

Recorded Performances as Text in the Music Theory Classroom

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College music theory instruction is increasingly scrutinized for its practicality and relevance. As music students face mounting pressure to compete, network, and self-promote in our globalized and electronic age, appetite for pure music-intellectual pursuits will inevitably abate. In this atmosphere, empathy between theory instructors and music students is increasingly at a premium. Against this backdrop, the present essay aims to bring performance and analysis into a closer symbiosis through its commitment to a utilitarian approach to music theory instruction. In recent decades, many scholarly writings have addressed the practical values of analysis to performers as well as the significance of listening to performances when doing analysis; the past few years have further witnessed a remarkable surge of interest in analyzing performance as a scholarly pursuit.¹ What is ostensibly missing from this substantial output, however, is a pragmatic synthesis of the two areas within a pedagogical context. By way of three case studies, I intend to outline a model of instruction that incorporates recorded performances as part of the “text” for music theory instruction. As such, recordings initiate and define discussions of theoretical concepts, which in turn formulate queries into fundamental and practical questions related to performance.

In the past three decades, writings that advocate the use of analysis as the rational foundation for making performance decisions have given us many insights into the value of analysis to performers. One particular model—championed by such prominent theorists as Eugene Narmour and Wallace Berry—directs the flow of information

¹ One of the most recognizable developments of the surging interest in studying musical performance is the establishment of AHRC Research Center for Musical Performance as Creative Practice. Its vision statement, projects, and conferences may be found on its website at <http://www.cmpcp.ac.uk/>. Other significant achievements in this subfield include a number of monographs and special issues of periodicals devoted to analyzing performance in recent years. For examples, see *Music Theory Online* 18/1 (April 2012) and selected essays in the same journal 11/1 (March 2005).

exclusively from analysis to performance;² its perceivably condescending presupposition that analysts always have the upper hand has since rendered the model obsolete. In response, other scholars have made a concerted effort to strike a more balanced partnership between the two camps. Representative writings of Janet Schmalfeldt, William Rothstein, Tim Howell, Norman Carey, Jonathan Dunsby, Joel Lester, Nicholas Cook, and John Rink have generated much momentum in that direction.³ While invaluable to our understanding of the complexities and nuances of the field, these writings have nonetheless offered little with regard to concrete methods of implementing theory instruction in the classroom that embodies the very principles they have so eloquently articulated. My agenda in this essay is therefore to construct from this pool of ideas a practical model of theory instruction that aims to encourage performers to take ownership of theoretical knowledge, and to integrate it with performance experiences and considerations into a

² Eugene Narmour, "On the Relationship of Analytical Theory to Performance and Interpretation," in *Explorations in Music, the Arts, and Ideas: Essays in Honor of Leonard B. Meyer*, ed. Ruth Solie and Eugene Narmour (Stuyvesant, NY: Pendragon Press, 1988), 317–340; and Wallace Berry, *Musical Structure and Performance* (New Haven, CT: Yale University Press, 1989).

³ See Janet Schmalfeldt, "On the Relation of Analysis to Performance: Beethoven's Bagatelles Op. 126, Nos. 2 and 5," *Journal of Music Theory* 29, no. 1 (1985): 1–31; Tim Howell, "Analysis and Performance: The Search for a Middleground," in *Companion to Contemporary Musical Thought*, Vol. 2, ed. John Paynter, et al (London: Routledge, 1992), 692–714; William Rothstein, "Analysis and the Act of Performance," in *The Practice of Performance: Studies in Musical Interpretation* (Cambridge: Cambridge University Press, 1995), 217–240; Jonathan Dunsby, "Guest Editorial: Performance and Analysis of Music," *Music Analysis* 8 (1989): 5–20; Joel Lester, "Performance and Analysis: Interaction and Interpretation," in *The Practice of Performance: Studies in Musical Interpretation* (Cambridge: Cambridge University Press, 1995), 197–216; Nicholas Cook, "Analysing Performance and Performing Analysis," in *Rethinking Music*, ed. Nicholas Cook and Mark Everest (Oxford: Oxford University Press, 1999), 239–261, and "Between Process and Product: Music and/as Performance," *Music Theory Online* 7, no. 2 (2001): 1–31; John Rink, "Analysis and (Or?) Performance," in *Musical Performance: A Guide to Understanding* (Cambridge: Cambridge University Press, 2002), 35–58; and Norman Carey, "An Improbable Intertwining: An Analysis of Schumann's Kreisleriana I and II, with Recommendations for Piano Practice," *Theory and Practice* 32 (2007): 19–50.

