Satz.” This section did not include the idea of *Ursatz* or structural levels, and it followed a radically different layout than what we see in *Free Composition*. Once Schenker worked out the ideas of the *Ursatz* and the *Urlinie* in the 1920s, he abandoned his earlier plan for the “Freier Satz” section of *Counterpoint*, Book 2, in favour of *Free Composition* as we know it today.
Phantasien is one of expression, not of substance. I examine below how Brown’s laws relate to these three concepts of Schenkerian theory.

Beginning with the highest term of the theory, Brown demonstrates that the Ursatz, in each of its three forms, is in fact an “optimally compact” (2005, 73) musical summary of the main laws of voice leading and tonal harmonic progression: the structure of the Ursatz musically expresses the content of the global and local main laws. As such, it is a prototypical encapsulation of the tonal contrapuntal and harmonic behaviour that these laws codify: the Ursatz is the prototype of tonality. Consider Schenker’s three Ursätze, reproduced in example 3.2.8, and Brown’s explanation of how they summarize his main laws of voice leading and harmonic progression:

Example 3.2.8. Schenker’s three Ursätze (Schenker 1979, figs. 9–11)

a) Beginning on 3:

\[\begin{align*}
&\text{Example 3.2.8. Schenker’s three Ursätze (Schenker 1979, figs. 9–11)} \\
a) \text{Beginning on } 3: \\
b) \text{Beginning on } 5: \\
c) \text{Beginning on } 8:
\end{align*}\]

With respect to the laws of melodic motion and closure, it is clear that the upper line [of the Ursatz] follows the local law of moving by step and the global law of beginning on 8, 5, or 3 and ending 2–1. The upper line and bass arpeggiation likewise obey the main laws of relative motion: the three essential lines close 2–1,
7–1, and 5–1, whereas the outer voices essentially move in contrary or oblique motion with the upper line descending from the headtone to 1 and the bass arpeggiation ascending from I to V. Similarly, each prototype follows the main laws of vertical alignment by beginning and ending on members of the tonic Stufe. Schenker’s prototypes also conform to the main laws of functional harmony: each one contains three Stufen arranged to form the quintessential functional progression I–V–I. This progression is not only diatonic, but it also defines the tonic C in the most unambiguous manner possible. (Brown 2005, 74)

Brown’s explanation is clear: the structures and relationships that compose the Ursatz musically express the global- and local-main laws of tonal voice leading and harmonic progression as expressed in examples 3.2.4 and 3.2.6 above. To be sure, Schenker did not understand the Ursatz in these terms (as is clear from the preceding section of this chapter), just as he did not conceive of his musical theory as a set of general laws. Once again, however, we must remember that Brown reformulates the expression of Schenkerian theory without violating or altering Schenker’s core principles or ideas. In fact, Brown only strengthens Schenkerian theory by making its terms more easily accessible to independent inquiry: he replaces the spiritual insight that Schenker claims as the origin of the Ursatz idea with logical deduction and empirical generalization.

Just as the global- and local-main laws provide a rational context for the Ursatz, Brown’s local-subordinate laws account for Schenker’s voice-leading transformations. For example, we may consider the linear progression (Schenker 1979, §§113–24, §§203–229), as the musical expression of these local-subordinate laws of voice leading and harmonic progression in combination: “If leaps occur, then they do so when the melody shifts from one harmonic tone to another or from one contrapuntal voice to another” (example 3.2.4a); “If non-harmonic tones occur, then they move by step between harmonic tones or by leap between contrapuntal lines” (example 3.2.4c); “If
non-harmonic tones appear, then they arise from motion between harmonic tones or contrapuntal voices” (example 3.2.6a).

Finally, Brown’s laws also incorporate the idea of structural levels through the distinction between local and global laws, and main and subordinate laws: the global laws cover the activity of the background only, while the local laws operate recursively through every structural level. Similarly, the main laws apply to every structural level, while the subordinate laws seem particularly suited to the foreground and later middleground levels. Note that the system of empirical law-like generalizations that Brown constructs does not require these distinctions per se; they arise, instead, from Schenker’s concept of structural levels.

Before ending this section, let us return to considering the linear progression in order to demonstrate clearly the differences between the kinds of explanations that Brown’s laws afford and those that Schenker offers in Free Composition. This exercise illustrates the fundamental compatibility between Brown’s and Schenker’s respective frameworks; but it also highlights a crucial distinction that foreshadows the way in which Brown’s laws provide a way to loosen the Ursatz from the rest of Schenkerian theory.\footnote{I pick up this thread again in the next section of this chapter.}

As mentioned above, the linear progression can be considered the musical expression of two local-subordinate laws of melodic motion and closure and vertical alignment combined with a local-subordinate law of harmonic classification. Since a linear progression is a complex concept involving a stepwise melodic movement between two harmonic tones, it requires the prior conceptualization of a melodic leap between
harmonic tones (3.2.4a) that the linear progression fills in. To this local-subordinate law of melodic motion and closure we add another local-subordinate voice-leading law of vertical alignment (3.2.4c), which states that melodic non-harmonic tones move by step between harmonic tones. With these two laws, the upper voice of the linear progression is secured. Finally, the local-subordinate law from the laws of harmonic classification (3.2.6a) anchors the harmonic tones on the end points of the melodic motion within the Stufe that the linear progression composes-out. To illustrate how these covering laws operate in a system of explanation using logical deduction, consider Schenker’s example (1979, fig. 34a) of a first-order linear progression, reproduced in example 3.2.9, prolonging 2 of the Urlinie:

**Example 3.2.9. First-order linear progression (Schenker 1979, fig. 34a)**

![Example 3.2.9. First-order linear progression (Schenker 1979, fig. 34a)](image)

Given the antecedent conditions that the pitches D5 and B4 in the upper voice are a consonant fifth and third respectively above the lower voice G4, and that the C5 passing between them is a dissonant fourth above the bass, we may invoke in conjunction with these conditions the laws above to explain the movement D5–B4 above G4 as a linear progression composing-out the V-Stufe.\(^\text{34}\)

In contrast, let us examine Schenker’s explanation of the linear progression in *Free Composition*. Schenker refers to the linear progression in *Free Composition* for the

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\(^{34}\) Naturally, this explanation also assumes prior definitions of consonance and dissonance and stipulation that harmonic tones are always consonant with the bass.
first time in §5 in the context of describing the *Urlinie*. In §§1–4 preceding this reference, Schenker describes how artistic exigencies transformed the chord of nature (*Naturklang*) to produce the linear progression: first, the essentially vertical chord of nature is arpeggiated to form the upper and lower voices of the *Ursatz*; then the arpeggiation of the *Urlinie* is filled in with passing notes, which create the linear progression contained within the *Ursatz*. Schenker’s language, reproduced below along with the relevant figures in example 3.2.10 (Schenker 1979, figs. 2, 3, and 5), is characteristically deterministic and naturalistic:

**Example 3.2.10. Schenker’s Generation of the Linear Progression**

a) The Chord of Nature  
(Schenker 1979, fig. 2):

b) Arpeggiation of the Chord of Nature (Schenker 1979, fig. 3):

c) The Linear Progression of the *Urlinie*  
(Schenker 1979, fig. 5):

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35 Of course, the linear progression in the upper voice of the *Ursatz* (the *Urlinie*) is different than linear progressions in the middleground and foreground since the two voices of the *Ursatz* cannot be separated from each other by definition (Schenker 1979, §3): the passing notes in a linear progression at later levels need not be harmonized, and if they are, the harmonization does not usually exist at higher structural levels. Schenker himself makes this qualification at the outset of his discussion of the *Ursatz*: “This basic transformation of the chord of nature into an arpeggiation must not be confused with the voice-leading transformations of the fundamental structure which occur in the middleground” (1979, §1). Even though it may seem odd to refer to the *Ursatz* as a linear progression, Schenker speaks this way in *Free Composition* (1979, §5), and he grounds linear progressions of the middleground in the parallel structure of the *Ursatz* (1979, §§114–17).
In nature sound is a vertical phenomenon:

**Fig. 2**

In this form, however, it cannot be transferred to the human larynx; nor is such a transfer desirable, for the mere duplication of nature cannot be the object of human endeavor. Therefore art manifests the principle of the harmonic series in a special way, one which lets the chord of nature shine through. The overtone series, this vertical sound of nature, this chord in which all tones sound at once, is transformed into a succession, a horizontal arpeggiation, which has the added advantage of lying within the range of the human voice. Thus the harmonic series is condensed, abbreviated for the purposes of art.

...In the service of art, the arpeggiation throws off the restrictions of nature and claims the right to assert itself in either an upward or a downward direction. The following two forms represent the briefest and most direct ways for the harmonic series to be realized by human vocal organs:

**Fig. 3**

The upper voice <of a fundamental structure>, which is the fundamental line, utilizes the descending direction; the lower voice, which is the bass arpeggiation through the fifth, takes the ascending direction.

...After centuries of striving, when creative ears had finally learned to mold several voices successfully into a contrapuntal complex, it became possible to fill in the spaces in the arpeggiation in the upper voice of the fundamental structure with passing tones in a manner which did justice to both nature and art.

...In accordance with the arpeggiation from which it stems, the fundamental line exhibits the space of a third, fifth, or octave. These spaces are filled by passing tones [see fig. 5]. The space of a fundamental line must contain the linear progression of at least a third…(Schenker 1979, §§1–5)

Comparing these passages from *Free Composition* to the account of linear progression provided by Brown’s covering laws, the differences are stark and apparent.

Schenker speaks in terms of Nature, art, the capacity of “human vocal organs,” the

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Ursatz, a struggle to reconcile nature and art, etc.; but Brown formulates his thoughts in a relatively sterile and disengaged style using conditional sentences relating directly to observable musical procedures and avoiding metaphysical pronouncements. Even though their derivation and expression of the linear progression are different, Schenker and Brown nevertheless both speak of the same melodic passing motion in between two harmonic tones.

### 3.3. Reconciling Schenkerian Theory and Bach’s Modal Practice

Having considered the prototypical character of the Ursatz and the nomological apparatus that Brown reveals within Schenkerian theory, we may now explore the potential these perspectives hold for articulating a theoretical framework that permits a Schenkerian interpretation of Bach’s modal chorale preludes. Certainly, the quintessentially tonal identity of the Ursatz is the primary obstacle to a Schenkerian interpretation of Bach’s modal music; and as a result, the challenge is to identify a legitimate space within the theory where one may minimize the total structural control that the Ursatz usually commands, but at the same time also remain faithful to the essential principles of Schenkerian theory. I believe that this theoretical space exists in the reading of Schenkerian theory that this chapter has presented so far.

The interpretation of the Ursatz as a prototype provides the crucial first step for releasing its grip over the whole of Schenkerian theory. To summarize, if we follow Schenker’s understanding of the Ursatz as an abstract, theoretical prototype of tonality analogous to Goethe’s Urphänomen, then we must conclude that the Ursatz is not
actually present in musical surfaces. We encounter the Ursatz, either consciously or unconsciously, in perceiving musical surfaces; but these audible pitches do not constitute the tones of the Ursatz, which is purely a cognitive phenomenon, a mental category structuring our understanding of tonal music. Understanding the Ursatz in this way provides the abstract term required for an explanatory theory (as opposed to a report of observation) and conforms to Schenker’s presentation of it in *Free Composition*.

A significant consequence of this is the possibility of analyzing music without referring to the Ursatz. Since the Ursatz is not literally present in the pitches of musical surfaces, we do not risk misrepresenting or misconstruing the empirical “facts” of the music when we do not refer to it. In other words, an analysis that does not contain the Ursatz would not be literally incorrect in the same way as an analysis that objectively misidentifies intervals or triads. The Ursatz is in essence an abstract organization of musical facts: it is not embedded in them.

This point may seem trivial since much music behaves in a way that positively excludes the activity of the Ursatz. Nevertheless, this qualification is important for two reasons. First, it addresses a basic ontological question that determines whether we may proceed from this point in any meaningful way. Obviously, if the pitches of the Ursatz were literal constituents of musical surfaces, it be would impossible to omit reference to the Ursatz when analyzing music, such as Bach’s chorale preludes, that substantially evinces the kind of musical behaviour that normally falls within its purview. In other words, since the Ursatz is purely theoretical, we can (at least in the abstract) entertain the

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37 Matthew Brown (2005, 209–33) believes that the Ursatz, along with structural levels and recursive voice-leading transformations, models the cognitive activity required for expert functional monotonal composition.
possibility that music that hierarchically composes-out triads—as opposed to much modal
music, and post-tonal and non-Western repertoires—might not fall under the control of
the prototypical Ursatz. Pursuing this thought, we arrive at the second point: when we
understand the Ursatz as purely abstract and not observational, we may disconnect it
conceptually from Schenker’s voice-leading transformations, the agents of composing-
out. Since voice-leading transformations operate within the actual pitches that comprise
musical surfaces, they cannot relate to the Ursatz in more than an abstract, theoretical
way: voice-leading transformations do not compose the Ursatz, nor does the Ursatz
literally produce them.\footnote{Naturally, one might argue that Schenker’s voice-leading transformations are not real, but
imaginary theoretical constructions. I do not address this objection here simply because I am not making a
claim about the veracity of Schenker’s account of musical structure. In the context of Schenkerian theory,
voice-leading transformations operate in and through actual musical pitches.}

Instead, the Ursatz is ultimately a theoretical interpretation of
the overall pattern or ordering of events that voice-leading transformations create as the
music unfolds through time.\footnote{Korsyn 1988 discusses this idea of the Ursatz as the expression of how listeners apprehend a
temporal unity from a series of discrete musical moments.} Since concrete voice-leading transformations neither
produce nor spring from the abstract Ursatz, we may conceptually detach these two
elements of the theory.

To illustrate this point, consider the first few measures of David Beach’s (2008,
21) foreground analysis of the Sarabande from J. S. Bach’s Partita in B♭
major, BWV
825, reproduced in example 3.3.1 below.\footnote{Whereas I have reproduced Beach’s analysis of the entire first reprise of the Sarabande, I have
included only the first four measures of the score since my commentary is limited to these measures.}

In the opening measures of the analysis, we
see in the highest structural voice an initial arpeggiation to the Kopfton, F5 or 5, in m. 1
followed by a stepwise descent of a fifth, F5 to B♭
4 in mm. 1–4, prolonging 5. This
melodic activity is accompanied by a bass progression that prolongs B♭-major harmony through a lower-neighbour, B♭2–A2–B♭2.

Example 3.3.1. Foreground analysis of BWV 825 (Beach 2008, 21)

As melodic voice-leading transformations actively composing-out the tonic Stufe over these four measures, the initial arpeggiation and the stepwise descent are actual components of the musical surface; i.e., the pitches that compose these voice-leading transformations are real pitches of the music. On the other hand, the Kopfton is not an actual pitch of the music, but it is instantiated or represented by the F5 in m.1 of the score. To put this distinction another way, the analysis of F5 as 5 of the Urlinie is an abstract, analytical interpretation of a surface-level pitch that is not literally identical to 5 of the abstract Urlinie; while conversely, the analysis of the linear progression over mm. 1–4 from F5–B♭4 is an analytical interpretation of the relationship between actual pitches identical to those on the musical surface. We may make the same distinction between the
voice-leading transformation in the bass over these measures and the analysis of B♭₂ in m. 1 as the first pitch of the Baßbrechung portion of the Ursatz.⁴¹

I refer again (see note 6 of this chapter) here to Schenker’s explanation in The Masterwork in Music (1994, 105) of the theoretical relationship between the pitches of the Urlinie and the Stufen to actual notes of the foreground. Speaking of composition in general, Schenker articulates the interpretation I have offered above regarding Beach’s sketch:

The treble voice, naturally, passes through notes of the Urlinie, among others, and the bass passes through notes of the conceptual scale-degree succession [Grundtonreihe]; but treble and bass are always to be held conceptually distinct from the Urlinie and the scale-degree succession [Stufenfolge].

On the one hand, if the treble voice, in its composing-out explorations [Auskomponierungsstreifzüge], even passes through notes that belong to the Urlinie, such notes are certainly constituent parts of the voice-leading progressions; and if the course of the bass takes it through notes that coincide with the conceptual fundamentals, those notes as well remain constituent parts of the voice-leading progressions.

But, on the other hand, just as the underlying triad that is subjected to composing-out remains at the same time pure idea—the only one of Nature and the first one of art—the Urlinie notes and the scale-degree notes likewise remain at the same time pure idea, even if they crop up in the course of the treble and bass voices. (Schenker 1994, 105)

Schenker unambiguously identifies the pitches composing the Urlinie and the progression of Stufen, the components of the Ursatz, as “pure idea” represented through the coincidence of actual pitches constituting the foreground diminutions. The relationship

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⁴¹Another way to express the point I make in this paragraph is to consider the different origins of the elements that make up Beach’s graph. The pitches of the Ursatz are purely theoretical and are projected down upon the music from above, so to speak; while on the other hand, voice-leading transformations rise out of the pitches at the foreground that compose them.
between the components of the *Ursatz* and voice-leading transformations is not one of identity: these elements coincide but remain “conceptually distinct.”

Voice-leading transformations, whether in Beach’s or any other foreground graph, do not literally create the members of the *Ursatz*; but they merely represent them. As a result, they are not directly tied to the *Ursatz*, nor is the *Ursatz* dependent upon them.\footnote{Consider again in this regard (see example 3.1.2) the voice-leading transformation of substitution (or deletion) that may replace a member of the *Urlinie* with another pitch.} In fact, this conceptual distinction between actual voice-leading transformations and the virtual *Ursatz* is the theoretical proposition that confirms the *Ursatz* as a prototype capable of transcending the individual piece of music to categorize our knowledge of tonality in the abstract. It is the semantic content of Schenker’s motto: *semper idem sed non eodem modo*.\footnote{The notion that the *Ursatz* is purely abstract and does not exist within real musical surfaces is a common well-attested interpretation of Schenkerian theory. A particularly clear expression of this point of view can be found in Carl Schachter’s study “Structure as Foreground: ‘das Drama des Ursatzes’” (1999). In this essay, Schachter speaks of the abstract *Ursatz* as “embodied somehow in a foreground” (298), and his analyses explore the varying degrees of this embodiment. This is to say, any of pitches of the *Ursatz* may be represented in the foreground or be absent from it. Schachter’s analyses are based on the premise that the *Ursatz* is projected onto musical surfaces as an abstract theoretical interpretation of the foreground.} The abstract nature of the *Ursatz* argues strongly for the weaker sense (as I identified at the close of section 3.1) of its relationship to voice-leading transformations. While it conceptually precedes voice-leading transformations in the explanatory system of the theory, the *Ursatz* does not directly produce voice-leading transformations in the sense of generation. Again, Schenker implies this in *Free Composition* when he clarifies that the *Ursatz* does not require specific voice-leading transformations:

> A particular form of the fundamental structure by no means requires particular prolongations; if it did, all forms of the fundamental structure would have to lead to the same prolongational forms. Indeed, the choice of prolongations...
remains essentially free, provided that the indivisibility and connection of all relationships are assured [§183].