unified enterprise. To illustrate the wealth of opportunities for this synthesis, I will examine the use of three types of analysis practiced by theorists and performers to varying degrees: (1) hypermetrical; (2) harmonic-contrapuntal; and (3) formal. As it will become apparent, my approach is not systematic, nor do I believe that the integration I propose here is best systematized. Rather, the discussion aims to show that my model of instruction can be imagined and implemented in numerous ways, and that the precise manner of execution depends ultimately on the experience and creativity of the instructor. Still, for each of the three analytical approaches, my discussion offers the same basic blueprint adoptable into a wide variety of contexts. A lesson plan is presented to engage performers in making important interpretive decisions regarding tempo, expressive timing, articulation, dynamics, tone color, and phrasing. The lesson prompts the performer to find answers through an assortment of activities, including (but not limited to) evaluating recordings, studying the score, soliciting insights from other performers, discovering and defining target issues, and exploring analytical approaches that maximize the performer's involvement with the above elements. Attention is directed particularly to how the analytical process interacts with other activities and becomes assimilated into the whole preparation for a performance. Each case study thus demonstrates an unapologetically utilitarian approach to music analysis, in which recordings clarify and reinforce theoretical concepts while inspiring novel ideas for performance choices.

HYPERMETRICAL ANALYSIS

Although not explicitly notated on the score, hypermeter—succinctly defined as the organization of notated measures into larger metrical units—is nonetheless a palpable phenomenon that substantively interacts with our perception and cognition of many other musical parameters. The absence of explicit notation opens the door for many contending interpretations of hypermeter, and different readings may influence—consciously or subconsciously—the performer's decisions about such diverse matters as tempo, expressive timing, articulation, and dynamics.⁴ Hypermetric analysis is thus rife with performance implications.

⁴ For a classic discussion on the impact of hypermeter on musical performance, see Edward T. Cone, *Musical Form and Musical Performance* (New York: W.W. Norton, 1968).

4-bar hypermeter: 1 2 3 4 1 2 3
 2-bar hypermeter: 1 2 1 2 1 2 1

272

279

4 1 2 3 4 1 2 3 4
 2 1 2 1 2 1 2 1 2

Example 1. Beethoven, Symphony no. 1, IV: mm. 272-287: two-bar and four-bar hypermeters

While scholars have demonstrated many ways to introduce the notion of hypermeter to students,⁵ I will detail here a sample lesson plan that sets up the topic with a performance consideration. To begin, I direct students' attention to an important interpretive issue at the end of Beethoven's First Symphony in performances conducted by Arturo Toscanini, Joseph Krips, William Steinberg, and Zoltan Kocsis.⁶ A condensed score of the passage in question is shown in Example 1. The four conductors choose noticeably different tempi; more intriguing, however, are the various

⁵ For a recent music theory textbook that includes an informative discussion of hypermeter, see Miguel Roig-Francolí, *Harmony in Context*, 2nd ed. (New York: McGraw-Hill, 2011), Chapter 13. Ryan McClelland has also discussed how hypermeter may be taught through a specific repertoire in "Teaching Phrase Rhythm through Minuets from Haydn's String Quartets," *Journal of Music Theory Pedagogy* 20 (2006): 5-35.

⁶ Refer to the end of this paper for discographical information on all the recordings consulted.

approaches to expressive timing in last few measures: (1) Toscanini and Krips, lying at the extremes of tempi selection (Toscanini the fastest, Krips the slowest), employ absolutely no *ritard*; (2) Kocsis, whose tempo is almost as fast as Toscanini's, very subtly delays the last chord; and (3) Steinberg, choosing a more moderate tempo than Toscanini, most overtly slows down the end.