The rapport between the particular form of the fundamental structure and the later levels—ultimately also the foreground—determines the choice of prolongations more specifically. It is this rapport which forms the actual picture of the background, middleground, and foreground (§29). (Schenker 1979, §47)

Schenker’s invocation of the rapport, or contact (Fühlungnahme) between structural levels as determining the final form of a composition strongly implies that the Ursatz provides a teleology to the succession of foreground voice-leading transformations that are, nevertheless, independent.44 Furthermore, his reference to §29 of Free Composition implies that this rapport is bidirectional, occurring equally from background to foreground and from foreground to background (see the discussion of §29 of Free Composition in section 3.1 above).

If voice-leading transformations are indeed distinct from the Ursatz as my reading of Schenkerian theory argues, we may find a context within the bounds of the theory for examining music that behaves similarly to tonal music at the foreground and middleground but lacks the global tonal behaviour of which the Ursatz is the prototype; music that composes-out Stufen but stops short of ordering the succession of its voice-

44 Schacher’s “Structure as Foreground” essay also eloquently describes Schenker’s idea of the rapport between structural levels when he counters the notion that Schenkerian theory is based on the reduction of musical surfaces: “‘Ihr Bild,’ with its suppressed 3, calls into question the widespread belief (even among many Schenkerians) that Schenker’s approach was based on reduction….Although ‘progressive reduction’ is indeed often a valuable analytic strategy, it is not the only one. Many pieces and passages need a very different approach, as ‘Ihr Bild’ demonstrates. There is no D♭ to be ‘taken directly from the piece itself’ and placed into a foreground ‘reduction’; and with that crucial first step unavailable, the road to the background through reduction becomes blocked. What the analyst must do is to arrive at the intuition of some higher level—middleground or background—and to test that intuition against the totality of impressions made by the piece. Each higher level—from piece to foreground to the various layers of the middleground and to background—represents a horizon that clarifies and gives meaning to the level beneath it; but not every element of the higher level need be literally present in the lower one” (Schachter 1999, 302). This passage also echoes Schenker’s expression, as discussed above (see section 3.1), of the motion from background to foreground and from foreground to background as he dispels the idea of a particular chronology in the creation of musical structure (1979, §29). Schachter is disputing the notion that musical structure is the product of a top-down, unidirectional motion between structural levels.
leading transformations according to the model that the *Ursatz* expresses. In other words, voice-leading transformations can operate apart from tonality defined as a specific, ordered behaviour of composing-out. We might illustrate this relationship between the *Ursatz* and composing-out with a Venn diagram:

![Example 3.3.2. Composing-out, the *Ursatz*, and tonality](image)

In this diagram, the *Ursatz* and composing-out are shown as independent theoretical propositions whose intersection produces tonality, i.e., the musical state occurring when the *Ursatz* orders the composing-out of triads into a specific hierarchical pattern.

In proposing this relationship between the *Ursatz*, composing-out, and tonality, we ought to be able to give an account of each of these elements individually. So far, I have endorsed what might be called a behaviouralist, or procedural idea of tonality: a definition of tonality as a specific global musical behaviour. Furthermore, I have argued so far that this behaviour is expressed in the *Ursatz*, the abstract prototype of tonality.

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45 Schenker does not understand tonality procedurally as a musical state arising from a specific ordering and relationship between musical events. Instead, he believes that tonality is the product of a higher metaphysical state existing conceptually prior to any specific musical ordering. Schenker bases this position on a distinction between the “diatony” of the background and the “tonality” of the foreground that “emanates” [erflossen] from it (1979, §4). There exists an important distinction, then, between tonality understood as the source of specific musical processes or as the product of a specific musical processes. I suggest that, despite Schenker’s view, one may endorse the latter position without violating the essential principles of Schenkerian theory. Frequently, Schenker’s metaphysical positions bear little to no empirical consequences. For a general discussion of procedural explanations in music theory, see Brown 2005, 1–24.
What remains, however, is a clear indication of what the process of composing-out individually requires, and how it can operate outside of a tonal environment. Filling in this component of the picture presents a significant reward as well: if one is able to define necessary minimum criteria apart from tonality for composing-out to occur, these will be the attributes of music that is not tonal but still susceptible to a Schenkerian interpretation and Schenkerian analytical techniques, insofar as composing-out is the basis of Schenker’s understanding of musical structure.

The first necessary criterion for composing-out is a triadic musical environment, i.e., one founded upon the triad as a discrete unit, as opposed to the purely intervallic world of strict counterpoint. Without a triadic environment, we cannot engage the concept of the *Stufe*, an essential element in the process of composing-out. Clearly, a triadic musical environment does not presume tonality since it is a necessary, but not a sufficient condition for tonality. Tonality cannot exist without a triadic environment, but not all triadic music is tonal: a specific tonality-defining behaviour needs to be imposed upon triads for tonal music to exist. This is implicit in the Venn diagram of example 3.3.2, since the *Ursatz* expresses this global tonal behaviour.

By itself, however, a triadic environment does not guarantee the viability of Schenker’s idea of composing-out. Some other conditions or procedures must actively regulate musical behaviour such that it conforms to the voice-leading transformations that Schenker defines. I propose that the local-main and local-subordinate laws of voice-

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leading and harmonic progression that Brown has formulated from Schenkerian theory accurately define these conditions (see examples 3.2.4 and 3.2.6).

Even though the local-main and local-subordinate laws explain tonal compositional procedures, they do not necessarily imply tonality per se. Indeed, only when the global-main laws of voice-leading and harmonic progression are added into the picture do we have an unambiguously tonal musical environment. The global laws provide the overall structural ordering that tonality requires, while the local laws, both the main and subordinate, do not. This is implicit, in fact, in the relationship of these laws to the more familiar terms of Schenkerian theory as discussed above: the global laws find musical expression in the Ursatz as the prototype of tonality, whereas the local laws principally explain voice-leading transformations at later structural levels and are distinct from the global laws.

If we conceptually separate the global and local laws, therefore, we find a well-defined, explicitly Schenkerian context that justifies the operation of voice-leading transformations and composing-out outside of the tonal environment within which Schenker defines them. Again, this separation is appropriate given the abstract nature of the Ursatz and its purely theoretical interaction with real musical surfaces. Indeed, combining Pastille’s and Brown’s perspectives as I do here provides a legitimate means for extending Schenkerian theory just beyond its tonal borders: the idea of the Ursatz as an abstract prototype of tonality secures a theoretical framework for loosening the Ursatz from composing-out, and Brown’s rational reformulation of Schenkerian theory into a system of covering laws provides the details of how this can be accomplished without
deviating from Schenkerian principles. Indeed, invoking Brown’s laws ensures that this theoretical framework retains both Schenker’s idea of hierarchical composing-out and the specific procedures he defined that accomplish it. Ultimately, I have articulated a well-defined space within the theory that can accommodate non-tonal music that meets the minimum criteria I have identified, i.e., a triadic environment and adherence to Schenker’s local laws of voice-leading and harmonic progression. As I demonstrate through the analyses in the next chapter, Bach’s modal chorale preludes fall into this category.

Apart from any specific analyses, however, I have already demonstrated the mechanics of this framework in the contrast between Schenker’s treatment of the linear progression in *Free Composition* and the explanation that Brown’s covering laws provide (see examples 3.2.9 and 3.2.10). As I discuss in that context, Schenker defines the linear progression primarily through the *Ursatz*; but, the explanation with covering laws contains no appeal to the *Ursatz*, and none is necessary as the explanation is deductively valid as it is. The explanation that Brown’s covering laws provide depends solely upon the particular behaviour of musical events and the relationships that this behaviour

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47 I contrast my approach, therefore, with Burns’s since she proposes voice-leading transformations that both exceed those that Schenker defines and in some cases contradict the foundations of his theory (see example 2.2.6). Conversely, I preserve all of Schenker’s voice-leading transformations and add none to his list. I do not jeopardize the idea of hierarchical composing-out by severing Schenker’s theoretical proposition from the techniques that execute it.
establishes. Importantly, therefore, we do not need the global tonal ordering of the *Ursatz* to understand and justify composing-out when we operate within this powerful covering-law framework.

Many advantages arise from using the framework that Brown’s local covering laws provide in examining Bach’s modal compositional practice. I mention three here in order to illustrate the potential theoretical and analytical power of this approach. First, in certain cases the covering laws provide explanations for aspects of Bach’s modal musical language that resist a strictly modal interpretation. For example, consider this local-subordinate law of chromatic generation: “If chromaticisms occur, then they arise from mixture or tonicization” (see example 3.2.6c). This law provides an adequate account of chromaticism in Bach’s music without requiring an anachronistic appeal to *musica ficta* or other terms from traditional modal theory. It neutralizes the problem of a high degree of chromaticism within a modal framework, which is normally mostly diatonic. Second, the covering laws are specific enough to permit us to distinguish between Bach’s music that conforms to them and other non-tonal triadic music that does not, such as Renaissance polyphony. Finally, using the covering laws to explain Bach’s modal

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48 Even though Brown does not explicitly endorse a behaviouralist understanding of tonality as I do, I believe that the construction of his covering laws at least supports my position. Each of Brown’s laws is formulated as an “if-then” conditional statement that qualifies a particular behaviour. Each one describes relationships between notes at every level of structure that define tonality; indeed, even the global laws describe specific behaviours. Brown himself highlights this aspect of his laws when he observes that music sounds tonal because its notes “behave in certain ways and not in others” (1998, 100). I reiterate, however, that Brown does not explicitly endorse my behaviouralist idea of tonality. Even though Brown’s laws are certainly based on specific behaviours, they still leave room for the opposite position, i.e., what I believe to be Schenker’s position that tonality is a metaphysical concept that somehow exists apart from the behaviour of musical surfaces. The difference, of course, is one of origin: either the behaviour that Brown’s laws describe arises from an abstract state of tonality, or it creates the abstract state of tonality. I contend that both readings of Brown’s laws are possible.

49 The reader will recall that the problem of chromaticism in the interpretation of Bach’s modal compositional practice forms the basis of one of William Renwick’s (1997, 263) reservations concerning Lori Burns’s (1995) work (see chapter 1, section 1.1).
practice preserves the possibility of interpreting multiple structural levels in the music: the recursive application of voice-leading transformations is present in the local covering laws with the distinction between the main and subordinate laws, as discussed above.

Besides these analytical and theoretical advantages, the loss of the global-main laws provides new and fruitful possibilities for interpreting Bach’s modal compositional practice. Without the global laws, the music does not fall under the structural control of the *Ursatz*, and it can admit a broader possibility of melodic and harmonic arrangements at the background structural level as a result. For example, the four structural voices of a hypothetical piece may not conform to the global-main laws of melodic motion and closure (example 3.2.4a) and relative motion and closure (example 3.2.4b): the soprano voice may not begin on 8, 5, or 3 or end with 2–1; and the alto, tenor and bass voices may not end with 7–1, 5–4–3, and 5–1 respectively. Furthermore, we might encounter structural harmonic motions that do not conform to the tonal I–V–I progression described in the global-main law of harmonic progression (example 3.2.6b): instead, other *Stufen* might appear. The result is a degree of flexibility in the background structural level that tonal music cannot admit since its background is always occupied by the *Ursatz*.

Example 3.3.3 illustrates several possibilities for alternate backgrounds that could possibly arise in different modal compositional environments: 3.3.3a illustrates both a melodic and a harmonic deviation as it contains in the soprano voice ♭2, i.e., the semitone

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50 Since Schenker identifies the background level with the *Ursatz* in the first chapter of *Free Composition* (1979, 4), we have become accustomed to reading his prose under the assumption that the terms “background” and “*Ursatz*” are mutually interchangeable; and to a certain degree, they are. A closer look at this first chapter, however, reveals that a structural level is a different theoretical concept than the stuff that occupies it, and as a result, the background may contain something other than the *Ursatz*. I return to this point in more detail in the next chapter.
above 1, which is harmonized by the vii-\textit{Stufe} in the bass; 3.3.3b repeats these features but increases the harmonic irregularity by harmonizing 3 with VI; and finally, 3.3.3c shows an unremarkable soprano voice but an atypical minor dominant providing harmonic support for 2. Furthermore, I have constructed these backgrounds such that their deviations from the Schenkerian norm reflect the features of diatonic modal scales. Examples 3.3.3a and b both presuppose a Phrygian framework with $\flat 2$ in the upper voice, while 3.3.3c suggests an Aeolian environment\textsuperscript{51} as the minor dominant reflects the diatonic $\flat 7$, i.e., the tone below 1, of these modes.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{example3.3.3}
\caption{Example 3.3.3. Alternate modal backgrounds}
\end{figure}

Though each contrapuntal voice in example 3.3.3c ostensibly conforms to the global-main laws of tonal voice-leading (see example 3.2.4a, b, and c), the setting as a whole does not comply with Schenker’s global laws of totality since the minor dominant \textit{Stufe} deviates from the global-main law of harmonic progression (see example 3.2.6b).

Even though these hypothetical backgrounds are certainly odd from the typical Schenkerian perspective,\textsuperscript{52} none of them violates the local-main or local-subordinate laws of tonal voice leading and harmonic progression: the main melodic motion is stepwise

\begin{footnotesize}
\footnote{This background could also indicate a Dorian modal framework. I have chosen Aeolian here simply because the setting is at the traditional pitch level of the Aeolian mode.}
\footnote{In fact, each of the backgrounds in example 3.3.3 appears in the analyses in the next chapter.}
\end{footnotesize}
and there are no parallel perfect fifths or octaves between the voices (example 3.2.4); and each verticality is triadic, in root position, either major or minor, and diatonic (example 3.2.6).\textsuperscript{53} Even though they clearly lack the global tonal ordering to which Schenker confined his theory, nothing about the musical content of these alternative backgrounds is explicitly non-Schenkerian in principle. Indeed, Schenker’s concept of composing-out as the stepwise melodic motion between two harmonic tones of a single \textit{Stufe} is not disturbed by these alternative backgrounds.\textsuperscript{54} The only thing that differs from Schenker’s perspective is the interior harmonic and melodic content of the composing-out motion at this structural level. For instance, while both the bass progression $i$--$vii$--$i$ and the melodic motion 3--2--1 in example 3.3.3a clearly deviate from Schenker’s norm, the outer ends of the composing-out, 3 and 1 above the E-minor triad, conform to the definition above. In other words, composing-out is still operative through the power of the local-main and local-subordinate laws, but the manner in which it unfolds is distinct. Even the progression $VI$--$vii$--$i$ in example 3.3.3b conforms to Schenkerian standards of composing out if we understand it as a kind of an auxiliary progression in which the initial E-minor triad is suppressed (Schenker 1979, §§244–45).\textsuperscript{55}

\textsuperscript{53} Even though examples 3.3.3a and b appear to violate the single local-subordinate law of harmonic progression—“If another essential harmony occurs, then it does so from motion between $I$ and $V$” (example 3.2.6b)—this particular law is a special case. Among both the laws of tonal voice-leading and harmonic progression, the content of no other local-subordinate law depends upon the content of a global-main law as this one does: in order to be meaningful, the local-subordinate law in question must assume the structural tonic–dominant–tonic harmonic progression that the global-main law of harmonic progression describes. Without this global ordering, therefore, this local-subordinate law simply does not apply to this structural level. As the analyses and discussion in the next chapter demonstrate, however, the local-subordinate law of harmonic progression does indeed apply to later structural levels.

\textsuperscript{54} Naturally, composing-out is not limited to stepwise motion: composing-out can also occur by arpeggiation or harmonic skip. I simply invoke stepwise motion here to coincide with the illustrations in example 3.3.3.

\textsuperscript{55} Recall in this regard the interpretation of Renwick’s analyses as incomplete tonal structures in chapter 2, section 2.3.
Without the global-main laws and the pervasive influence of a prototype, we must also acknowledge the possibility of encountering in music such as Bach’s modal chorale preludes an incongruence in the specific techniques of composing-out between different structural levels. For example, one structural level may contain a typically tonal type of composing-out with an upper-voice linear progression above a harmonizing bass arpeggiation through the upper fifth, whereas an earlier or later structural level may exhibit an alternative pattern. Example 3.3.4 illustrates this with an early middleground level based on the Phrygian background in example 3.3.3b:

Example 3.3.4. Hypothetical Phrygian middleground

Here, a tonal composing-out of VI, C major, occurs in the context of prolonging 3 of the Phrygian soprano voice containing b2. The background structure, however, is not tonal in any sense. Obviously, this kind of incongruity is foreign to tonal composition, which shows a perfect coherence of composing-out across all structural levels: through the influence of the Ursatz as a prototype, tonal music is hierarchically unified in way that Bach’s modal compositional practice cannot achieve.56

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56 My acceptance of a possible (but not necessary) incongruity between structural levels is one of the significant differences between my perspective and Lori Burns’s. As discussed previously, Burns seeks a “modal organicism” that retains a connection between “foreground gestures (such as cadential progressions) and deeper-level harmonic structures” (1995, 16).
Even though the modal settings in example 3.3.3 are background structures, they do not operate as prototypes nor, consequently, stand in an analogous relationship to the *Ursatz*. In fact, these backgrounds cannot be construed as prototypes because of their plurality: the idea of a prototype requires a single and unique concept or structure that underlies any number of individuals of the same class. The settings in example 3.3.3 implicitly reveal two crucial points in this regard: first, in the differences in both the upper and lower voices between the Phrygian backgrounds and the Aeolian background, I show that pieces of music in different modes do not necessarily share a single background structure;\(^{57}\) and second, pieces even of the same mode may have distinct backgrounds, as I show through the two hypothetical Phrygian settings.\(^{58}\) Since there is no single structure that underlies all modal compositions, we cannot speak of a hypothetical modal prototype analogous to the *Ursatz*.\(^{59}\)

If, as I propose, neither the *Ursatz* nor another analogous concept controls the structure of Bach’s modal chorale preludes, then one may reasonably wonder what takes its place. The question comes down to this: how can we understand the alternative background structures of example 3.3.3? An authentically Schenkerian perspective of musical structure is hierarchical, and, therefore, some theoretical concept or musical state

\(^{57}\) Indeed, the \(\flat 2\) of the Phrygian settings positively excludes any other mode. At the same time, the minor v-*Stufe* in the Aeolian setting positively excludes the Phrygian mode, which has a diminished triad on the v-*Stufe*.

\(^{58}\) Even though I have shown more than one background only for the Phrygian mode, other modes may also evince different backgrounds. For example, one might easily image an Aeolian setting that uses the major VII-*Stufe*, instead of the minor v-*Stufe*, to harmonize \(2\) (see example 3.3.3c).

\(^{59}\) One might respond to this point by suggesting that perhaps we might retain the concept of a prototype for modal composition if we allow many different prototypes to exist simultaneously. This would essentially divide modal compositions into different classes both between different modes and within a single modal framework. This approach, however, distills the power of the theoretical prototype to such an extent that the concept becomes superfluous. Furthermore, one would still be unable to assert an analogy between modal and tonal prototypes since tonality has only one such structure.
must underlie the foreground. There must be some simple musical state in the background that may be successively elaborated, i.e., prolonged through composing-out, until the foreground is reached. I believe that we may find a structural alternative to the Ursatz and, consequently, also explain the structures in example 3.3.3 by examining the theoretical and analytical framework of Der Tonwille (Schenker 2004–2005). In the ten volumes of this periodical, Schenker expounds a tripartite view of musical structure that I call the Urlinie-Stufe-Stimmführung paradigm. In this framework, musical structure arises through the integration, or synthesis (Synthese) of these three forces instead of through the activity of a monolithic Ursatz.

In the introduction to his translation of Schenker’s analysis of Haydn’s E-flat major piano sonata, Hob. XVI: 52, Wayne Petty (1988) offers a concise summary of how Schenker understands the Urlinie-Stufe-Stimmführung paradigm and the synthesis of these forces. The Urlinie, as the stepwise unfolding of a triad, shapes the horizontal dimension of musical structure, while the Stufen provide the vertical dimension. Voice leading, Stimmführung, mediates between these dimensions and thereby effects the process of composing-out:

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60 These terms could be translated as “Fundamental Line-Scale Step-Voice leading.” I will continue to use Schenker’s German terminology, however, according to current conventions. Wayne Petty refers to this tripartite arrangement as the “Urlinie-Stufe-Stimmführung synthesis” (1988, 109). Siegel 1999 traces the theoretical lineage of two these concepts, Stufe and Stimmführung, in the early Freier Satz plan that Schenker abandoned for Free Composition. As Siegel shows, the concepts of Stufe and Stimmführung, which Schenker called “fundamental laws” (Urgesetze), alone formed the basis of Schenker’s plan for treating free composition. Furthermore, Siegel (1999, 14) suggests that Schenker developed the concept of the Urlinie as he was revising the draft of Freier Satz, which was completed in 1917. This could explain the radical reformulation of Freier Satz into Free Composition.

61 As Wayne Petty points out (1988, 106), the idea of synthesis as the integration of tonal forces is central to Schenker’s early theoretical perspective. For an detailed discussion of the philosophical origins and connotations of this term, see Korsyn 1988.

62 We might contrast the Urlinie-Stufe-Stimmführung paradigm of Schenker’s early perspective with the three core concepts, i.e., Ursatz, structural levels, and voice leading transformations (Ursatz-Schichten-Verandlungen), that organize his later explanation of musical structure in Free Composition.
Synthesis refers to...an integration of tonal forces that interact to shape the organic, lifelike qualities of the total composition.

The *Urlinie* is one of those tonal forces, but by no means the only one. In a concrete sense the *Urlinie* structures melody, motivic repetition, and provides a skeletal framework for diminution of all kinds. In a more abstract sense, as the melodic unfolding of a triad through the passing motion (the primary device of Art), the *Urlinie* assures that these melodic elements will serve that fundamental chord (the chord of Nature). Further, the *Urlinie* enables the melodic elements to be wholly integrated with the other forces in the work of art. These other forces are the scale degrees (*Stufen*), the abstract entities that control harmonic relationships and progressions, and voice leading (*Stimmführung*), which Schenker conceives as mediating between the horizontal conception of tonality given by the *Urlinie* and the vertical conception given by the scale degrees. This happens as follows: when the process of compositional elaboration, or composing-out (*Auskomponierung*), itself already evident in the *Urlinie*, is applied to the bass, the outer-voice setting (*Außensatz*) thus created acts as an implied two-voice counterpoint above the scale degrees, a setting that upholds the laws of strict counterpoint. What guides the selection of intervals in this outer-voice setting is the *Urlinie*, which enables Schenker to claim that the *Urlinie* makes possible “the most perfect synthesis”—that is, it not only enables the melodic elements to be integrated with the scale degrees and voice leading, but it enables these tonal forces themselves to be integrated with each other. (Petty 1988, 106–07)

Apart from the absence of the *Ursatz*, this description of the integration of musical dimensions through composing-out involved in the *Urlinie-Stufe-Stimmführung* paradigm is, in fact, not entirely distinct from Schenker’s mature position in *Free Composition*. The basis of the difference between Schenker’s earlier and later perspectives, however, is the nature of the *Urlinie*, which Schenker developed and refined in the time period separating *Der Tonwille* and *Free Composition*. While the essence of the theoretical concept remains the same, Schenker’s view of the *Urlinie* in *Der Tonwille* differs from his later perspective in two significant respects.

First, in *Der Tonwille* the *Urlinie* does not refer exclusively to the abstract, fundamental melodic motion in the background paired with a specific bass arpeggiation,
i.e., the *Urlinie* as an inseparable member of the *Ursatz* in *Free Composition*.\(^{63}\) Instead Schenker uses the term much more generally, and it includes later-level linear progressions and neighbour-note relationships that he would subsequently include in middleground levels.\(^{64}\) In other words, the *Urlinie* in Schenker’s early perspective had not yet developed into a global theoretical prototype or cohered into the single type of descending melodic motion that we find in the *Ursatz*: it is tied to local musical events in individual pieces. Furthermore, unlike its character in *Free Composition*, the *Urlinie* of *Der Tonwille* is a purely melodic phenomenon conceptually distinct from any consistent or prototypical harmonization.

For example, consider Schenker’s “graph of the *Urlinie*” of the *Allemande* from Handel’s Suite in G major (Schenker 2004, 146) reproduced as example 3.3.5 below. In this case, the *Urlinie* (the top voice assigned to scale degrees in the graph) clearly includes elements, such as the melodic ascent to $\dot{5}$ over mm. 1–5, that would belong in a late middleground level according to Schenker’s mature perspective. Furthermore, the analysis does not show the *Urlinie* as part of a conglomerate of melody and harmony. The *Urlinie* and its harmonization are still distinct elements in Schenker’s early perspective.

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\(^{63}\) In discussing Schenker’s early publications, it is necessary to distinguish the *Ursatz* of *Free Composition* from other contexts. Schenker uses the term *Ursatz* for the first time in the fifth issue of *Der Tonwille* while reflecting further on his analysis of J. S. Bach’s Little Prelude in D minor, BWV 926, (Schenker 2004, 180–81) in the “Miscellanea” section at the end of the issue (see the subsection titled “*Urlinie* and Voice-Leading” in Schenker 2004, 212–13). Here and throughout *Der Tonwille*, however, Schenker uses the term *Ursatz* to refer simply to a two-voice setting of an *Urlinie*, instead of the global prototype of *Free Composition*. William Pastille (1990a, 81) indicates that Schenker probably solidified the final form of the *Ursatz* concept by the first volume of *The Masterwork in Music* (Schenker 1994).

To be sure, the *Urlinie* still indicates a hierarchical, structural melodic motion—an “archetypical succession of tones” (Schenker 2004, 21)—just as it does in *Free Composition*, but its purview is broader in *Der Tonwille* in that it includes local-level musical events; and as a result, it shows a greater flexibility in its form and the harmonic support it receives. Indeed, the *Urlinie* of *Free Composition* is restricted to one form only, albeit with the possibility of beginning on 3, 5, or 8.\(^{65}\)

In addition to this difference of scope, Schenker also ascribes to the *Urlinie* greater structural control than it exerts as a component of the *Ursatz*. In *Free Composition* (Schenker 1979, §§1–3), the *Urlinie* and the *Baßbrechung*, respectively the prototypical horizontal/melodic and vertical/harmonic dimensions of tonal music, work as equal forces within the indivisible *Ursatz*: neither component precedes the other in priority. In *Der Tonwille*, however, Schenker understands the *Urlinie* (again, as a purely

\(^{65}\) Joseph Lubben (1993, 1994) suggests that the greater flexibility of the *Urlinie* in *Der Tonwille* constitutes an advantage over the narrower conception of Schenker’s later perspective. I would argue, however, that the *Urlinie* of *Der Tonwille* holds less explanatory power since it is tied to specific musical events. The *Urlinie* of *Free Composition* is a global and abstract construction that covers every instance of tonality; and it, therefore, clearly provides much more explanatory power and potential than its earlier formulation in *Der Tonwille*. 
melodic phenomenon and unconnected to any prototypical harmonization) to be the primary structural force, the agent of synthesis (Schenker 2004, 22) that leads the way by determining both the melodic and harmonic dimensions of music: as the fundamental structural melody, the *Urlinie* determines the kind of diminutions that are possible and, as a result, also the harmonization that it may receive.\(^{66}\) The *Urlinie* itself justifies the harmonies that accompany it in the background.

Schenker describes this structural priority in the two articles from *Der Tonwille* that address the *Urlinie* only: “The Urlinie: A Preliminary Remark” (*Die Urlinie: Eine Vorbemerkung*) from *Der Tonwille* 1 (Schenker 2004, 21–24), and “Yet Another Word on the Urlinie” (*Noch ein Wort zur Urlinie*) from *Der Tonwille* 2 (Schenker 2004, 53–54).\(^{67}\) The clearest expression,\(^{68}\) however, is in “Yet Another Word on the Urlinie,” and I quote from this article below:

> Just as the harmonic degrees [*Stufen* (passim)] fend off chords that contradict the tending of their arrangement towards tonality, so, too, does the *Urlinie* fend off diminutions (motives and ornaments) whose peaks or main tones do not agree with this archetypical succession of tones. Thus, one sees that where the *Urlinie* holds sway, the diminutions are fashioned in such a way that other diminutions with other peaks cannot be put in their place.

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\(^{66}\) This view of the *Urlinie* as the primary structural force relates interestingly to the tension in Schenker’s thinking in *Harmony* and *Counterpoint* concerning the roles of the horizontal and vertical dimensions of music in the creation of musical content (see chapter 1, section 1.2, n47). Here, the primacy of the *Urlinie* indicates that the horizontal line controls harmony at a deep level of structure.

\(^{67}\) Besides these two articles, we also find four other focused treatments of the *Urlinie* in Schenker’s publications. These are as follows: The “Urlinie and Voice-Leading” section of the “Miscellanea” from *Der Tonwille* 5 (Schenker 2004, 212–13); “Elucidations” from *Der Tonwille* issues 8/9 (Schenker 2005, 117–18) and 10, and volumes 1 and 2 of *The Masterwork in Music* (Schenker 1994, 112–14; Schenker 1996, 118–20); “Further Consideration of the Urlinie: I” from volume 1 of *The Masterwork in Music* (Schenker 1994, 104–11); and “Further Consideration of the Urlinie: II” from volume 2 of *The Masterwork in Music* (Schenker 1996, 1–22). Robert Morgan (2014, 118–35) offers a useful summary and comparison of each of these articles on the *Urlinie*.

\(^{68}\) The first article, “The Urlinie: A Preliminary Remark,” is quite abstract and contains less musical detail than the second article. It does, however, unambiguously describe the *Urlinie* as the primary creator of musical structure and the agent of synthesis that “bears in itself the seeds of all the forces that shape tonal life” (Schenker 2004, 21).
Elaboration [*Auskomponierung*] brings to fruition a bass line that, in view of the fact that the roots of the harmonic degrees operate in the depths of the mind, is just as much an upper voice as the soprano with respect to the behaviour of the line, its undulating play, and its consonances and passing [dissonances]. Thus, the setting of the outer voices [*Außensatz*] is to be understood as a counterpoint of two upper voices above the harmonic degrees, a two-voice setting the quality of which determines the worth of the composition. The Urlinie then leads to a selection of intervals in this contrapuntal setting (and in this selection alone lies the guarantee of the setting’s highest quality and most consummate synthesis), intervals that continue to bear the law of strict counterpoint.…

The fact that the harmonic degree and the selection of intervals come from the Urlinie and go into it constitutes the miracle of circularity.

Diminution relates to the Urlinie as flesh in the bloom of life relates to a man’s skeleton. Indeed, though the form and content of the flesh impress us directly, it is the secret of the skeleton that holds everything together.…

The Urlinie leads directly to synthesis of the whole. It is synthesis. Since it offers grounds for deciding upon harmonic degree and form in doubtful cases, it makes it possible, above all, to get proper insight into synthesis. (Schenker 2004, 53–54)\(^{69}\)

Schenker ascribes to the *Urlinie* total control over melodic diminutions, the selection of *Stufen*, and the process of composing-out active in the outer-voice counterpoint, or *Außensatz*. The *Urlinie* is the primary agent of musical synthesis: it is the force that gathers all other musical parameters under its influence.

With this understanding of the *Urlinie-Stufe-Stimmführung* paradigm, we may identify a significant correspondence between this early Schenkerian theoretical framework and the musical implications of a compositional environment that does not conform to the global laws of tonal voice leading and harmonic progression. In fact, the *Urlinie-Stufe-Stimmführung* paradigm clarifies and explains the possible behaviour I described above in only general terms (see example 3.3.3).

\(^{69}\) I have inserted the German term *Stufen* in the first sentence of this quotation. Every reference to “harmonic degree” in this passage corresponds to *Stufe* in the original German. The translator of this article, Robert Snarrenberg, is responsible for all of the other insertions.
First, since in this framework they are tied directly to musical surfaces, the 
Urlinien of non-tonal music such as Bach’s modal chorale preludes may include elements 
that fall outside of the tonal norm that Schenker identifies. For example, consider the 
ostensibly Phrygian background setting in example 3.3.3a. The Urline in this example 
may legitimately include \( b^2 \) if the musical surface genuinely evinces a structural melodic 
motion that incorporates this kind of descent. The definition of the Urline in the Urline-
Stufe-Stimmführung paradigm does not prohibit this at all. It only requires the step-wise 
unfolding of a triad—a property guaranteed by a descent to \( \hat{1} \) from \( \hat{8}, \hat{5}, \) or \( \hat{3} \)—and does 
not per se specify the melodic means by which the triad is unfolded, i.e., the internal 
pitches of the linear progression.\(^70\) In the case of example 3.3.3a, the Urline unfolds the 
E-minor triad; and while it is certainly odd from a tonal perspective, the \( b^2 \) filling in the 
space between \( \hat{3} \) and \( \hat{1} \) does not nullify this fact. Indeed, the odd \( b^2 \) member of this 
hypothetical Urline is only prohibited when we elevate the Urline to a global, 
prototypical status and join it to tonal harmonic and melodic ordering, i.e., the theoretical 

\(^70\)The proposition that \( b^2 \) could belong legitimately to an Urline appears to contradict Schenker’s 
presentation of his theory. Indeed, this possibility is certainly excluded in Free Composition where the 
Urline is inseparable from the Ursatz (Schenker 1979, §3). In Der Tonwille, however, I believe that there is 
latitude for including such unconventional elements within the passing notes between the triadic members 
of the Urline. Consider the “Elucidations” article (Schenker 2005, 117–18) that offers a theoretical 
rationale for the Urline. Here, Schenker, in the same manner as he does in Free Composition (1979, §§1– 
3), derives the Urline from a step-wise filling in of an arpeggiated triad. The Urline, therefore, inscribes a 
“tonal space” that is bounded by \( \hat{1} \) and either \( \hat{3}, \hat{5}, \) or \( \hat{8} \): “The Urline measures out the tonal space within 
the chord, and thereby articulates the chord for the first time, bringing it to consciousness. The Urline is 
the first passing-tone progression [erster Durchgang]. As such it constitutes the first melody, and at the 
same time provides the diatonic content [Diatonie]” (Schenker 2005, 117 [boldface in original]). A close 
reading of these passages reveals that Schenker never stipulates the precise contents of the space in 
between the pitches of the unfolded triad. His illustrations clearly demonstrate a tonal environment; but I 
find no reason why one ought necessarily to assume tonality as Schenker does. Indeed, if one reads the 
whole article without assuming a tonal framework and disregarding the illustrations, one cannot reasonably 
conclude that the author is speaking exclusively about tonality. A non-tonal environment may fill in an 
arpeggiated triad just as easily as a tonal one. In the end, the only necessary feature of the Urline in this 
perspective is that it unfolds a triad in a step-wise manner. The passing notes in between the triadic 
members are unspecified in the abstract: particular musical surfaces supply these details. A non-tonal piece, 
therefore, can plausibly create its own unique “diatonic content” by filling in, or composing-out the space 
bounded by the arpeggiated triad in a manner distinct from tonality.
framework of *Free Composition*. As it stands in the *Urlinie-Stufe-Stimmführung* paradigm, however, the form of the *Urlinie* depends upon the actual pitches on the musical surface. Therefore, whereas I referred previously to the soprano voice of this background setting, and the others of example 3.3.3, in general terms as a structural melodic motion, I have demonstrated now that each upper voice in example 3.3.3 may be properly called an *Urlinie* regardless of their unconventional components.71

Referring to the same setting, the *Urlinie-Stufe-Stimmführung* paradigm can also explain the anomalous vii-*Stufe* harmonizing b2. Since the *Urlinie* in this framework determines the selection of *Stufen*, as a member of the *Urlinie* b2 itself justifies the vii-*Stufe*. The individual pitches of the *Urlinie*, to put it another way, produce and motivate their own consonant harmonic support; and the vii-*Stufe* is one option that fulfills this role underneath b2.72 The constitution of the *Urlinie* itself, therefore, explains its own harmonization since it provides the cause of the *Stufen* that arise through the melodic unfolding of the triad.73

The result, then, is a framework that bypasses the need for a separate theory of harmonic logic, such as tonality: since the *Urlinie* itself generates the *Stufen* that

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71 I state as well in the context surrounding example 3.3.3 that the loss of the global laws implies the possibility of a structural melodic motion that does not begin with either 3, 5, or 8, or end with 5–1. Even though this is a general possibility, such a structural melodic motion could not properly be considered a Schenkerian *Urlinie* since it would not derive from an arpeggiated triad. I do not believe, therefore, that a piece that truly displays such an alternative structural melodic motion would be susceptible to a strictly Schenkerian theoretical and analytical investigation. Without an *Urlinie* at the very least, the notion of a hierarchical musical structure is untenable. Once more, this point differentiates my work from Burns's. In some cases, Burns permits a Mixolydian *Urlinie* to begin with 4 (1995, 60).

72 The bII-*Stufe* could also provide consonant support for b2. The v-*Stufe* is normally unavailable here, however, since it is a diminished triad in the Phrygian system.