Following the comparison of these recordings, I ask students a seemingly irrelevant question: "What do you think is in the last measure on the score?" The list of answers usually ranges from the more expected—"C in several octaves," "C in unison," "root position I,"—to the more far-fetched—"I6," "I $\frac{1}{4}$," and even an occasional "vi" (which always gets a good laugh when I play it on the piano). Jaws drop when the truth is revealed: the score ends with a whole measure of rest! This curiosity, I suggest, is an important detail in Beethoven's compositional thought that tends to be glanced over when studying the piece.⁷ Why does Beethoven write a whole measure of rest at the end? How are performers supposed to perform it? And most importantly, what does it have to do with the issue of expressive timing at the end of the symphony, which was the main issue that emerged while listening to the four

⁷ A disclaimer about the authenticity of the last measure of rest is in order. Since it is generally believed that the autograph of the symphony has been lost, we must rely on the earliest published scores and parts, which have given contradictory evidences with regard to Beethoven's notation of the last measure of the symphony. An early edition published in London by Ciani and Sperati shows no extra measure of rest at the end of the score. This edition is called *Erstausgabe* in the digital archives of Beethoven-Haus Bonn. A different view, however, is given in George Grove's brief discussion of the history of the symphony, in which Grove claims that the symphony is first published in parts by Hoffmeister and Kühnel in Leipzig toward the end of 1801. These parts are labeled *Titelauflage* in the digital archives of Beethoven-Haus Bonn, and in them the measure of rest can be found in all the different instruments. Since no dates have been given for either of these publications, it may be difficult to ascertain their chronology, and which version best represents Beethoven's compositional idea. Still, it is safe to say that the measure of rest is clearly not a later nineteenth-century editorial maneuver, and is unlikely an arbitrary modification against Beethoven's will, given its very early appearance in the history of the symphony. For Grove's discussion, see his *Beethoven and His Nine Symphonies* (London: Novello and Company Ltd., 1896): 2–3; relevant documents in the digital archive of Beethoven-Haus Bonn can be accessed via <http://www.beethoven-haus-bonn.de/>.

recordings? Quite often, students are able to observe that the rest in the last measure may have to do with the completion of a multi-measure construction; a few may even comment that it completes an eight-bar “phrase” that begins in m. 280. But what is it that compels Beethoven to write an eight-bar construction at the end? What is aesthetically unsatisfactory about a seven-bar construction here? In other words, why is the perception of an eight-bar construction important to the closure of the piece? And how may answers to these questions be pertinent to the issue of expressive timing?

Herein lies the pivotal opportunity to introduce the notion of hypermeter. In this whole passage, measures are grouped together not just into phrases and subphrases, but also into larger metrical units that function analogously to the notated measures. A simple conducting exercise of mm. 272–287 will help students experience the four-bar hypermeter of the passage, as annotated in Example 1.⁸ Most significantly, this realization sheds light on the function of the last measure: it completes the last four-bar hypermeasure of the piece, and thus provides rhythmic closure to the movement (and the entire symphony).

This important consideration brings us back to the differences among the recordings. The fast and strict tempo of Toscanini makes it lucid that the last sonic event in the penultimate measure is not the end of the piece; rather, the definitive conclusion materializes some time during the “silence.” As the four-bar hypermeter of the passage also comes across the most strongly at this tempo, listeners’ entrainment to the hypermeter induces a strong anticipation of the last hyperbeat.⁹ From this perspective, Toscanini’s expressive timing

⁸ This conducting exercise needs to be set up carefully, as the preceding passage beginning in m. 248 is hypermetrically ambiguous. Since the convergence of the whole orchestra in m. 272 on the C, marked *sf*, provides a moment of clear hypermetrical anchor, I would start the recording slightly before m. 272, and ask students to begin conducting the hypermeter once they hear a clear downbeat. Recently, John Paul Ito discusses the importance of conducting to experiencing the hypermeter of a passage. See Ito, “Hypermetrical Schemas, Metrical Orientation, and Cognitive-Linguistic Paradigms,” *Journal of Music Theory* 57, no. 1 (2012): 47–85.

⁹ The concept of musical entrainment appears frequently in music-perception research. For an informative summary of the concept’s significance and relevance to music theory, see Martin Clayton, “What is Entrainment? Definition and Applications in Musical Research,” *Empirical Musicology Review* 7/1–2 (2012): 49–56.