73 The alternate modal background structures in example 3.3.3, therefore, truly consist of an *Urlinie* accompanied by a bass harmonization. In this sense, they resemble Schenker's graphs of the *Urlinie* from *Der Tonwille* (see example 3.3.5), but they represent an earlier structural level. I return in the next chapter to discuss more fully the components of these modal backgrounds.
harmonize it, no further explanation is needed for the appearance and order of the *Stufen.* Therefore, an *Urlinie* that produces a tonal unfolding of a triad will produce tonal *Stufen* in a specific functional order; but an *Urlinie* that instead fills the tonal space of a triad with modal contents will accordingly produce modal *Stufen* that follow an ordering that the *Urlinie* itself determines. The *Urlinie-Stufe-Stimmführung* paradigm frees harmonic progressions from the global ordering of functional tonality. This is yet another correspondence between the *Urlinie-Stufe-Stimmführung* paradigm and a musical environment that obeys only Schenker’s local laws of voice leading and harmonic progression. Without a global tonal ordering, harmonic progressions are left with no other guide than the melodic unfolding of the *Urlinie.*

**Conclusion**

This chapter has described a theoretical framework within which one may analyze Bach’s modal chorale preludes. Furthermore, I have provided a context within Schenkerian theory for accomplishing this task. Rather than altering the terms of the theory or opportunistically choosing some of its tenets but leaving others aside, I propose that the epistemological structure of Schenkerian theory contains concrete implications for analyzing the type of non-tonal repertoire that Bach’s modal chorale preludes typify.

The quintessentially tonal *Ursatz* is the main obstacle dividing Schenkerian theory and modal music. I believe that this barrier may be overcome, however, by understanding the nature of the *Ursatz* and its role within the structure of the theory. This chapter began, therefore, with the proposition that the *Ursatz* is an abstract, purely theoretical prototype.
of tonality analogous to the Goethean Urphänomen. Crucially, this perspective separates the Ursatz from musical surfaces and Schenker’s voice-leading transformations. Since the Ursatz is essentially an abstraction, it is not comprised of actual, audible pitches at the musical surface. Instead, these pitches represent the members of the Ursatz; or to rephrase, the Ursatz is simply a theoretical interpretation of concrete musical pitches. As a result, the Ursatz does not relate to musical surfaces in a generative way. It does not directly produce voice-leading transformations, which exist in and though actual musical pitches, but it interprets their behaviour and order within its tonality-defining rubric.

Conceptually separating the Ursatz from musical surfaces in this way is the essential first step toward practicing Schenkerian theory and analysis without appealing to it. If the pitches of the Ursatz are not constitutive members of musical surfaces, then we do not risk objective misinterpretation in analysis if we do not identify it. In other words, an analysis without the Ursatz does not err objectively as does an analysis that misidentifies intervals or triads. Additionally, the distinction between the Ursatz and musical surfaces implies in principle that we may legitimately identify the process of composing-out apart from tonality. Only after such a separation can we begin to justify a Schenkerian interpretation of Bach’s modal chorale preludes.

Having established the general possibility of separating the idea of composing-out from the Ursatz, I contend that Matthew Brown’s reformulation of Schenkerian theory into a system of differentiated global and local covering laws reveals a well-defined and thoroughly Schenkerian framework for achieving this. I propose that the necessary conditions required for composing-out are accurately provided by the various local-main
and local-subordinate laws of voice leading and harmonic progression that Brown has
distilled from the *Neue musikalische Theorien und Phantasien* series. In other words, we
may safely discard the global laws of voice leading and harmonic progression, of which
the *Ursatz* is the musical expression, without jeopardizing the viability of composing-out.
The language and epistemology of the covering-law model of Schenkerian theory provide
the necessary terminology, theoretical consistency, and specific mechanisms that
contextualize and substantiate the general claim that the *Ursatz* and composing-out are
contceptually separable within the bounds of Schenkerian theory.

A musical language that conforms only to Schenker’s local laws, then, does not
evince the prototypical global ordering that defines tonality; and as a result, it is not
cmprolled by the *Ursatz* or any analogous structure. In order to maintain, however, a
hierarchical conception of musical structure—and this is an absolute requirement of
Schenker’s idea of composing-out—we must identify another musical element that can
fill the background in lieu of the *Ursatz*. Following the theoretical framework that
Schenker expounds in *Der Tonwille*, I propose that the *Urlinie-Stufe-Stimmführung*
paradigm acts as the structural force shaping Bach’s modal compositional practice. In this
paradigm, the *Urlinie* is the primary structural agent guiding the course of both the
melodic diminutions and the selection of the *Stufen* that accompany it. Furthermore, since
the *Urlinie* at this stage in Schenker’s thinking is tied to musical surfaces, it can
accommodate the unique melodic and harmonic framework that we find in the
background structures of Bach’s modal chorale preludes.
In the end, the *Urlinie*, freed from the confines of the *Ursatz of Free Composition*, fulfills the highest structural role in Bach’s modal compositional practice in the chorale preludes for organ. The practical consequence of this, therefore, is that the structure of the chorale melody itself determines the structure of the music insofar as it provides the *Urlinie*: the particular constituents of the *Urlinie* that the chorale melody creates determine both the melodic diminutions and *Stufen* that may arise during the course of its own unfolding in the compositional process. A unique and noteworthy consequence of this is the fact that the pitches of the chorale melody in Bach’s settings acquire different structural status according to how they relate to the *Urlinie*, i.e., whether they are members of the *Urlinie* or parts of lower-level melodic diminutions. This is a crucial distinction between Bach’s chorale settings and other non-tonal polyphonic settings that treat the chorale melody as a *cantus firmus*. The idea of the *cantus firmus* from strict counterpoint implies that the pitches of the *cantus firmus* have equal structural import both among themselves and in relationship to the other voices of a polyphonic setting.74 Within the framework I am proposing, therefore, we cannot properly call the chorale melodies in Bach’s organ preludes *cantus firmi*. This is yet another manifestation of the powerful ability that the Schenkerian perspective has to distinguish between Bach’s modal compositional practice and earlier modal composition.75

In concluding this chapter, I acknowledge that in certain elements I have departed from the theoretical thinking and positions that have directly informed my own. My view

74 In *Counterpoint* (2001, 1:19), Schenker recommends that one avoid in the construction of *cantus firmi* any patterns that might establish a “unit” centred around one particular tone. This would create the impression of a hierarchy among the tones of the *cantus firmus*.

75 In this regard, the reader will recall that Schenker (2001, 1:33–9) criticizes Bach’s simple SATB harmonization of *Gelobet seist du Jesu Christ* on the grounds that he treats the chorale melody like a *cantus firmus* and not like a true melody (see chapter 1, section 1.2).
of the relationship between the *Ursatz* and voice-leading transformations, for example, differs from Matthew Brown’s: Brown believes that the *Ursatz* generates musical surfaces in the sense that it alone justifies and motivates the voice-leading transformations that produce all structural levels later than the background (Brown 2004/2005; 2005, 66–98).\(^\text{76}\) His understanding of Schenkerian theory is very much an *Ursatz*-down approach, so to speak. I have argued in this chapter, however, that the relationship between the *Ursatz* and voice-leading transformations is weaker, and these two elements may be conceptually separated: we may identify and describe concrete voice-leading transformations without necessarily appealing to the abstract *Ursatz*. I do not suggest that no contact exists between these two elements of Schenkerian theory or between the background and foreground structural levels; rather, I propose that musical structure is more omnidirectional with the content of each structural level simultaneously informing, motivating, and justifying the others in a complex interaction that Schenker, in *Der Tonwille*, describes metaphorically as the “miracle of circularity” (2004, 53).\(^\text{77}\)

Additionally, Brown’s strictly generative perspective, while a perfectly legitimate option for tonal music, is strained in relation to the Schenkerian interpretation of Bach’s modal practice that I have described in this chapter. The idea of generation in Brown’s view essentially depends upon the presence of a prototype as the source. Since the

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\(^\text{76}\) The transformation of the dominant through the augmented-sixth chord (see example 3.1) illustrates the total structural power that Brown ascribes to the *Ursatz*: even though Schenker limited prolongations of the structural dominant, Brown argues that the power of the prototype justifies virtually all voice-leading transformations of it. Brown demonstrates the furthest consequences of his perspective in his analyses of Debussy’s music, which clearly contains foreground and middleground musical behaviour that does not conform to normative tonal harmonic and contrapuntal procedures (Brown 2004/2005; 2005, 171–202).

\(^\text{77}\) I refer the reader again to Schenker’s various comments in *Free Composition* concerning the mutual enrichment and simultaneity of all structural levels (1979, §29, §47, §183). Karen Bottge (2015) also discusses this idea of the simultaneous activity of all structural levels as she relates Schenker’s theory of *Schichten* to nineteenth-century theories of aesthetic perception related to painting and sculpture.
theoretical framework I have adopted does not propose a structural prototype analogous to the *Ursatz*, the generative perspective does not obtain. In contrast, my perspective of Bach’s modal compositions is transformational, i.e., one in which a simple musical state in the background (see the *Urlinien* with bass harmonizations in example 3.3.3) is transformed by voice-leading diminutions acting upon it instead of arising from it. The distinction is subtle, but foundational.

In the course of this chapter, I have proposed several ideas that differ in varying degrees from Schenker’s presentation of his own theory. First, and most importantly, I do not appeal to the *Ursatz* as the highest structural element in the background. While this certainly deviates from the norm, I have argued in the context of this chapter that this approach does not necessarily contradict the principles of Schenkerian theory. I neither deny the existence of the *Ursatz*, question its applicability to tonal music, nor alter its form; but instead, I limit its purview to tonal music, for which it serves as the abstract prototype. The difference is one of emphasis rather than substance.

The corollary of this position is the conceptual distinction I identify between the abstract *Ursatz* and concrete voice-leading transformations. Even though this may seem at first to be a significant departure from Schenkerian theory, I have shown both that the abstract nature of the *Ursatz* as prototype implies this distinction and that Schenker’s own prose is ambiguous in this regard. At times Schenker seems to endorse the idea that the *Ursatz* directly generates voice-leading transformations; but at others, he describes the creation of musical structure through a simultaneous activity of every structural level from background to foreground, and he affirms the non-identity between the pitches of
the Ursatz and notes at the foreground. In the end, I do not separate the components of Schenkerian theory, but I simply propose a credible interpretation of the theory based on Schenker’s own writing. In other words, I do not deny or alter the connection between composing-out and the Ursatz; but instead, I endorse a particular view of the relationship between these elements of the theory. These two actions are substantively different: the former detaches Schenker’s analytical techniques from their theoretical basis, while the latter works with the principles of Schenkerian theory to explore their implications and the extent of their scope. As I have demonstrated, the latter approach can indeed produce results that differ from Schenker’s original presentation while nevertheless remaining consistent with the theoretical foundations he established. The Ursatz is missing from my theoretical framework because of the repertoire I investigate, not because I deny its role in explaining tonal composition. Essentially, I view my work as an effort to stretch the scope and fruitfulness of Schenkerian theory without sacrificing its accuracy or consistency in the process.

Additionally, the theoretical framework I have described implies what I have called a procedural, or behaviouralist, definition of tonality. In this view, tonality is conditional: it is the product of a particular global musical behaviour, which the Ursatz summarizes, instead of an independent, metaphysical musical state that creates the musical behaviour that instantiates it. As I noted above, Schenker appears to hold the latter view in *Free Composition*. My perspective, furthermore, tends to identify the key

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78 Needless to say, my interpretation of Schenkerian theory also depends upon Matthew Brown’s expression of it as a set of covering laws.
79 This dichotomy expresses the fundamental distinction between my work and Neumeyer’s and Burns’s. Neumeyer and Burns intentionally disengage the elements of Schenkerian theory, while I interpret the relationship between the elements of the theory without artificially isolating them.
idea of Schenkerian theory as composing-out instead of the *Ursatz*. I do not suggest by this that the process of composing-out generates the *Ursatz* in a complete reversal of Schenker’s ideas. Despite his claims, however, I do believe that the *Ursatz* is essentially an impossible proposition without the prior idea of composing-out. This does not negate or minimize the explanatory value of the *Ursatz* within the theory: it simply acknowledges that the *Ursatz*, as an abstract theoretical term, requires something to explain in order to be meaningful.\(^{80}\)

My theoretical framework also implies that the *Ursatz*, as the prototype of tonality, is irrelevant when considering non-tonal music. Even though this qualification seems obvious enough, Schenker certainly does not hold this opinion. As is evident in his judgement of non-tonal compositions (see chapter 1, section 1.2), Schenker regards the *Ursatz* as a universal standard by which one may legitimately measure all repertoires according to degrees of perfection corresponding to conformity with the *Ursatz*. In rejecting the universal applicability of the *Ursatz*, I certainly contradict Schenker, but I do not thereby imply that the presence or absence of the *Ursatz* provides no significant insight into different kinds of composition. For example (see examples 3.3.3 and 3.3.4), it is certainly relevant to note that, unlike tonal compositions, the absence of the *Ursatz* in Bach’s modal chorale preludes means that one should expect to find a certain amount of incongruity in the techniques of composing out between the different structural levels. This is both an accurate and a useful description of this repertoire, and one can make it only by appealing to the absence of the *Ursatz*.

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\(^{80}\) I reiterate (see section 3.1) here that the *Ursatz* can be understood as similar to the abstract term of an empirical theory. The purely abstract *Ursatz* is not in the musical data, but it derives its meaning to a certain degree through its connection to the observable musical data (see DeBellis 2010, example 3).
These latter two deviations neither inhibit us from proceeding nor call into question the legitimately Schenkerian orientation of my proposed theoretical framework. Schenker’s metaphysical, aesthetic, and historical commitments do not bind us necessarily since they have no empirical, logical, or epistemological consequences for the operation of the theory per se.
Chapter 4

The Modal Chorale Preludes for Solo Organ:
Contexts and Analyses

Introduction

This chapter presents original analyses of five modal chorale preludes for solo organ by J.S. Bach: “Ach Herr, mich armen Sünder,” BWV 742, from the Neumeister collection; “Nun komm, der Heiden Heiland,” BWV 599, “Lob sei dem allmächtigen Gott,” BWV 602, and “Komm, Gott Schöpfer, heiliger Geist,” BWV 631, from the Orgelbüchlein; and “Kyrie, Gott Vater in Ewigkeit,” BWV 669, from Klavierübung III. These analyses demonstrate the viability and potential of the theoretical framework proposed in the previous chapter, and they provide models for future work. The pieces I have chosen represent a range of the different compositional approaches that Bach adopted for his organ chorale preludes, and they originate from different times in Bach’s career. Relative to this study, the Neumeister chorale is the earliest and the Klavierübung Kyrie is the latest. On a more practical note, these chorale preludes are brief and can be presented in their entirety.

Before discussing the analyses and what they reveal in general about Bach’s modal compositional practice, it is worth revisiting Schenker’s commentary on modal composition in order to establish an interpretive context for this work and to respond again to these ideas. In developing an authentically Schenkerian interpretation of Bach’s modal chorale preludes, I remain as faithful as possible to the technical elements of Schenkerian theory; but I depart, however, from some of the aesthetic commitments and judgments of musical structure that Schenker makes concerning modal compositions.
In chapter 1 of this dissertation (see chapter 1, section 1.2), I examined Schenker’s technical criticisms of modal composition that we find throughout the *Neue musikalische Theorien und Phantasien* series, especially in *Harmony* and *Counterpoint*. As I identified in that context, Schenker’s most robust charge against modal music is its ostensible lack of complete coordination between its horizontal and vertical dimensions (1954, 163–73; 2001, 1:33–40): he contends that the requirements of strict counterpoint and traditional modal theory often produce triads that either contradict or exceed the harmonic content that he finds implicit in the horizontal melodic line.

Schenker’s observation relates to the theoretical framework that I have proposed for Bach’s music in several respects, both positive and negative. Consider the background structural level, an *Urlinie* with a variable harmonization: in this case, we can acknowledge the possibility of an incongruence between the horizontal and the vertical and thereby confirm Schenker’s argument. Since this structural level does not conform to an independent harmonic logic—that is, it does not obey the global laws of tonal harmonic progression (Brown 2005, 56–65)—the bass harmonization can plausibly express a different triad than the *Urlinie*. Indeed, it need not express a triad at all (see chapter 3, example 3.3.3a): the bass is required merely to provide triadic harmonic support for the pitches of the *Urlinie*. At structural levels later than the background, however, my framework does not admit a conflict between the horizontal and vertical. Since the foreground and middleground conform to the activity summarized in Brown’s local laws of voice leading and harmonic progression (2005, 41–65), these structural levels will show the same integration of horizontal and vertical that characterizes tonal
composition. I believe, therefore, that Schenker’s concern for horizontal and vertical congruence at the foreground and middleground levels does not apply to Bach’s modal compositional practice. The potential for dimensional incongruity in Bach’s music lies squarely in the background.

Consequently, my theoretical framework demonstrates how the Schenkerian perspective reveals a structural conflict in Bach’s music that lies significantly deeper than the horizontal and vertical dimensions that Schenker cites: there is an incongruity between the structural levels. For, without the ordering power of the global laws, Brown’s nomological expression of the *Ursatz*, we must acknowledge the possibility that the background structure of *Urlinie*-cum-harmonization can behave differently than the foreground and middleground, which conform to the tonal local laws (cf., chapter 3, example 3.3.4 and the surrounding discussion). Ultimately, I share Schenker’s conviction that modal composition lacks a complete internal congruity of its elements; in fact, I believe that this is a crucial element distinguishing modal from tonal composition. My theoretical framework clarifies how this incongruity operates in Bach’s modal compositional practice in particular.

I clarify again that one need not endorse the aesthetic interpretation that Schenker attaches to music that does not show perfect structural congruity. We need not conclude along with Schenker that modal compositions are less perfect or aesthetically inferior to tonal compositions. This qualitative evaluation and the technical fact of modal structural incongruity can be separated since they are based on fundamentally different assertions.
The latter is an empirical observation, while the former is a philosophical position requiring justification external to the music that it interprets.

In addition to his commentary on modal composition in general, Schenker also specifically mentions Bach’s chorale settings and the chorale preludes for organ. These remarks appear in his analysis of the opening chorus of the *St. Matthew Passion* from the tenth issue of *Der Tonwille* (2005, 127–34) and in a brief and incomplete commentary on the chorale entitled *Ein Wort über den Choral* which is attached as an appendix (*Nachtrag*) to his unpublished treatise on figured bass, *Von der Stimmführung des Generalbasses*, completed in 1917.¹ Schenker’s commentary in these two locations is complementary; in fact, the full meaning of Schenker’s point is clearest when these sources are read together. Let us conclude this introductory discussion, then, by examining Schenker’s thoughts about Bach’s chorale preludes.²

In his early treatment of the chorale in the unpublished *Generalbasslehre*,³ Schenker contends that most of Bach’s chorale settings demonstrate the same weakness as their predecessors: they are determined entirely by voice leading with no harmonic integration (see chapter 1, section 1.2). Schenker acknowledges that Bach “rationalized” (rationalisieren) his settings as far as possible—that is, he attempted to

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¹ For the little scholarship that exists concerning this unpublished treatise, see the following: Siegel 1990; Rothgeb 1981. After Schenker’s death, the introduction to the treatise was published as *Von der Stimmführung im Generalbass* (Schenker 1937). Unfortunately, Hedi Siegel’s plan to publish a complete translation in *The Music Forum* was never realized. A typescript of the treatise exists in the Oster Collection, and another typescript and the original manuscript in Jeanette Schenker’s hand exist in the Felix Salzer Papers. Both of these collections are held in the Music Division of the New York Public Library for the Performing Arts.

² Schenker’s comments refer to all of Bach chorale preludes. He does not distinguish between tonal and modal settings in this instance.

³ Hedi Siegel (1990, 15n5) uses the term *Generalbasslehre* as shorthand for Schenker’s *Von der Stimmführung des Generalbasses*. I adopt the same convention here for ease of reference.
incorporate the harmonic and integrate it with the melodic—but to no ultimate avail.

Importantly, Schenker reveals the reason why he believes that Bach’s chorale settings offer no real compositional development. Since a chorale melody is already a composed-out structure, it cannot accommodate a truly free composing-out of *Stufen*:

Später aber wurde die vorgeschrittenere Satztechnik auch in den Dienst des Chorals gestellt. Namentlich S. Bach hat den Satz nach Möglichkeit rationalisiert, so dass die kleinen Choralgebilde wenigstens den Tendenzen der Stimmführung gemäss bereits das Gehaben grösserer Kompositionen annehmen…. 

Wir wissen, dass bei einer in etwas grösserem Ausmasse auskomponierten Harmonie die vertikale Richtung ja gleichsam in die horizontale zu versinken scheint, und was da an Klängen auftaucht, mögen sie noch so differenziert sein, immer doch nur zugunsten von Durchgangs- oder Nebennoten-Wirkungen der horizontalen Linie zurücktritt. Mögen sich also die Klänge, wie eben bei Bach, noch so sehr als wirkliche Stufen gebärden, die Tonarten als wirkliche Tonarten, es fehlt ihnen allen gleichwohl die stärkste Beweiskraft, nämlich die eigene Auskomponierung der Stufen (zurückgedrängt durch Auskomponierung der Melodie selbst!), so dass letzten Endes die Stimmführung, streng genommen, doch nur wieder mit sich allein zu bleiben scheint, wie in den Choralarbeiten der ältesten Epoche. Freilich, bei Choral-Phantasien, wo in der Tat die einzelnen Klänge zur Auskomponierung eigenen Inhaltes berufen sind, dort melden sich selbstverständlich die Stufen in ihrer wirklichen Bedeutung an. (Schenker 1917, §3)

But later, more advanced compositional technique was put to the service of the chorale. In particular, J. S. Bach rationalized the setting as far as possible, so that the small chorale forms might assume the attributes of larger compositions, at least according to the conduct of the voice leading. …

We know that in composed-out harmony of somewhat larger proportions the vertical dimension seems to sink, so to speak, into the horizontal, and the chords that emerge, no matter how differentiated they are, always relate back to

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4This meaning of “rationalization” is not evident from the context of the *Generalbasslehre*, but we find a precedent for this term in *Harmony*. In the long “Note” appended to §88, Schenker explicitly links “rationality” to the coordination of the horizontal and vertical dimensions: “Once the harmonic element has entered into the life of the work of art, its first appearance, due to the exigencies of voice leading, inevitably being irrational, it will and must reach, so to speak, knowledge of itself and [arrive at] its own rationality. Now if the overabundance of vertical harmonies, as compared with the paucity of horizontal ones, proved to be the cause of the irrationality, it is natural that artistic genius should feel driven to equilibrate both quantities, or, which is the same thing, to create more content in the horizontal direction” (Schenker 1954, 171–72).
the horizontal line in favour of its passing- or neighbour-note functions. Therefore, in Bach’s settings, though the chords may behave like true Stufen, and the keys as true keys, the most essential element is still lacking, namely, the composing-out of individual Stufen (which is inhibited since the melody itself is composed-out!). So in the end, the voice-leading, strictly speaking, seems again only concerned with itself, as in the chorale settings of the earliest eras. Naturally, in chorale fantasies where the content of individual chords is indeed composed-out, there the Stufen of course declare their true significance.\(^5\)

Schenker believes that Bach’s chorale settings—despite their appearances and Bach’s best efforts—do not truly compose-out Stufen but are motivated solely by voice leading. The reason he provides for this, however, is somewhat cryptic. Since all melody is composed-out, it is not immediately evident that a composed-out chorale melody necessarily inhibits a true composing-out of Stufen. As I interpret this comment, Schenker seems to be indicating the following: since the chorale melody is a composed-out structure that exists prior to any harmonization, it totally controls the musical content of the setting. The chords, then, simply provide a type of contrapuntal accompaniment for the melody, and they do not participate in the generation of the musical content. In other words, the harmonies have no independent and creative musical force since the composed-out chorale has determined the musical content in advance. In contrast, a completely “rationalized” musical environment would presumably exhibit more equally appointed roles for melody and harmony in the generation of the musical structure; but this is not possible given the brevity of chorale melodies and the consequent dearth of triads they compose-out (Schenker 1917, §§2–3. See also chapter 1, example 1.2.5).

\(^5\) This translation is my own.
Even though its meaning is unclear from this context alone, we can better understand Schenker’s position via the negative route by examining a chorale fantasy, to which he attributes true composing-out of Stufen. Fortunately, we have an example of such a chorale fantasy in Schenker’s analysis of the opening chorus of the St. Matthew Passion. In this essay from Der Tonwille, Schenker explicitly contrasts the chorale prelude and the chorale fantasy according to the relationship of the chorale melody to the rest of the musical material:

Between the so-called chorale prelude and the chorale fantasy, as both find their highest fulfillment in the art of J. S. Bach, a specific distinction can be drawn. In the chorale prelude, the chorale melody is presented clearly as the main substance of the material, in complete adherence to a single key, which the apparent departures at the fermatas do not contradict; the individual lines, if not merely ornamented, are given preludes and postludes, usually with figuration. The chorale melody is still generative of the material in the chorale fantasy, of course, but its relationship to the other material takes a contrastingly freer form. (Schenker 2005, 127)

Schenker describes the role of the chorale melody in a chorale prelude as a kind of cantus firmus, a modestly adorned melody presented contiguously and remaining reasonably distinct from the texture of the accompaniment. The chorale melody in the chorale fantasy, however, is freer in its relationship to the other musical material since its individual pitches can be made discontinuous, and thereby they are capable of producing a composing-out of Stufen independent of the given melodic material.6

To illustrate this point, example 4.1 reproduces a portion of Schenker’s graph of the opening chorus (2005, 128), and his analysis of the Urlinie (2005, 129) of the chorale melody, O Lamm Gottes unschuldig:

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6 Schenker does not explicitly provide this reasoning, but I have surmised it on the basis of his graph of the chorale fantasy, which I have reproduced in example 4.1.
Example 4.1. *O Lamm Gottes unschuldig*, chorale fantasy and *Urlinie*

a) Graph of the chorale fantasy, mm. 1–17 (Schenker 2005, 128)

![Graph of the chorale fantasy, mm. 1–17 (Schenker 2005, 128)](image)

b) Analysis of the *Urlinie* (Schenker 2005, 129)

![Analysis of the *Urlinie* (Schenker 2005, 129)](image)

In the graph, Schenker shows that Bach has stretched out the *Urlinie* of the chorale melody, here realized in the minor mode, in the highest structural voice over the span of mm. 1–17: the upper neighbour-note figure appears in the B5–C6–B5 motion in mm. 1–9, and the descending fifth (which is slightly altered intervallically) occurs as B5–A5–G5–F5–E5 between mm. 9–17.\(^7\) What we see here, then, are individual notes of the chorale melody generating their own linear progressions (such as the descending 3rd, B5–A5–G5, prolonging B5 in mm. 4–6) and thereby enabling a more complete and genuine composing-out of *Stufen*.

I suggest in reading the two sources together, then, that this ability of the individual pitches of the chorale melody to separate themselves and generate new

\(^7\)The descending fifth that Schenker shows is intervallically altered: in m. 16, F\#5 is present instead of the expected F5. Schenker makes no mention of this in the prose discussing the graph. I suggest that a more normative analysis of this measure would interpret the F\#5–E5–D\#5 as a descent into the inner voice D\#5 that leads the Neapolitan triad into the Dominant, and that F\#5 as the true 2 in the larger fifth-descent should be placed above D\#5. The F\#5 is in the score, so it need not be indicated as an implied tone.
prolongations and Stufen is precisely what Schenker indicates in the Generalbasslehre that Bach’s other chorale settings cannot do; and the commentary in Der Tonwille connects this observation explicitly to chorale preludes. These two texts mutually explain and reinforce each other.⁸ Therefore, we can conclude that Schenker distinguishes the chorale prelude as a genre by its inability to compose-out Stufen freely by using individual notes of the chorale melody as anchors for generating novel prolongations unconnected to the chorale melody. Additionally, with the input from the Generalbasslehre we know that Schenker attributed the reality of this situation to the inherent limitations of the chorale melody.

Besides its general relevance to this study, I have mentioned Schenker’s assessment of the musical structure of Bach’s chorale preludes since my analyses contradict it: I show that the individual notes of the chorale melody can and do generate new linear progressions that genuinely prolong Stufen. This process occurs in several different ways and at different levels of structure; but, I will discuss these details below in the context of presenting the analyses that demonstrate them. Let it suffice to say for the moment that I believe Schenker’s view in this matter to be a direct result of the rudimentary state of his theoretical concepts at the time he committed it to writing: his still limited understanding of the Urlinie and the hierarchical levels of music did not

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⁸ Unlike his commentary in the Generalbasslehre, in Der Tonwille Schenker does not provide any reason why chorale preludes cannot produce the same kind of composing-out in the harmonic dimension. He makes no comment about the prohibitive, composed-out nature of the chorale melody. The Generalbasslehre clarifies the comments in Der Tonwille, and vice versa.
allow him to see that a chorale can assume more structural significance than a foreground or late middleground melody.⁹

### 4.1. Preliminaries and Generalizations

Before presenting the individual analyses, I offer below some preliminary comments that address my analytical methodology, the categorization and choice of the chorale preludes, and the features of Bach’s modal compositional practice in general.

**Modal Designations and Qualifications**

According to traditional modal theory, the melodies that Bach uses in the modal chorale preludes are of only five types, i.e., the Dorian, Phrygian, Mixolydian, Aeolian, and Ionian modes. Bach did not set a chorale in the Lydian mode, the single remaining system. Notwithstanding these five modal categories, I propose two qualifications that apply to Bach’s modal compositional practice in the chorale preludes. First, I exclude the Ionian mode from consideration since it is equivalent to the modern major key, and in the context of Bach’s music, it is best analyzed from a purely tonal perspective.

Second, and more importantly, my theoretical framework reveals that Bach’s chorale preludes effectively erode any meaningful distinction between the Dorian and Aeolian modes. To understand this, consider that the only difference between these modes is the quality of the sixth degree of their respective scales: ʌ of the Dorian mode

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⁹ Schenker clearly seems to have changed his position about chorale settings over time. One thinks immediately, for example, of his analysis (Schenker 1969, 32–33) of Bach’s SATB setting of Ich bin’s, ich sollte büßen. This analysis is nonsensical under the rubric that small chorale settings such as this one do not genuinely compose-out Stufen. Furthermore, Schenker’s numerous unpublished sketches of Bach’s figured-bass chorales in the Felix Salzer Papers (Series 2, Mappe 6) show the same approach to the analysis of the chorale and provide more evidence of his change in perspective.
lies a major-sixth above the final, while 6 of the Aeolian mode lies a minor-sixth above the final (see chapter 1, example 1.1.1). In order to distinguish between the Dorian and Aeolian modes within my theoretical framework, therefore, the background structure must in some way include 6. The Urlinie could include 6 if it were to begin its descent from 8; then, a modal designation would be possible. In my interpretation, however, Bach’s chorale preludes in these modes never employ an Urlinie beginning on 8.

Similarly, the background harmonization of the Urlinie could incorporate Stufen that include 6, which would also permit a distinction between the Dorian and Aeolian modes. Besides one exceptional case, Bach consistently avoids these Stufen, and as a result, a distinction between these modes is normally impossible. Consequently, even though my theoretical framework permits one to distinguish the Aeolian and Dorian modes in the background, Bach rarely employs the means needed to do so. As a result, I combine these modes into a single “Dorian-Aeolian” category. Consequently, for this study, I consider only three different modal categories for Bach’s chorale preludes: the Dorian-Aeolian, Phrygian, and Mixolydian modes. Additionally, I do not make any distinction between authentic and plagal modal divisions.

10 This is the case, of course, since the middleground and foreground levels obey Brown’s local laws of tonal voice leading and harmonic progression. As a result, the quality of 6 at these levels is variable: it can be diatonic or inflected through mixture or tonicization. For this reason, my theoretical framework does not distinguish the Dorian and Aeolian modes at any structural level later than the background. In general, therefore, modal designations must be made by considering the background only.

11 This is the case since the quality of these Stufen varies between the Dorian and Aeolian modes: the Dorian mode has a minor ii-, a major IV-, and a minor vi-Stufe; the Aeolian mode has a diminished ii°-, a minor iv-, and a major VI-Stufe. In both modes, these Stufen could be possible harmonizations for either 3 or 2.

12 I discuss this exception in the context of example 4.1.3a-3 below.

13 The name “Dorian-Aeolian” is appropriate since it acknowledges simultaneously that my framework does not distinguish these modes in Bach’s chorale preludes and that melodies in these modes are unique. I do not attempt to add a new designation to traditional modal theory: I simply adapt existing terminology to reflect the unique situation of Bach’s modal compositional practice in the chorale preludes.
(see chapter 1, example 1.1.2). While the difference between authentic and plagal is certainly important in the context of traditional modal theory, it has no relevance whatsoever to a Schenkerian interpretation of Bach’s modal compositional practice. My theoretical framework bypasses any need to invoke the terminology and concepts of traditional modal theory, which are essentially monophonic and purely descriptive (see chapter 1, section 1.2).

Finally, even though most, if not all, of the chorale melodies Bach uses are modal due to their age, one cannot indiscriminately regard all the chorale preludes as genuinely modal. Rather, one must find a way to judge between those settings that are modal and those that are tonal. In the context of this study, I believe the following approach is the most appropriate: I consider modal only those settings which cannot be otherwise explained from a tonal perspective. This rubric, then, automatically excludes chorale preludes that end with an authentic cadence. For example, Bach frequently uses a perfect-authentic cadence to close settings of Aeolian and Dorian chorale melodies; but I treat such cases as equivalent to the modern minor key regardless of the modal identity of the melody.14 This qualification is appropriate for two different reasons. First of all, I believe that tonality should be the default position for Bach’s music. For the indisputable majority of his work, Bach writes tonal music, and his brief excursions into non-tonal writing always occur in the context of setting a choral melody; which is to say that Bach ostensibly did not find free compositional inspiration in the older modal system. As a

14 Examples of chorales of this type are too numerous to list. In fact, most of Bach’s chorales fall into this category. One pertinent example, however, is Bach’s treatment of Nun komm der Heiden Heiland, a Dorian melody. Bach’s three settings of this chorale in the Leipzig collection (BWV 659–61) end with perfect-authentic cadences and should be interpreted as tonal pieces in the minor key. In contrast, the setting of this same chorale in the Orgelbüchlein collection (BWV 599), which I present below, is a modal setting.
result, tonality is always the best option when it is available. Second, my determination of modal chorale preludes is a natural consequence of the theoretical framework I have proposed. Since the modality of this music lies in the background, a final authentic cadence is necessarily incompatible with Bach’s modal compositional practice.\footnote{This is a notable divergence between my work and Lori Burns’s: since Burns defines modal voice-leading and harmonic patterns at all levels of structure, she can admit a closing authentic cadence for Dorian, Aeolian (see chapter 2, section 2.2, example 2.2.1), and Mixolydian settings (Burns 1995, 58–59 [Note that Burns’s “example 34” contains a typographical error: both the staves should show an F♯ in the key signature]).}

The chorale preludes I analyze here represent each of the modal categories identified above: “Nun komm, der Heiden Heiland” is Dorian-Aeolian; “Lob sei dem allmächtigen Gott,” “Kyrie, Gott Vater in Ewigkeit,” and “Ach Herr, mich armen Sünder” are Phrygian; and “Komm, Gott Schöpfer, heiliger Geist” is Mixolydian. These chorale preludes are also of a single type in that they present the chorale melody in the highest voice. This is an important restriction to my study: even though Bach wrote chorale preludes that present the chorale melody in other voices, my work pertains only to those that feature the chorale melody in the soprano. In fact, chorale preludes with the melody in any voice but the soprano may not be amenable to the Schenkerian theoretical perspective. I will return to this point in the conclusion of the dissertation.

The Foreground

As explained in the previous chapter, I propose that Bach’s modal compositional practice in the chorale preludes conforms to Brown’s local laws of tonal voice leading and harmonic progression. Therefore, the foreground structures of this music, as my analyses demonstrate, contain nothing that would be out of place in a conventional
Schenkerian graph: the foreground contains normative tonal harmonic progressions and voice-leading transformations prolonging individual melodic pitches as members of Stufen. I neither define nor identify any musical behaviour at this structural level that one might consider quintessentially modal. In general, then, no further comment on the foreground is required. Indeed, the foregrounds in my analyses are noteworthy precisely because they are unremarkable from a strictly Schenkerian perspective.