(or lack thereof) seems the most in line with the compositional idea underlying the notated rest in the last measure.

This is not to suggest that Toscanini's performance is the only "correct" one. As Lester and Cook would emphasize, the four-bar hypermeter in Example 1 is but one analytical interpretation of the passage. The critical question, then, is whether a different hypermetrical interpretation could emerge from a different performance. The answer seems to be yes—albeit a qualified one—from the recordings consulted. For instance, the drastically slower tempo in Krips' recording attenuates the immediacy of the quadruple hypermeter, positioning it instead at the more moderate two-measure level, as shown in Example 1.¹⁰ The point about the last notated measure, however, is unaffected: the two-bar hypermeasure at the end still requires the whole-measure rest for its completion, although the need does not seem to be as urgent as it is at Toscanini's tempo.

What this comparison divulges is that performances often directly affect our perception of the hypermeter, and that a *ritard* at the conclusion of the passage can be effectively executed when the amount of *ritard* is deliberated vis-à-vis the overall tempo. This principle, I believe, accounts for the success of all four recordings despite their radically different approaches to expressive timing and overall tempo. At a fast tempo, *ritard* before the last chord risks enervating the sense of rhythmic completion at the last hyperbeat. Toscanini refrains from using any *ritard* altogether, while Kocsis circumvents this potential problem with an extremely subtle delay, which, I suppose, helps emphasize tonal-rhetorical (as opposed to rhythmic) closure. From Steinberg's recording, we glean that a higher degree of *ritard* seems permissible at a slower tempo without affecting the integrity of the rhythmic closure. Finally, all these observations imply that when a relatively fast tempo is chosen for the movement, noticeable *ritard* before the last chord may intrude upon proper rhythmic trajectory at the end.

All these conclusions aside, the most important aspect of the above exercise is that performers are able to engage in a network of activities from which interpretive questions arise and choices are evaluated. In my presentation, listening to performances brings

¹⁰ See Justin London, *Hearing in Time: Psychological Aspects of Musical Meter* (Oxford: Oxford University Press, 2004), Chapter 2, for a discussion of the relationship between absolute tempo and the perception of various levels of (hyper)meter.

to awareness an important interpretive issue. Close study of the score highlights an idiosyncrasy, the connection between which and the interpretive issue at hand is gradually revealed through exploring the hypermeter and phrase structure of the passage. A careful reflection on the analysis in turn sheds light on the individual strengths and weaknesses of the performances, while the distinctive attributes of each performance compels us to refine our analysis and generate further conclusions. This conglomerate of activities need not be strictly replicated in other exercises; rather, the important point is the integrated nature of the whole exercise and its utility for performers within the context of music theory instruction.

HARMONIC-CONTRAPUNTAL ANALYSIS

In American collegiate music education, harmonic analysis using Roman numerals constitutes one of the central music-analytical activities. This dominance of Roman numeral analysis is of course due to its intrinsic efficacy in teaching and reinforcing harmonic-functional concepts. Yet, as many recent music theory textbooks have demonstrated, Roman numeral analysis must not only be an end in itself, but must also serve as a means to heighten attention to many other musical constructs.¹¹ One particularly fruitful use of Roman numeral analysis is the discovery of simple species contrapuntal structures in free compositions. Prone to be perceived by students as an abstract intellectual exercise (because of its rule-driven character), the study of species counterpoint is nevertheless pertinent to performance considerations in that it sensitizes musicians to the sound of “ensemble”—broadly defined as an interactive collaboration among multiple musical agents. In most musics, performers are routinely engaged in a network of communication with other individuals in myriad ways. In this

¹¹ In this regard, music theory textbooks that adopt a more linear approach to harmony instruction rightly put a premium on the interaction between harmony and counterpoint, and thereby sensitize students to significant connections between Roman numeral analysis and the contrapuntal aspects of harmonic progressions. For more recent examples of these texts, see Jane Piper Clendinning and Elizabeth Marvin, *The Musician's Guide to Theory and Analysis* (New York: Norton, 2004); Steven Laitz, *The Complete Musician: An Integrated Approach to Tonal Theory, Analysis, and Listening*, 3rd ed. (Oxford: Oxford University Press, 2011); and Miguel Roig-Francolí, *Harmony in Context* (2011).