One consistent feature of the foreground, however, deserves brief comment. In the chorale preludes I present—and for that matter, in virtually every modal chorale prelude—Bach elaborates the final cadence with a motion through the subdominant. Since it is essentially a foreground event, we may describe this elaboration using tonal terminology: the final tonic is transformed with the addition of the minor-seventh into the dominant of the subdominant; then, the subdominant follows, and this chord leads directly back to the tonic. Example 4.1.1 illustrates such a cadence and its analytical interpretation as an embellishment of the tonic:

Example 4.1.1. Elaborated final cadence

a) ![Example 4.1.1a](image)

b) ![Example 4.1.1b](image)

16This example represents an idealized model of the final cadence elaborated through the subdominant, and other variants exist. Furthermore, instances of elaborated cadences such as this in a modal context would include a minor v chord instead of the major V shown here (cf., examples 4.1.3a-1 and 4.1.3 c-1). Consider mm. 34–37 of the chorale prelude “Herzliebster Jesu, was hast du verbrochen,” BWV 1093, from the Neumeister collection. This cadence uses a minor v triad, omits the initial I b7 of the pattern (cf., example 4.1.1b), and extends the chord progression, i.e., v7–iv–I b7–iv–I. I consider this cadence to be a variant of that shown in example 4.1.1.
I do not consider this kind of cadential elaboration to be a modal event. Bach consistently writes elaborated final cadences of this and various other kinds in both his tonal music and his modal chorale settings; and as a result, an elaborated final cadence does not automatically suggest a modal framework.\textsuperscript{17}

There can be a temptation, however, to view elaborated final cadences as modal when they occur within the setting of a modal chorale melody. For example, consider the ending of “Gelobet seist du, Jesu Christ,” BWV 604, from the \textit{Orgelbüchlein}. The chorale melody is Mixolydian, but this setting is thoroughly tonal.\textsuperscript{18} Example 4.1.2 shows the analysis of the final cadence:

\textbf{Example 4.1.2. “Gelobet seist du, Jesu Christ,” BWV 604, final cadence}

a) “Gelobet seist du, Jesu Christ,” BWV 604, mm. 8–11

\begin{figure}
\centering
\includegraphics[width=\textwidth]{example4.1.2a.png}
\end{figure}

b) “Gelobet seist du, Jesu Christ,” Analysis, mm. 9–11

\begin{figure}
\centering
\includegraphics[width=\textwidth]{example4.1.2b.png}
\end{figure}

\textsuperscript{17} For a summary of the different elaborated cadences that Bach uses and where they appear in his works, see Anson-Cartwright 2007.

\textsuperscript{18} The reader will recall Schenker’s criticism of Bach’s modal SATB harmonization of this same chorale melody (see chapter 1, section 1.2, example 1.2.1).
Since this piece, and the Mixolydian mode in general, emphasizes subdominant harmony and melodically, one might suppose that the appearance of the subdominant at the final cadence could suggest an overall modal orientation of the music.\textsuperscript{19} I maintain, however, that this kind of cadence is never distinctly modal: I see no reason to elevate an essentially elaborative design into a structurally significant harmonic and contrapuntal event. In the case of this piece, a minor $v$-\textit{Stufe} harmonizing $\hat{2}$ would more strongly indicate an overall modal design.\textsuperscript{20}

\textit{The Middleground}

Like the foreground, the middleground structural levels in Bach’s modal chorale preludes are conventional from the Schenkerian perspective: they conform to Brown’s local laws of tonal voice leading and harmonic progression. In the earliest middleground levels one would observe only the local-main laws and not the local-subordinate laws, which apply distinctively to the foreground and later middleground levels approaching the foreground. In the majority of my analyses, I present two middleground levels that strike a balance between these ends of the spectrum.

Even though the musical structure of the elements proper to the middleground is unremarkable, several features of Bach’s modal compositional practice become more prominent at this structural level. First, the middleground clearly reveals the higher-order

\textsuperscript{19}In contrast, as discussed previously, Burns argues that elaborated cadences of this kind can be definitively modal features (see chapter 2, section 2.2, example 2.2.1c).

\textsuperscript{20}In this regard, it is interesting to recall Kirnberger’s discussion of modal cadence systems (see chapter 1, section 1.1). Kirnberger would have considered the subdominant approach to the tonic as a genuine Mixolydian cadence instead of a superficial elaboration of the final triad. See also Anson-Cartwright 2007, 282–83.
prolongations that individual pitches of the chorale melody produce, in contradiction to Schenker’s judgement of the chorale prelude. We see that the chorale melody relates to the *Urlinie* differently than Schenker had anticipated. The chorale melody itself is not the *Urlinie*, but certain pitches of the melody are more significant structurally than others.

Finally, the middleground frequently highlights more clearly than the foreground the moment when a sense of tonality fades away and modality emerges in its stead. One consequence of the incongruity between structural levels in Bach’s modal compositional practice is a distinctly perceivable moment of conflict between tonal and modal musical language. Because the foreground and middleground levels behave tonally, one hears the chorale as tonal until the modality of the background intrudes in the end to create a shift in the aural perspective.\textsuperscript{21} Most often—and especially in the Phrygian and Mixolydian settings—this aural shift occurs around one particular triad that Bach exploits for a double purpose: we first hear it in a tonal context, but the way in which Bach treats it reveals a different function entirely. Since it strips away most of the later-level tonal activity, the middleground can set into relief this truly pivotal locus of musical blending from which modality emerges.

*The Background*

Since it is the element that departs the most from what we encounter normally in a Schenkerian graph, the background structural level of Bach’s modal chorale preludes requires the most comment. As discussed in the previous chapter (see chapter 3, section

\textsuperscript{21} Indeed, one of the challenges of Bach’s modal chorale preludes from the listener’s perspective is hearing the final cadences as effecting closure: from a purely tonal hearing, Bach’s modal chorale preludes sound as if they end on a dominant triad.
3.3), Bach’s modal compositional practice is not governed by the *Ursatz* but by other structural forces, i.e., the *Urlinie-Stufe-Stimmführung* paradigm. In this framework, the *Urlinie* is the primary creative agent in that it completely determines both the melodic/horizontal and harmonic/vertical dimensions of the musical structure, while voice leading ties these dimensions together.

In the background, then, the upper voice is this structurally dominant *Urlinie*, understood according to Schenker’s description of it in *Der Tonwille*. It is tied to musical surfaces, and it can legitimately take on distinctly modal features such as $\frac{b2}{2}$ of the Phrygian mode. Since the background contains an *Urlinie* that is faithful to Schenker’s conception, I use the conventional beamed half-note notation for its pitches, and I label them with the standard scale-degree designations above the staff.\(^{22}\)

The lower voices in the background express the *Stufen* that harmonize each scale-degree of the *Urlinie*. Since it is the *Urlinie* itself that generates them, these *Stufen* do not conform to any independent harmonic logic and are entirely justified by the *Urlinie*. As a result, the succession of *Stufen* is entirely free and unconstrained, provided that each *Stufe* forms a triad—major, minor, or diminished in root position or first inversion—with the particular pitch of the *Urlinie* that it accompanies. Indeed, the structural primacy of the *Urlinie* produces a harmonic environment in which all *Stufen* enjoy equal status and arise purely through the exigencies of voice leading. Naturally, musical logic ostensibly

\(^{22}\)The only exception I make in this regard occurs in the Phrygian-mode settings. Even though the diatonic scale-degree two of the Phrygian mode lies a semitone above the final, I use “$\frac{b2}{2}$,” instead of “$2$,” to label it. I do this in order to emphasize its unique character with respect to the usually tonal orientation of the *Urlinie* in general.
requires that the final Stufe should harmonize 1 as the root of a triad; but this observation is not equivalent to asserting an independent harmonic motivation akin to tonality.

Since the lower voice of the background does not conform to Schenker’s conception of the prototypical Baßbrechung of the Ursatz, I do not adopt his conventional half-note notation. Instead, I use quarter notes that are beamed to highlight that they belong in the background structural level with the Urlinie. To indicate clearly which Stufen appear in the background, I use the conventional roman-numeral designations, but with the proviso that this notation does not indicate a harmonic meaning analogous to tonality. In other words, I do not attempt to define a conception of modal Stufen or harmonic progressions that are quintessentially modal rather than tonal. The roman numerals simply indicate upon which degrees of the modal scale the Stufen are built and their quality as major, minor, or diminished. This notation is appropriate since the triads in the background are real Stufen since they are capable of prolongation.

In summary, then, the background consists of anUrlinie with a harmonizing accompaniment. To reiterate (see chapter 3, section 3.3), this musical structure is not a prototype and does not function in a way analogous to the Ursatz. Rather, each background is unique either to a particular piece or a group of similar pieces. Following Schenker’s lead (1979, 4), most theorists identify the term “background” with the prototypical Ursatz; and as a result, it may seem incorrect to identify the Urlinie-cum-harmonization as the background of Bach’s modal chorale preludes. In reality, however, Schenker distinguishes between the background as a structural level and the musical

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23 In contrast, the roman numerals proper to the foreground and middleground do carry their conventional tonal meanings since these levels of structure behave tonally.
content that occupies it. In the first chapter of *Free Composition*, Schenker describes the *Ursatz* as the “content of the background in music” (1979, 4), and as existing “in the background” (1979, 6). The background as a structural level, the abstract “origin” of the “musical work of art” (1979, 3), is not identical to the *Ursatz* even though the two concepts are intimately related. Given this distinction, one finds that the background structural level, in general, must contain a simple musical state like the *Ursatz* that may undergo successive transformations into more complex states. Schenker identifies precisely this feature of the *Ursatz* as he speaks of the relationship between the different structural levels.

It is an inevitable principle that all complexity and diversity arise from a single simple element rooted in the consciousness or the intuition. (Even instruction in the beginning classes of music schools rests upon this principle.) Thus, a simple element lies at the back of every foreground. The secret of balance in music ultimately lies in the constant awareness of the transformation levels and the motion from foreground to background or the reverse. (Schenker 1979, §29)

My analytical framework establishes the *Urlinie* with its harmonization as the simplest musical state that undergoes transformation until it reaches the foreground level of Bach’s modal chorale preludes. It is appropriate, therefore, to identify a background structural level for this repertoire even though it is not governed by a prototype.

Even though by its nature the background is flexible and capable of accommodating many different arrangements of *Stufen*, Bach uses only seven different background patterns for his modal chorale preludes. Example 4.1.3 illustrates each of these types according to their modal category: the Dorian-Aeolian and Phrygian

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24 Again, I make the qualification that the background models in example 4.1.3 apply only to chorale preludes that present the chorale melody in the soprano voice. Importantly, there is some evidence to suggest that Bach does change his harmonic approach when the chorale melody is in an inner voice or the bass voice. I return to this point in the concluding chapter of the dissertation.
categories each contain three different backgrounds, while the Mixolydian exhibits one distinct background. Even though these background models consistently show an *Urlinie* beginning on $\hat{3}$, they presume the possibility that any *Urlinie* may begin on either $\hat{5}$ or $\hat{8}$ while the harmonic content remains identical, with the normal adjustments. Also, the transpositional level of each these background models is inessential and should not be taken as indicating the pitch of chorale preludes in these modes.

**Example 4.1.3. Backgrounds in Bach’s modal chorale preludes**

a) Dorian-Aeolian

1. 

```
   3  2  1
   i  v  I
```

2. 

```
   3  2  1
   i  VII  I
```

3. 

```
   3  5  1
   i  ii^6  I
```
b) Phrygian

1.

2.

3.

c) Mixolydian

1.
None of these backgrounds could represent a tonal composition. Even though the first background models of the Dorian-Aeolian and Mixolydian categories resemble the *Ursatz*, the minor v*-Stufen* supporting 2 in both models deviate from the tonal norm. Naturally, the remaining Dorian-Aeolian models do not even resemble the tonal standard since they show harmonic progressions that include either the major VII-*Stufe*, in the case of the second Dorian-Aeolian background, or the ii6-*Stufe*, in the case of the third Dorian background. The second and third Phrygian backgrounds show the most noteworthy patterns. In these cases, 3 is supported by the VI-*Stufe*, and b2 generates either the vii-*Stufe* or, more surprisingly, the v6-*Stufe*.25

In the next section, I present analyses that exhibit five of these background models. I have omitted pieces based on the second and third Dorian-Aeolian models (4.1.3a-2 and -3). These backgrounds are rare, and as such they do not merit particular attention: Bach’s normative procedure for this modal category is captured in the first Dorian-Aeolian model (4.1.3a-1). Furthermore, with the background structure known in advance, the analyses of these chorale preludes can easily be inferred from the example set by the analyses I do present. Concerning the second Dorian-Aeolian model, I have found two chorale preludes that are based on this pattern: “Christe, der du bist Tag und Licht,” BWV 1096, and “Vater unser im Himmelreich,” BWV 737. Both of these chorale

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25 I discuss this peculiar harmonization in the commentary for the analysis of “Lob sei dem allmächtigen Gott,” BWV 602, in example 4.2.4 below. In addition to the unusual *Stufen*, the background in example 4.1.3b-3 shows voice leading that deviates from the tonal norm: the diminished-fifth B3–F4 in the upper voices does not contract into a third, C4–E4, as expected, but it expands onto a sixth, G#3–E4. I also discuss this unusual voice leading in the analysis of “Lob sei dem allmächtigen Gott.”
preludes are from the *Neumeister* collection.\textsuperscript{26} Similarly, I have found only one instance of the third Dorian-Aeolian background model: “Ach Gott, tu dich erbarmen,” BWV 1109, again from the *Neumeister* collection.\textsuperscript{27} This chorale prelude is best analyzed with the *Urlinie* beginning on 5. Unlike the other two models in this category, however, this third background (4.1.3a-3) is specific to the Dorian mode since the ii\textsuperscript{6}-*Stufe* harmonizing 2 includes F#, the major-sixth above the final.\textsuperscript{28} Nevertheless, I argue that the exceptional nature of this background precludes it from defining its own category, and I place it within the Dorian-Aeolian category with the caveat that it cannot represent the Aeolian mode.

To reiterate, the normative and most accurate representation of Bach’s treatment of Dorian and Aeolian chorale melodies is the background found in example 4.1.3a-1. The other two backgrounds in the Dorian-Aeolian category should be treated as exceptions from the norm and relatively unimportant to Bach’s modal compositional practice as a whole. In this regard, it is interesting to note that the three chorale preludes mentioned above are all found in the *Neumeister* collection, which dates from the earliest period of Bach’s compositional output (before 1708). As a result, the chorales included in this collection are somewhat experimental in nature. It is plausible that Bach did not return to explore the harmonic devices he used in these three chorale preludes since he

\textsuperscript{26} These two chorale preludes are unique in Bach’s output. The setting of “Christe, der du bist Tag und Licht” is the only one for organ that Bach composed. We do find an SATB harmonization of this melody (Bach 1941, no. 245), but it is tonal. Concerning “Vater unser im Himmelreich,” Bach did compose other chorale preludes using this melody (BWV 636, 682, 683, 762), but these settings are all tonal as well. Similarly, Bach’s SATB harmonizations of “Vater unser” (1941, nos. 47, 110, 267, 292) are also tonal.

\textsuperscript{27} Again, this chorale prelude is the only setting of it that Bach composed in any genre. Bach had intended to include a setting of this chorale in the *Orgelbüchlein*, but this plan was never realized (see Stinson 1996, 2–12).

\textsuperscript{28} The Aeolian counterpart to this triad would be the ii\textsuperscript{6}-*Stufe* with F instead of F#. 
ultimately found them unsuccessful. Christoph Wolff notes that Bach “apparently did not make these works readily available to his students and colleagues since he had in the meantime reached a higher level of proficiency” (1985, 9).

As I have mentioned before (see chapter 1, section 1.1), I do not approach Bach’s modal compositional practice in the chorale preludes for organ with an a priori definition of modality or any assumptions about the features and characteristics of modal compositions. Instead, I allow the behaviour of Bach’s music, as revealed through the Schenkerian perspective, to define how it is modal. Since it is the locus of non-tonal behaviour, the background structural level—and particularly, the musical content of the background models I have identified—contributes a vital component to the definition of Bach’s modal compositional practice. Indeed, one can answer how or why Bach’s chorale preludes are modal by pointing to the musical behaviour of the background; and at the same time, this provides a clear definition of what modality means for Bach’s music. The behaviouralist conception of tonality that I endorsed earlier also holds for modality understood as a specific kind of musical behaviour.
4.2. Five Chorale Preludes

*Nun komm, der Heiden Heiland*

Example 4.2.1 presents an analysis of “Nun komm, der Heiden Heiland,” BWV 599, the first chorale prelude in the *Orgelbüchlein* collection. The melody, set here with minor embellishments, is traditionally considered Dorian and it is an adaptation of the Latin Gregorian hymn for Advent *Veni Redemptor Gentium* (Come, Saviour of the Nations). This chorale prelude exemplifies the first Dorian-Aeolian background model (example 4.1.3a-1): the minor *v-Stufe* supports 2 in the descent of the *Urlinie* from 3.

This setting is typical of Bach’s modal compositional practice in that it behaves tonally until the final cadence when the true modal orientation is revealed: indeed, nothing in the first eight measures of this music contradicts a hypothetical A-minor tonal environment. Using the theoretical framework I have proposed, we can explain this behaviour by appealing to the fact that Bach’s modal chorale preludes behave tonally at the foreground and middleground. Even though it underlies the composition from the beginning, the modality of the background intrudes upon the listener’s aural perspective only towards the final cadence when the minor *v-Stufe* arrives to support 2 in m. 9.

Interestingly, Bach seems to have been consciously careful to mitigate the potentially jarring effect of the appearance of this *v-Stufe* after a completely tonal aural framework. By elaborating the final A-major triad through a D-minor triad, he conditions the

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29 Even though the melody does not contain 6, the only factor of difference between the Dorian and Aeolian modes, most theorists have labeled the melody as Dorian or Hypodorian. For reference, see Burns’s (1995, 219–23) useful catalogue of modal designations in various historical theory treatises.

30 Other examples of Dorian-Aeolian chorale preludes that behave in this way include “Jesus Christus, unser Heiland,” BWV 665 (a Dorian melody), from the *Leipzig* chorales, “Jesu, meine Freude,” BWV 1105 (a Dorian melody), from the *Neumeister* collection, and “Herzliebster Jesu, was hast du verbrochen,” BWV 1093 (an Aeolian melody), from the *Neumeister* collection.
Example 4.2.1. “Nun komm, der Heiden Heiland,” BWV 599
listener to perceive the E-minor triad as the supertonic in a local tonicization of D minor, i.e., ii–V$_5^6$–i–V. This tonal hearing is not unproblematic since it positions the last sonority of the music as a dominant; but in context, it is less disruptive than the alternative option of ending directly with an unembellished A-major triad. The design of this music achieves a nearly seamless balance between tonal and modal musical languages.

The middleground analysis reveals the large-scale motion that underlies the first three phrases of the chorale melody: C5, 3, emerges as the Kopfton which is prolonged, in an Ursatz parallelism, through a descent of a third, C5–B4–A4, accompanied by a conventionally tonal harmonic progression, i–VI–ii$_5^6$–V–i, between mm. 2–7. As the Kopfton, this C5 emerges as more structurally significant since other pitches of the chorale melody arise through a composing-out of this pitch. We see in this music, therefore, an individual note of the chorale melody producing a higher-order prolongation and thereby elevating the essential musical content to a structural level beyond the melody in the foreground. In other words, the composing-out of the chorale melody exists earlier than the foreground. The prolongation of C5 has not generated new material unconnected to the chorale melody as Schenker finds in his analysis of the chorale fantasy opening the St. Matthew Passion; but, it still challenges Schenker’s early contention that the chorale prelude can neither establish a structural hierarchy among the individual pitches of the chorale melody nor compose-out Stufen.