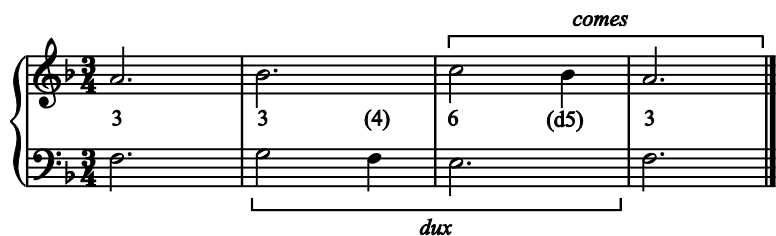
sense, counterpoint that exists even in a solo piece may also be imagined as an ensemble between two strands of musical utterance.

Three examples of various levels of complexity will demonstrate the reciprocal relationship between harmonic-contrapuntal analysis and performance considerations. Example 2(a) shows the first four measures of the Trio from Beethoven's Piano Sonata in F minor, op. 2, no. 1, second movement. The four-measure phrase is marked by a single slur in both hands, suggesting one legato articulation. The arc-like contour of the right hand (delineated by the rising A–B $\flat$ –C on the downbeats of the first three measures and the descent back to A in the last measure) suggests a subtle feeling of *crescendo* and *decrescendo*, while the lower line in the left hand may also swell toward the E on the downbeat of m. 3, which marks the lowest point of the line against the right-hand climax at the same location.

(a) Beethoven, Piano Sonata in F minor, op. 2 no. 1, III: opening of Trio



(b) Contrapuntal reduction of Example 2(a)



Example 2. Beethoven, Piano Sonata in F minor, op. 2 no. 1, III: opening of Trio

Contrary to these logical, albeit pedestrian implications, both Arthur Schnabel and Paul Badura-Skoda perform the opening of the left hand with noticeable *decrescendo* toward the D, resuming then a more solid articulation on the G in m. 2. This creates a very subtle emphasis on the second beat of the measure, the syncopated nature of which seems to go against the seamless quality of the

phrase. What may be the rationale for this treatment by two of the most celebrated interpreters of Beethoven's piano works? One could perhaps point to the fact that the opening four notes move in one direction, while the G reverses the contour with the biggest leap of the entire line. But what is the significance of this contour design that it may have inspired a specific, and arguably idiosyncratic, performance decision?

A quick Roman numeral analysis of the passage immediately sheds light on these questions. As students realize that each measure receives only one Roman numeral (even without inversions changes despite the arpeggiated bass), they promptly realize that Roman numeral analysis is not a mechanical exercise of putting a number on each apparent harmony; rather, it must start with active interpretation of where the "chords" lie, and what exactly constitutes a change in harmony that warrants a change in the Roman numeral. At the tempo that the four-measure phrase is usually performed, there is minimal sense of a change from I to I⁶ and I⁴ in m. 1. In other words, only the F on the downbeat in the left hand belongs to the actual bass of the counterpoint, while the A and C on beats 2 and 3 serve only to prolong the root-position tonic chord. By the same reasoning, the entire underlying bass line is revealed to be a simple double-neighbor figure embellished by a passing tone, $\hat{1}-\hat{2}-(\hat{1})-\hat{7}-\hat{1}$. A parallel probing of the upper line uncovers another compound line comprising $\hat{3}-\hat{4}-\hat{5}-(\hat{4})-\hat{3}$ in first and second species counterpoint with the underlying bass.¹²

The resulting contrapuntal awareness sheds light into Schnabel's and Badura-Skoda's *decrescendo* toward the D in m. 2 and returning to the original articulation and dynamic at the G. Clearly, one objective of the *decrescendo* is to render as lucid as possible the structural connection between F and G, and subsequently the contour of the underlying bass line. Another important feature highlighted by this clarification is a hidden repetition of a linear descending gesture. As I show in Example 2(b), the G in the left hand in m. 2 initiates a descending third motion to E, which is then imitated in the top voice by the C-B $\flat$ -A descent in mm. 3-4. The heightening of the G in Schnabel's and Badura-Skoda's performances subtly energizes the intriguing rhythmic interplay between *dux* and *comes* in consecutive measures, which is otherwise very much concealed by surface diminutions of the passage.

¹² For a similar discussion of this passage, see Felix Salzer and Carl Schachter, *Counterpoint in Composition: the Study of Voice Leading* (New York: McGraw-Hill, 1969), 123.

(a)

Subject:

i iv V⁽⁴⁾ i⁶ iv⁶ — iv V⁷ i

T PD D T

(b)

i iv VII III VI ii[°] — V⁽⁶⁾⁷ i

T —————> PD D T

Example 3. Bach, Fugue from *Well-Tempered Clavier II*: Two imaginary harmonizations of the subject

Example 3 shows a more complex scenario, one that involves imaginary harmonizations of the subject of Bach's G-minor Fugue from *The Well-tempered Clavier II*.¹³ The first rendition in (a) realizes the prolongational potential of mm. 1–3, harmonizing both occurrences of D–B♭ (♂–♂) in m. 1 and m. 3 with the tonic triad. The neighboring harmonies in m. 2 connect these tonic chords contrapuntally in a schema that Steven Laitz calls the “embedded phrase model” (EPM).¹⁴ Following this EMP in mm. 1–3, the PD-D-T progression in mm. 4–5 then provides the cadence (i.e., an IAC) to complete Laitz's “phrase model.” In this approach, the two-part design of the subject is underscored by the harmonization, as the opening

¹³ The exercise of imagining a harmonization here is inspired by William Rothstein's concept of “imaginary continuo.” See his “Rhythmic Displacement and Rhythmic Normalization,” in *Trends in Schenkerian Research*, ed. Allen Cadwallader (New York: Schirmer, 1990), 87–113.

¹⁴ In his discussion of the overall phrase-harmonic structure, Laitz stipulates that the standard harmonic paradigm of T-PD-D-T across an entire musical phrase, which he calls the “phrase model,” may be elaborated by embedding the paradigm within the initial tonic (T) as a means of prolongation. See *The Complete Musician* (2011), Chapters 9 and 12 for discussions of the “phrase model” and the “embedded phrase model.”

arpeggiated motives and the ensuing repeated-note gesture are delineated separately by prolongational and progressional spans.¹⁵

Example 3(b) illustrates a different approach to harmonizing the subject. Rather than emphasizing the parallelism between mm. 1 and 3 (by harmonizing both instances of D–B♭ with the tonic), the transpositional relationship between mm. 2 and 3 motivates a sequential treatment of these measures. The zigzag contour of the underlying E♭–C–D–B♭ motion in the melody betrays a connection to the descending fifths sequence, which, as the example shows, may indeed be used to harmonize the entire subject. In this treatment, the continuous harmonic trajectory of a uniform progression helps conceal internal subdivisions of the subject, lending it a much more seamless quality than that in Example 3(a).

These contrasting harmonic conceptions and their formal implications are keenly felt in performances by Jenő Jandó and Sviatoslav Richter. The two pianists share some commonalities in their interpretations: both *crescendo* in mm. 4–5 toward the cadence, and both set up the *crescendo* by a preceding drop in dynamic level. They differ conspicuously, however, on the exact location of this drop. Jandó puts it on the last note of m. 3 (i.e., precisely at the beginning of the second part of the subject); Richter, however, places it two notes later at the second C in m. 4. The different formal implications are unmistakable. Jandó's softer beginning of the second part of the subject distinctly separates mm. 4–5 from mm. 1–3, thereby highlighting the two-part design of the subject much in the same manner as the harmonization in Example 3(a). In contrast, Richter's maintenance of the same dynamic level until the downbeat of m. 4 clarifies the contrapuntal connection between the repeated Cs in m. 4 and the underlying voice leading of mm. 1–3; hence, the overall D–E♭–D–C–B♭ (i.e., the $\hat{5}$ – $\hat{6}$ – $\hat{5}$ – $\hat{4}$ – $\hat{3}$ paradigm) in the top voice of the compound line is laid bare at the same dynamic level.¹⁶ The internal unity of the subject is thus much more tangible in this performance, just as the circle of fifths in Example 3(b) illumines the overall continuity of the subject despite the apparent division in m. 3.

¹⁵ For a summary of the different formal functions between prolongations and progressions, see William Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (Oxford: Oxford University Press, 1998), Chapter 2.