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31 I assume that phrases in the chorale melody are delimited by the fermatas.
32 This is to say, the voice-leading transformations prolonging C5 and the i-Stufe produce the chorale melody itself.
The next graph in example 4.2.2 is an analysis of “Ach Herr, mich armen Sünder,” BWV 742, from the Neumeister collection. The chorale melody is Phrygian and is more commonly known as *Herzlich tut mich verlangen*, the chorale adaptation of Hassler’s secular song.\(^{33}\) Unlike the unadorned, declamatory style of “Nun komm, der Heiden Heiland,” Bach uses constant figuration to embed the chorale melody within larger groupings. Furthermore, a fantasy-like introduction in mm. 1–4 precedes the first appearance of the chorale in the upper voice in m. 5. The analysis observes the following layout: part one (two pages) presents the foreground and late middleground levels; and for ease of comparison, part two (one page) reproduces this same late middleground and combines it with an earlier middleground level and the background.

This setting observes the bar form (AAB) of the original chorale melody by presenting two statements of the first phrases of the chorale melody, the *Stollen*.\(^{34}\) These are in mm. 5–9 and mm. 9–13 respectively. Each statement follows the same tonal harmonic path arpeggiating the B-minor triad, the governing sonority of this part of the music: B minor leads to a tonicization of D major that leads back to B minor through the dominant, i.e., i–III–V–i. Bach introduces variety in the repetition, mm. 9–13, by increasing the melodic figuration surrounding the melody and recomposing the first half within a descending-second sequence (m. 9, beat 3, to m. 10, beat 2).

\(^{33}\) I have already discussed in chapter 1 (sections 1.2 and 1.3) Schenker’s commentary on this chorale melody in SATB harmonizations by Hassler and Bach. For a review of the history of this chorale melody, the various titles and texts associated with it, and its different versions, see Hill 1994. In this setting, Bach uses the variant of the chorale melody that ends with the modal final approached by step from below instead of by leap or step from above as it is most commonly heard (Zahn 1963, no. 5385).

\(^{34}\) Russell Stinson (2012, 28–39) provides a useful summary of Bach’s practice in the chorale preludes of repeating *Stollen* with variations.
Example 4.2.2. “Ach Herr, mich armen Sünder,” BWV 742-Part 1
As the background graph shows, this chorale prelude falls under the first Phrygian model (example 4.1.3b-1) in which 3 and 1 are harmonized with the i-Stufe and modally-mixed I-Stufe respectively, the triad on the modal final, and b2 with the vii-Stufe. What is most remarkable about this music is the significantly delayed appearance of the background structure: the Kopfton, A4, arrives only in m. 18, the fourth-last measure of the music. Before this point, as shown most clearly in the early middleground graph in Part 2 of example 4.2.2, the music prolongs the B-minor triad, the iv-Stufe, and B4 as an upper neighbour to the Kopfton. Furthermore, as expected, this prolongation is thoroughly tonal since it exists later than the background. As a result of these two features, the music sounds as if it is in the tonal key of B minor, and the concluding F major triad, the I-Stufe, has the aural quality of the dominant of B minor. But this hearing is illusory: as in “Nun komm, der Heiden Heiland,” Bach’s compositional technique softens the aural transition between tonality and modality.

The late middleground analysis reveals that, like “Nun komm, der Heiden Heiland,” Bach has distributed the individual pitches of the chorale melody hierarchically insofar as they relate to the different structural levels. We still do not encounter, however, individual pitches that generate new content unrelated to the original chorale melody.

Since this chorale prelude spends most of its time prolonging the B-minor triad, we may say that it exemplifies, on the large scale, a conflict between musical structure

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35 I present the Phrygian-mode analyses in the same order as the models in example 4.1.3. Other chorale preludes of this kind include “Erbarm dich mein, o Herre Gott,” BWV 721, and “Aus tiefer Not, schrei ich zu dir,” BWV 687, from Klavierübung III.

36 I reiterate here (see chapter 1, section 1.1) that instances of modal mixture need not disturb the modal environment I am proposing. Since I do not invoke the terminology and concepts of traditional modal theory, my theoretical framework can freely accommodate mixture without disrupting any preconceived notion of modal identity.
and design. Even though the B-minor triad is the most prominent and well-established sonority for the majority of the music, it is entirely subordinate structurally to the F#-minor i-Stufe. To be clear, I argue that this conflict between structure and design is not an inherently modal event. Indeed, this kind of situation is perfectly compatible with tonal music, and the often complex interaction between the structure and the design of individual pieces can take a prominent role in the analysis of tonal composition.\textsuperscript{37} I believe, therefore, that one must avoid any tendency to regard as distinctively modal, or even distinctly Phrygian, the lengthy prolongation of B4 as an upper neighbour to the Kopfton. In this particular case, the temptation to do so is great since the B4 has a definite connection to traditional modal theory: as 4, it is the reciting tone of the F#-Hypophrygian mode (see chapter 1, section 1.1, example 1.1.1). Since the concept of the reciting tone is purely descriptive, however, I see no benefit to pointing out this coincidence. It is much more fruitful analytically and theoretically to understand the B-minor triad and B4 through the lens of a conflict between musical structure and design.

\textit{Kyrie, Gott Vater in Ewigkeit}

Example 4.2.3 is an analysis of “Kyrie, Gott Vater in Ewigkeit,” BWV 669, from Klavierübung III. The chorale melody is Phrygian,\textsuperscript{38} and the setting conforms to the second background model (example 4.1.3b-2): it begins with an extended prolongation of the VI-Stufe. I have divided the graph into two parts: part one (three pages) is the

\textsuperscript{37} For an insightful discussion of this issue, see Schachter 1990.

\textsuperscript{38} This chorale melody is an adaptation of the Gregorian \textit{Kyrie Fons Bonitatis} (Liber Usualis, 19). See Renwick 1992 for more details about this melody. The pedal-obbligato setting I analyze here is distinct from the \textit{manualiter} version that Renwick analyzes (see chapter 2, example 2.3.1b).
foreground and late middleground; part two (one page) reproduces the late middleground and adds an earlier middleground and the background.

This chorale prelude is among the small group of pieces that Bach wrote in the *stile antico*, the sixteenth-century vocal polyphonic style. Christoph Wolff describes the attributes of the *stile antico* as below:

The melodic style is beholden to the single line, vocally conceived, consistently diatonic, avoiding chromaticism, and evenly balanced between thesis and arsis. The rhythmic structure shuns strong accents and contrasts; it is shaped in the manner of prose, the flow of the vocal line contours corresponds to unconstrained gestures of speech. In this sense the age of classical vocal polyphony is still linked to the Flemish mensural practice marked by fluent declamation and unencumbered by regular metric accents. The affinity to mensural music is readily seen in the preponderance of large note values (the quarter note is the smallest unit). The performance speed is governed by the natural pulse of the *integer valor notarum*, the unchangeable pace represented principally by half-note motion; it allows occasionally for proportional but never arbitrary tempo modification. The harmonic nature arises from the vertical sonorities of the polyphonic fabric, it does not function as a primary element of structure, as it does in later periods. (Wolff 1991, 85–86)

“Kyrie, Gott Vater in Ewigkeit” clearly exhibits these characteristics: the soprano presents the chorale melody itself in whole notes and breves, and the other voices move freely and evenly in a truly polyphonic style underneath the melody. The lower voices also approximate a polyphonic imitative texture as they exchange statements of the incipit of the fugal motive (in both the *rectus* and *inversus* forms) that appears in the *fughetta* beginning the piece. In addition to the introduction, four relatively lengthy interludes—mm. 8–11, 16–18, 23–25, and 32–35—punctuate each phrase of the chorale melody.

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39 For a list of Bach’s pieces written in the *stile antico*, see Wolff 1991, 93. See also Wolff 1968.

40 The motive first occurs in the tenor voice from m. 1, beat 1, to m. 3, beat 3. The motive is itself an elaboration of the first two phrases of the chorale melody. In the music after the *fughetta*, the motive is shortened to its first eight notes only.
Example 4.2.3. “Kyrie, Gott Vater in Ewigkeit,” BWV 669-Part 1
Part 1 continued
Part 1 continued
Once again, the foreground and middleground analyses are noteworthy precisely because they are unremarkable from the Schenkerian perspective. All of the voice-leading and harmonic activity is quintessentially tonal. As a result, the listener comfortably perceives the key of Eb major for the first thirty-six measures of the music, the majority of the piece, until the modality of the background asserts itself in mm. 37–42. The relatively delayed intrusion of modality remains a hallmark of Bach’s modal compositional practice. In this instance, however, the effect is significantly different than that in “Ach Herr mich armen Sünder”; for here, the Kopfton, 3 or B♭4, is present from the beginning of the music in m. 5. Instead of both a harmonic and melodic shift in overall perspective, then, “Kyrie, Gott Vater in Ewigkeit” disrupts only the listener’s harmonic expectations.

As before, one should resist the temptation to interpret the long initial prolongation of the VI-Stufe, Eb major, using the terminology and concepts of traditional modal theory. Since this piece is G-Phrygian, Eb is 6 and, therefore, the reciting tone of the mode (see chapter 1, section 1.1, example 1.1.1). The coincidence of Eb and the reciting tone, however, is purely descriptive, and it does not prescribe a pre-compositional requirement. Given the tonal activity of the foreground and middleground levels, one can find a more robust explanation for the initial prolongation of Eb major from this perspective. The third phrase of the chorale melody (mm. 19–22) clearly suggests F minor as the tonal centre; and from a tonal perspective, it is more logical to incorporate an extended tonicization of F minor into an Eb-major context than within G minor, the i-Stufe.
Finally, a joint consideration of the foreground and late middleground structural levels reveals that in this piece Bach has broken through the limitations of the genre to use individual pitches of the chorale melody as the anchors for prolongations that generate new material unrelated to the chorale melody itself. In its interludes, “Kyrie, Gott Vater in Ewigkeit” exhibits the precise behaviour that Schenker attributes to the chorale fantasy alone. For example, consider the interlude in mm. 8–11 (example 4.2.3-Part 1): after the music reaches D5 in m. 7 ending the first phrase of the chorale, this D5 is prolonged throughout the interlude by a descending-fifth linear progression, D5–C4–B\(^\flat\)4–A\(^\flat\)4–G4, over a cadential harmonic progression, i–III–V–i, tonicizing G minor locally as the key of iii within the initial prolongation of E\(^\flat\) major in mm. 1–15. The other three interludes in the music behave in the same way: they each prolong the final pitch of the relevant chorale phrase with either a linear progression or—in the case of the interlude continuing the F-minor span in mm. 23–25—a combination of other voice-leading transformations, such as consonant skips and neighbour tones. The material within these interludes, of course, is not entirely unrelated to the surrounding music since it contains the fugal motive mentioned above; but, importantly, the linear progressions in the highest voice do not belong to the chorale melody, and this is a critical difference between this chorale prelude and the other two I have presented so far. The chorale melody here genuinely produces new melodic material and composes-out *Stufen*.\(^{41}\) The interludes, then, emerge as important structural elements of this music, and they cannot be viewed as inessential or parenthetical insertions, as Schenker suggests (2005, 127).

\(^{41}\) To be sure, the prolongations and the material generated within them are rudimentary when compared, for example, to the chorale fantasy opening the *St. Matthew Passion*; but this difference does not change the fact that these pieces use the same compositional procedure.
The middleground musical structure truly crosses through the spans of the interludes to prolong the chorale melody.

*Lob sei dem allmächtigen Gott*

Returning to the *Orgelbüchlein*, example 4.2.4 presents an analysis of “Lob sei dem allmächtigen Gott,” BWV 602. The chorale melody is Phrygian, and it is an adaptation of the Gregorian hymn *Creator Alme Siderum* (Blessed Creator of the Stars). In the same declamatory style of “Nun komm, der Heiden Heiland,” Bach creates a textural distinction between the chorale melody in the top voice and the accompaniment in the lower voices, but he does not embellish the chorale melody in any way.

This chorale prelude falls under the third, and final, Phrygian background model (example 4.1.3b-3). Like “Kyrie, Gott Vater in Ewigkeit,” the majority of the music tonally prolongs the VI-Stufe, the F-major triad in this case, which harmonizes 3 of the Urlinie. The same caveat holds here concerning the attempt to interpret the prolongation of F major as somehow connected to the reciting tone of the Phrygian mode. Pursuing the relevance of the terms and concepts of traditional modal theory for a moment, this chorale prelude illustrates in a more emphatic way the shortcomings of this approach. In the first two measures of the music, Bach chromatically alters the diatonic B♭4 of the A-Phrygian mode to B♮4. While it is difficult to reconcile this chromaticism with traditional modal theory (Renwick 1997, 263), the Schenkerian perspective easily and uncontroversially interprets the B♮s under the rubric of tonicization.42

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42 In a related point, I previously discussed (see chapter 1, section 1.2) Schenker’s assertion in *Harmony* (1954, 59–69) that the modal inflections in music by Beethoven, Brahms, and Chopin are merely instances of tonicization and modal mixture. For more discussion of this issue, see Brown 2005, 140–70.
Example 4.2.4. “Lob sei dem allmächtigen Gott,” BWV 602
As the middleground reveals most clearly, the point when the listener experiences an aural shift away from tonality occurs as the v°\textsuperscript{6}-\textit{Stufe} appears and harmonizes $\flat 5$.

Locally, this triad sounds most like ii°\textsuperscript{6} in the key of D minor: when this triad combines with the A-major seventh chord in m. 8 and the D minor triad in m. 9, the listener could perceive a tonicization, i.e., ii°\textsuperscript{6}–V\textsuperscript{7}–i in D minor. Again, Bach has mitigated the disruptive effect of the modal background’s late intrusion into the structure by couching it within a local tonal progression at the foreground.\footnote{One might also perceive the v°\textsuperscript{6}-\textit{Stufe} in m. 7 as vii°\textsuperscript{6} in F major, the apparent key of most of the music. No matter which local tonal interpretation seems most salient, however, the music in mm. 7–8 clearly illustrates the essential tension that results from the coincidence and collision of the modal behaviour of the background and the tonal behaviour of the foreground.}

The v°\textsuperscript{6}-\textit{Stufe} at the background presents an interesting test case in that it reveals the extent to which Bach successfully blends modal and tonal language in this repertoire. Consider, first of all, that the diminished triad is normally unavailable from the strict contrapuntal perspective of traditional modal theory. Once again, this illustrates the inability of traditional modal theory to account for Bach’s modal compositional practice. At the same time, however, Bach’s treatment of this triad is not normative from a tonal perspective either: the diminished-fifth $\flat 4–E4$ in the upper two voices does not contract into a third as expected, but it expands onto the sixth $A4–C\#4$ in the same voices of the final I-\textit{Stufe}.\footnote{Of course, this voice-leading problem occurs only in the background: the foreground avoids it by switching the intervals around through the combination of a voice exchange and a change of inversion.} Tonality alone is also incapable of explaining Bach’s musical language here: only a blend of both perspectives will suffice. Indeed, tonality and modality truly seem to collide in this one triad, the exact moment when the stable F major of the first seven measures dissolves with no hope of returning. Bach has found a remarkable way to
incorporate and reinterpret the older modality of the melody within a newer
compositional environment irrevocably imbued with tonality.

*Komm, Gott Schöpfer, heiliger Geist*

Finally, example 4.2.5 presents an analysis of “Komm, Gott Schöpfer, heiliger Geist,” BWV 631, from the *Orgelbüchlein*. The chorale melody is Mixolydian, and it is an adaptation of the Gregorian hymn invoking the Holy Spirit *Veni Creator Spiritus* (Come Creator Spirit). For ease of comparison and layout, the analysis is divided into two parts: part one (one page) presents the foreground and a late middleground level; part two (one page) reproduces the late middleground and adds an earlier middleground and the background.

As the analysis shows, this chorale prelude conforms to the Mixolydian background model (example 4.1.3c-1), in which 2 of the Urlinie is harmonized with the minor v-*Stufe*. Like the Aeolian background of “Nun komm, der Heiden Heiland,” this Mixolydian background strongly resembles a tonal background as only the quality of the v-*Stufe* differentiates them. Locally, this D-minor v-*Stufe* appears to the listener as a predominant ii-chord in the harmonic progression ii\(^7\)–V\(^7\)–I in C major, occurring in mm. 7–8. The background modality, however, reveals that the G-major triad instead is the I-*Stufe*, and the move to C major is the familiar cadential elaboration that Bach invariably employs in his modal chorale preludes.\(^{46}\)

\(^{45}\) Other chorales that exhibit this background model include *Gelobet seist du, Jesu Christ*, BWV 722, and *Liebster Jesu, wir sind hier*, BWV 730, as discussed in the introduction to the dissertation. These chorale preludes are not part of a larger collection, but they are individually transmitted.

\(^{46}\) At the risk of assuming more than is warranted, one wonders whether Bach’s consistent use of the elaborated final cadence is his intentional means of softening the aural disruption of the modality intruding upon the tonality of the foreground and middleground.
Example 4.2.5. “Komm, Gott Schöpfer, heiliger Geist,” BWV 631-Part 1
The listener’s perception of a C-major tonal centre at the end is reinforced by the fact that the chorale prelude spends the majority of its length, as the middleground levels show most clearly, prolonging the C-major triad, the IV-\textit{Stufe}, and C5, \( \hat{4} \), as an upper neighbour to the \textit{Kopfton}, \( \hat{3} \). With this feature, the setting exhibits the same conflict between musical structure and design that we observe in the Phrygian chorale “Ach Herr, mich armen Sünder.”\(^{47}\) This shared attribute reinforces that such a conflict is not a distinctly modal event, and it should not be interpreted as such regardless of any coincidence with traditional modal theory. The Mixolydian and Phrygian modes—and indeed, every mode—are entirely distinct and cannot share essential structural elements. Unlike tonality, modality must always be qualified by a particular case. Phrygian modality is distinct from Mixolydian modality, etc. Therefore, the common prolongation of \( \hat{4} \) between these modes indicates that this structural event exists apart from any particular modality.