¹⁶ For an in-depth discussion of the standard voice-leading schemas in Baroque fugue subjects, see William Renwick, *Analyzing Fugues: A Schenkerian Approach* (Stuyvesant, NY: Pendragon Press, 1995).

Example 4. Bach, Fugue from *Well-Tempered Clavier II*: two Schenkerian interpretations

The differences between these performances inspire distinct but equally valid ways of analyzing the subject from a Schenkerian perspective. Jandó's treatment of mm. 1–3, more reflective of the “sectional” approach of Example 3(a), lends itself to the reading in Example 4(a). Here, the *Kopfton*¹⁷ D is elaborated in mm. 1–3 by the upper neighbor E $\flat$ and harmonized by a prolonged tonic; subsequently, the structural descent to the B $\flat$ occurs only in the second part of the subject in mm. 4–5. In the other interpretation in Example 4(b), the *Kopfton* receives no prolongation; rather, the upper neighbor E $\flat$ in m. 2 sets off a third-descent to the C in m. 4 over parallel thirds in the counterpoint. This alternative reading corresponds to Richter's performance in its attention to the structural significance of the C as the goal of a linear progression.¹⁸

¹⁷ In Schenkerian analysis, the *Kopfton* is the structural note from which the fundamental melodic line descends to the tonic at many different structural levels. For a clear explanation of this and other basic Schenkerian concepts of tonal structure, see Allen Cadwallader and David Gagné, *Analysis of Tonal Music: A Schenkerian Approach*, 3rd ed. (Oxford: Oxford University Press, 2010), Chapter 5.

¹⁸ Interested readers should consult Bach's harmonization of all subject entries to examine how both approaches in Example 3(a) and (b) are employed and synthesized. Of special interest is the subject-countersubject statement in mm. 28–32, which employs invertible counterpoint at the twelfth with the original statement in mm. 5–9. A close examination of this invertible counterpoint reveals an important linear connection on

Innig, lebhaft.

Du meine See - le, du mein Herz, du meine Wonn' - o du mein
 Schmerz, du meine Welt, in der ich le - be, mein Himmel du, da - rein ich schwe - be, o du mein
 Grab, in das hin - ab ich e - wig mei - nen Kum - mer gab! *ritard.*

Translation:

Du meine Seele, du mein Herz,	You my soul, you my heart,
Du meine Wonn', o du mein Schmerz,	You my bliss, o you my pain,
Du meine Welt, in der ich lebe,	You the world in which I live,
Mein Himmel du, da - rein ich schwebe,	You my heaven in which I float,
O du mein Grab, in das hinab	O you my grave, into which
Ich ewig meinen Kummer gab.	I eternally cast my grief.

Example 5. Schumann, *Widmung*, mm. 1–13

In the above illustrations, the cognitive distance between a Roman numeral analysis and evaluating a performance is exponentially reduced when the two are mediated through considerations of counterpoint. A further example will demonstrate the role of counterpoint in examining the relationship among musical structure, performance, and text. We shall consider here the first section of Schumann's *Widmung*, which is shown in Example 5. From a performance standpoint, the passage contains many provocative the downbeats of mm. 6–8, where the consecutive sixths are transformed into a chain of sevenths in mm. 29–31 that are assimilated into a chain of 9–8 suspensions. The linear connection in mm. 6–8 in turns point to a corresponding connection in mm. 2–4, which, as I have argued, can be discerned in Richter's performance.

elements: the large range of the vocal line presents various possibilities for *rubato* and dynamic shading, and the rich harmonic colors created by modal mixture invite further manipulation of timing and tone quality. The infatuation of a madman for his love, ingeniously portrayed by Schumann in one of the most beloved specimens of nineteenth-century German Lieder, incites intimate and personal readings of tempo, dynamics, timbre, and so forth.