The lengthy prolongations of \( \hat{4} \) in these pieces are no doubt due to the respective shapes of the chorale melodies themselves and how Bach has chosen to treat them. In the case of “Komm, Gott Schöpfer, heiliger Geist,” we can understand Bach’s choice of the C-major in the foreground by observing that the Mixolydian scale, from a tonal point of view, naturally tonicizes the subdominant since its seventh degree lies a whole-tone below the final. When we combine this insight with our guiding theoretical framework

\(^{47}\) This is another point of difference between my perspective and Lori Burns’s. In some Mixolydian-mode pieces, Burns (1995, 60) allows the possibility of an \textit{Urlinie} beginning with \( \hat{4} \) (see chapter 2, section 2.2, and example 2.2.1). Given the requirement that a Schenkerian \textit{Urlinie} must unfold a triad, Burns’s model is essentially incompatible with Schenkerian theory.
that asserts tonal behaviour at the foreground and middleground levels, Bach’s setting follows almost inevitably.

**Conclusion**

This chapter has demonstrated the practical application of the theoretical framework that I have proposed. It offers a Schenkerian perspective of Bach’s modal compositional practice in the chorale preludes for solo organ as represented by five examples covering each of the three modal categories I identify for this repertoire. The chorale preludes as a group form a representative standard of Bach’s various compositional approaches and techniques in this genre throughout his lifetime. Furthermore, they each present the chorale melody in the highest voice: my work does not directly address those chorale preludes in which the chorale melody is in an inner voice or the bass voice.

Beyond the individual analyses, this chapter also highlights several key features of Bach’s modal compositional practice in general. The most distinctive and consequential of these is the incongruity between structural levels that we observe in this music: the foreground and middleground levels behave differently than the background. Whereas the listener can certainly perceive this tension, the Schenkerian perspective I have adopted clearly reveals it. In this framework, the foreground and middleground conform to normative tonal procedure—as expressed by Brown’s local laws of tonal voice leading and harmonic progression—while the background has no such restrictions. Instead, the *Urlinie* and its harmonization are formed according to Bach’s particular
compositional choices. The incongruity between structural levels, anticipated in Schenker’s commentary on modal composition, remains perhaps the definitive feature of Bach’s modal compositional practice.

Most importantly, however, I have offered in this chapter a definition of Bach’s modal compositional practice understood from the Schenkerian perspective. The definition is a behaviouralist one and is expressed in several elements. The first of these is the musical content of the background summarized in the seven models I have provided in example 4.1.3. Indeed, an accurate answer to the question of what Phrygian modality, for example, means for Bach, or how Bach’s music is Phrygian, must first invoke the musical behaviour shown in the Phrygian background patterns that he employs. Indeed, the modal backgrounds truly explain Bach’s modal compositional practice in a way analogous to how Schenkerian theory explains tonality through the *Ursatz*. The simple *Urlinie*-cum-harmonization answers why Bach’s modal music behaves as it does since it is the structural foundation that is successively elaborated to achieve the patterns at the foreground. Naturally, these background models do not exhaust the explanation: we must coordinate them with Schenker’s voice-leading transformations and the idea of the harmonic prolongation of *Stufen*. But these elements simply add to the overall picture. In the end, we can say that Bach’s modal compositional practice is defined by the behaviour of the modal backgrounds as I have shown them.

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48 This relationship is analogous since the modal backgrounds I define are not prototypes like the *Ursatz*: one background does not cover all modal compositions. The nature of the explanation, therefore, is less robust. The modal backgrounds explain individual pieces or groups of pieces instead of modality as a generalized concept applicable across an entire corpus of music.

49 Since the backgrounds are not prototypes, they cannot be expressed as a set of global laws like the *Ursatz*. 
the tonal behaviour of the middleground and foreground as expressed in Brown’s local 
laws, and the resultant incongruity between the structural levels.

In my work, I have endeavoured to understand Bach’s modal compositional 
practice without relying on an a priori definition of modality or the terminology and 
concepts of traditional modal theory. I believe that this chapter demonstrates not only the 
viability of this outlook but also the advantages that are gained by it. By adopting a 
Schenkerian perspective and allowing Bach’s music to speak through it, we can 
circumvent contextual problems—such as chromaticism, the difference between plagal 
and authentic modal divisions, etc.—that would normally plague an analysis of this 
repertoire. Beyond avoiding such difficulties, however, rejecting traditional modal theory 
in favour of Schenkerian theory simply offers a more accurate and fruitful understanding 
of Bach’s music. For example, from the perspective of traditional modal theory, one 
could not arrive at the conclusion that Bach usually makes no meaningful distinction 
between the Dorian and Aeolian modes in his chorale preludes. In the end, Schenkerian 
theory offers us more insight into this repertoire than traditional modal theory could ever 
afford.
Chapter 5: Conclusions

In this dissertation, I have developed a Schenkerian interpretation of Bach’s modal compositional practice in the chorale preludes for solo organ. Unlike other work in this area,¹ I have not altered Schenkerian theory to achieve a reconciliation with Bach’s non-tonal music; rather, reflecting upon its epistemological structure (Pastille 1990a, 1990b; Brown 2005, 1998) and its expression in Der Tonwille,² I have defined a space within Schenkerian theory that can accommodate the kind of musical language and compositional technique that Bach employs in his modal chorale preludes. To date, the most common paradigm guiding a Schenkerian interpretation of Bach’s modal music has been expressed as a dichotomy: either one abandons those elements of Schenkerian theory that conflict with the features of modal compositions; or, one misrepresents modal music by forcing it into the Procrustean bed of Schenkerian theory and aesthetic ideology (Neumeyer and Tepping 1992, 112–13; Burns 1995, 39–40). While this dichotomy is certainly pertinent to some, if not most, pre-tonal repertoire, my work demonstrates that it does not hold for Bach’s modal compositional practice.

2 One might contend that my study is not fully Schenkerian since I invoke the early perspective of Der Tonwille (2004–2005) instead of the final formulation of the theory in Free Composition (1979). I do not believe, however, that this is the case. The difference between Schenker’s early work and its mature expression in Free Composition is, to my mind, one of expression and development rather than substance. The concepts of Der Tonwille do not change in later publications, but they are elevated and their implications are realized more fully. For example, the idea of the Ursatz develops from Schenker’s realizations that the Urlinie, first described systematically in Der Tonwille, can be expressed as a single type (a stepwise descent from 3, 5, or 8) and is paired consistently with an identical bass harmonization. The concept of the Urlinie is the same, but its expression differs. See Pastille 1990a. In this regard, it is interesting to note that Bach’s modal compositional practice should be susceptible to explanation using the Urlinie concept from Der Tonwille. Just as the Urlinie in this context is still in development but contains the essence of what it becomes later on, Bach’s modal music exemplifies the last possible point where a musical language can incorporate tonal techniques without fully transitioning between systems.
A significant advantage of the approach I have taken is the ability to define modality contextually as a set of specific musical behaviours instead of relying on the taxonomic and pre-analytical terminologies and concepts of traditional modal theory. In other words, we may define modality for Bach’s music by allowing the musical behaviour itself to reveal how it is modal. In the chorale preludes, Bach’s modal compositional practice is defined by these features: the non-tonal musical content of the background models listed in example 4.1.3; the tonal behaviour of the middleground and foreground; and the incongruity between structural levels that occurs as a result. This behaviouralist definition of modality is analogous to the idea of tonality as a particular kind of musical activity, which I have endorsed in the dissertation as well (see chapter 3, section 3.3). The relationship between these definitions is not exact since, unlike tonality, my understanding of Bach’s modal compositional practice does not include the globally structuring influence of a prototype; and as a result, modal musical behaviour under this paradigm is contextual, not universal. Naturally, one important consequence of this contextual definition of modality is its current limitation to Bach’s modal compositional practice: without extensive analytical investigation, one cannot say whether or not another composer’s music operates in the same manner as Bach’s. This avenue of investigation, however, remains open and is a logical extension of my own work.

Exclusions and Possibilities for Future Research

As I qualified in chapter 4 (section 4.1), I have restricted my study to those modal chorale preludes that present the chorale melody in the highest voice. Nevertheless, we
do find many chorale preludes that contain the chorale melody in an inner voice or the bass voice. The background models I catalogue (see example 4.1.3), therefore, should not be considered an exhaustive representation of Bach’s modal compositional practice in the chorale preludes as a whole. In fact, evidence suggests that chorale preludes of these kinds behave differently in the harmonic dimension than the models I have defined.

For example, consider the final cadence, mm. 58–61, of “Christe, aller Welt Trost,” BWV 670, from *Klavierübung III*, reproduced in example 5.1. In the Kyrie trio opening *Klavierübung III*, this piece follows “Kyrie, Gott Vater in Ewigkeit,” BWV 669 (example 4.2.3), and it contains the Phrygian chorale melody in the tenor voice.

**Example 5.1. “Christe, aller Welt Trost,” BWV 670, mm. 58–61**

*(Bach-Gesellschaft, vol. III, 189)*

Here, the penultimate chorale note, Ab3 in the tenor of m. 59, is harmonized with a root-position F-minor triad, as it is in the first Kyrie. As G3 arrives, a G-major triad first supports it (again, like the Kyrie); but then, G-major gives way to the C-major triad in m. 61, ending the passage.

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3 Bach sets all three of the verses of the Kyrie (Zahn 1963, no. 8600a–d)
4 In another correspondence with “Kyrie, Gott Vater in Ewigkeit,” B♭3, 3, is harmonized with the E♭-major triad during the music preceding this excerpt.
Even though this final cadence of “Christe, aller Welt Trost” shares some features with “Kyrie, Gott Vater in Ewigkeit,” the C-major ending is sufficiently different to raise questions about its compatibility with my interpretive framework. In the first place, one wonders whether this harmonic progression might constitute a new Phrygian modal background pattern ending on the IV-Stufe, i.e., VI–vii–I–IV (cf., example 4.1.3b-2). In the chorale preludes I have considered, however, there is no allowance for a final sonority besides the i- or I-Stufe harmonizing 1. In principle, my theoretical framework permits an ending on an alternate Stufe, but it does not at present account for this option.

Alternatively, one might choose to view “Christe, aller Welt Trost” as a tonal piece in C minor and interpret the long initial prolongation of Eb major as the beginning of an auxiliary progression encompassing the whole piece, i.e., III–iv–V–I in C minor (see Schenker 1979, §§244–45, fig. 110; chapter 2, section 2.3). Under this interpretation, however, we could not maintain that the chorale melody provides the Urlinie, since it ends on 5, G3. Again, my theoretical framework presumes that the chorale melody constitutes the Urlinie. Regardless of modality or tonality, this is another area of incompatibility between the approach I present in this study and chorale preludes that do not contain the chorale melody in the highest voice: it is not immediately clear that these pieces are fully amenable to the Schenkerian perspective. If one treats the chorale melody as an inner voice beneath the Urlinie, I believe that one runs the risk of misrepresenting the structural basis of the music in the chorale melody; but at the same time, while it is certainly not impossible, it seems to stretch artificially the spirit of the Schenkerian perspective to place the Urlinie below a covering voice for the entirety of the
composition. Of course, this problem becomes even more acute when we consider
chorale preludes that have the chorale melody in the bass. While accounting for such
pieces is perhaps not absolutely incompatible with the Schenkerian perspective, much
additional work is needed beyond my own study in order to determine how best to
approach them.

Putting the issue of the interaction of the Urlinie and the chorale melody aside for
the moment, one should acknowledge that chorale preludes with the chorale melody in an
inner voice or the bass do not always exhibit significantly different harmonic patterns, as
does “Christe, aller Welt Trost.” For example, consider “Christum wir sollen loben
schon,” BWV 611, from the Orgelbüchlein. This piece is best interpreted as E-Phrygian,
and the chorale melody is in the alto voice. Example 5.2 below reproduces the final three
measures:

Example 5.2. “Christum wir sollen loben schon,” BWV 611, mm. 13–15
(Bach-Gesellschaft, vol. XXV, 15)

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5 For the sake of consistency, refer to “Kyrie, Gott heiliger Geist,” BWV 671, the third and final
chorale prelude in the Kyrie trio opening Klavierübung III, as an example of this technique. Besides the
problem of determining the Urlinie, this chorale prelude could possibly conform to the Phrygian
background model in example 4.1.3b-2, as does “Kyrie, Gott Vater in Ewigkeit.” Incidentally, “Kyrie, Gott
heiliger Geist,” is an astonishing example of Bach’s extraordinary capability to incorporate the fully
chromatic language of tonality within a globally modal context.
Here we see a motion identical to the Phrygian background in example 4.1.3b-2, i.e., VI–vii–I harmonizing the G4–F₄–E₄ descent of the Phrygian chorale melody in the alto in mm. 13–14. Similarly, “Aus tiefer Not schrei ich zu dir,” BWV 686, from *Klavierübung III*, presents the chorale melody in the tenor range, and it shows an overall harmonic motion of i–v⁰–I in E-Phrygian. Clearly, this background harmony is easily compared to those shown in examples 4.1.3b-1 and -3. Despite their obvious relationship to my theoretical framework, however, these chorale preludes still present the problem of determining the *Urlinie*.

In my study, I have not explicitly addressed those chorale preludes that set chorale melodies with irregular endings, i.e., a concluding note that is not the modal final. Notwithstanding the problems of modal identity that arise from the perspective of traditional modal theory, I have not mentioned them here since I believe that Bach’s chorale preludes of this type are all tonal settings according to the Schenkerian perspective I have adopted. As a representative example, consider “Durch Adams Fall ist ganz verderbt,” BWV 637, from the *Orgelbüchlein*. The chorale melody (traditionally considered Dorian with an ending on the fifth of the mode) and Bach’s setting emphasize D minor for the majority of the music, but the piece ends with an authentic cadence in the key of A minor, with A₄ in the highest voice. Viewed from a Schenkerian perspective, the prolonged D-minor harmonies support D₅ as an upper neighbour to the *Kopfton*, C₅, in

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6 The initial E-minor i-*Stufe* is established from the beginning of the music. The harmonic succession v⁰–I harmonizing the last two pitches of the chorale melody, F₃–E₃, in the second pedal part occurs in mm. 50–51.

7 I believe, however, that this chorale prelude is best analyzed with ⁵ as the *Kopfton*.

8 For a discussion of irregular modal endings, see Burns 1994, 43–55.

9 Bach wrote two other organ settings of this chorale, i.e., BWV 705 and 1101. These settings follow the same procedure as BWV 637. Burns (1994, 68–73) offers both Dorian and Aeolian interpretations of Bach’s SATB harmonization of this chorale melody.
the key of A minor.\textsuperscript{10} Nothing about this music is uniquely modal, even though the relative absence of tonic harmony may be somewhat atypical.\textsuperscript{11} This tonal interpretation of chorale preludes with irregular endings is another instance of the way in which the Schenkerian perspective transcends traditional modal theory to great advantage.

Since I have limited my research to the chorale preludes for organ, the background models I have identified (see example 4.1.3) are not intended to apply to chorale settings in other genres, e.g., the SATB harmonizations and the cantatas. In principle, my theoretical framework can accommodate these settings; but further analytical work needs to be done in order to discover how they behave. Indeed, one should not simply assume that, for example, the modal SATB harmonizations necessarily conform to one of the background models I identify for the chorale preludes.

Consider the SATB setting of *Komm, Gott Schöpfer, heiliger Geist* (Bach 1941, no. 187), reproduced in example 5.3 below. This setting appears at first like it may conform to the Mixolydian background in example 4.1.3c-1. However, the harmonization of 2, A4 in the penultimate measure, seems to deviate from that pattern: instead of a D-minor triad, the minor v*-Stufe*, supporting 2, we see an F-major triad, the major VII*-Stufe* in first inversion.

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\textsuperscript{10} In this chorale prelude, I believe that the *Kopfton* is achieved for the first time with the arrival of C5 in m. 4.

\textsuperscript{11} These chorale preludes are additional examples of the same type as “Durch Adams Fall”: “Herr Gott, nun schleuß den Himmel auf,” BWV 1092 (*Neumeister*) and 617 (*Orgelbüchlein*); and “Heut triumphiert Gottes Sohn,” BWV 630 (*Orgelbüchlein*). The chorale prelude “Christ unser Herr zum Jordan kam,” BWV 684 (*Klavierübung III*) is identical to the above except the chorale melody is in the bass.
In the terms my theoretical framework establishes, this inverted F-major triad creates several analytical problems. Since I regard the events in the last measure as an elaboration of the G-major triad and not an essential harmonic motion, I understand G2 to be conceptually present in the bass on the downbeat. The inverted F-major triad, then, cannot stand as it is in the score since it creates parallel voice leading with the soprano, i.e., A2–G2 in the bass against A4–G4 in the soprano. Three solutions to this difficulty present themselves: one can consider all of the harmonies in the last measure to be essential; one could analyze the inverted F-major triad as a foreground substitution for a root-position F-major triad in the background; or, the inverted F-major triad could be a contrapuntal elaboration of the root-position D-minor triad directly preceding it. I believe, in this case, that the second of these options is the most accurate; but arguments could be made for all three perspectives. Only the third option is compatible with the Mixolydian background in example 4.1.3c-1. To be sure, we also find SATB harmonizations that conform to one of the background models I define. For example,

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12 The reader will recall that Lori Burns (1995, 48–49) regards the kind of activity observed in the last measure of the music as frequently essential to the Mixolydian mode (see chapter 2, section 2.2, example 2.2.3).
Kyrie, Gott Vater in Ewigkeit (Bach 1941, no. 132) is based on the Phrygian background in example 4.1.3b-1. In any event, it is clear that further work is needed to determine how modal chorales in this genre behave when interpreted from the Schenkerian perspective I have adopted.

Finally, beyond the potential for additional work with Bach’s modal chorale settings and possibly those of other composers, my study carries some implications for the practice of Schenkerian theory. In this regard, I wish only to emphasize again what one must ultimately give up from Schenkerian theory in order to produce the view of Bach’s modal compositional practice that I have. Specifically, this is the complete, organic interaction of each structural level of music. This characteristic of music, which Matthew Brown describes as recursive and rule preserving, is guaranteed by the presence of a prototype:

In very general terms, a musical system is recursive if it posits certain starting states, such as a prototypical harmonic progression, and derives more complex states, or progressions, by repeatedly applying a given set of transformations. This system is also rule preserving if every derived state or progression conforms to the same underlying laws of voice leading and harmony as the prototype. (Brown 2005, 70)

Of course, tonal composition, from the Schenkerian perspective, is the epitome of such a musical system.

Since I do not identify a prototype for Bach’s modal compositional practice, I do not argue for a complete coherence between its structural levels: in fact, I have argued that a disjunction between the modal background on one hand and the tonal middleground and foreground on the other is a definitive feature of Bach’s modal music. In the end, I believe that more potential exists for expanding the purview of Schenkerian
theory beyond its tonal borders if we adopt a more flexible attitude toward Schenker’s organic ideal.
Bibliography


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