Indeed, a cursory comparison of recordings reveals eclectic approaches to the performance of this excerpt. For instance, renditions by Elly Ameling and Elisabeth Schwarzkopf provide a telling comparison with regard to the use of *rubato*. Ameling's typifies expressive timing found also in many other recordings: slowing down through the descent on "o du mein Schmerz"; speeding up then in the ascent on "du meine Welt, in der ich lebe"; and a marked holding back again at "darein ich schwebe."¹⁹

Study the opening thirteen measures of Schumann's *Widmung* (from *Myrthen*, op. 25). Then, do the following tasks:

1. Part of the contrapuntal framework of the passage has been given below. Provide RN analysis below the bass line (one RN for each bass note).
2. On the upper staff, provide a first-species counterpoint against the bass. Your counterpoint should reflect the underlying structure of the vocal melody of the song. (The first structural melodic note has been given as E-flat in m. 2 in the framework.)
3. Between the staves, write down the intervals between the "cantus firmus" (i.e., the bass line) and your counterpoint.
4. Mark any instance of voice exchange in the framework.
5. Comment on the shapes of the individual lines and their contrapuntal relationship. Do they reflect any principles taught in species counterpoint? If so, which ones? Are there aspects of the framework that are inconsistent with principles of species counterpoint? If so, which ones?
6. Bonus: how do you think the properties of this contrapuntal framework (as you commented in questions #5 and #6) may be motivated by the meaning of the text?

Example 6(a). Roman-numeral and first-species reduction assignment on *Widmung*.

¹⁹ Interested readers may also consult recordings by Jessye Norman and Hermann Prey. Norman chooses tempo fluctuations that are very similar to Emeling's; Prey slows down "o du meine Schmerz" and speeds up "du meine Welt, in der ich lebe" but maintains a constant speed at "darein ich schwebe."

These tempo fluctuations make much musical sense both intuitively and analytically: the descent on “o du mein Schmerz” arrives at a pseudo-cadence in m. 5 on a ii half-diminished $\frac{5}{4}$ chord; the expressive change of tone color at the mixture harmony, where a V would have been more normative, is tenderly prepared and highlighted by the *ritard* toward “Schmerz.” The acceleration on “du meine Welt” effectively launches the sequential climb toward the climax on “schwebe,” while a *ritenuto* at the climatic G $\flat$ underlines the expressiveness of the chromatic pitch. In comparison, Schwarzkopf’s approach sounds stoic, as her much stricter tempo throughout the opening seems to negate these special poetic moments.

The musical score for Example 6(b) is presented in two systems. The first system contains measures 1 through 7, and the second system contains measures 8 through 14. The lyrics are written above the treble staff. Below the bass staff, Roman numerals indicate the harmonic structure, and numbers 1-6 indicate the first-species reduction assignment. Arrows show the voice leading between the treble and bass staves.

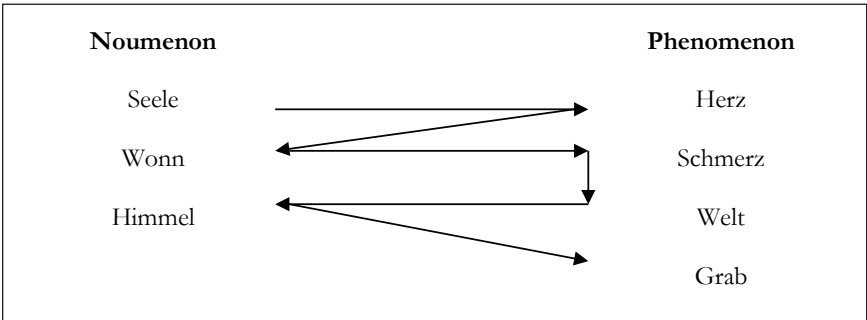
Measure	Lyrics	Roman Numeral	First-species Reduction
1	Seele	I	5
2	Herz	I	3
3	Wonn	I	3
4	Schmerz	IV	6
5	Schmerz	ii $\frac{5}{4}$	6
6	Welt	V $\frac{1}{2}$	3
7	Welt	I $\frac{6}{4}$	3
8	schwebe	V $\frac{1}{2}$	6
9	schwebe	I	3
10	Grab	IV	3
11	Grab	vii $\frac{5}{4}$	6
12	Grab	V $\frac{1}{2}$ /IV	3
13	Grab	IV	5
14	Grab	ii $\frac{5}{4}$	3
15	Grab	V $\frac{1}{2}$ = $\frac{5}{4}$	6
16	Grab	I	8

Example 6(b). Roman-numeral and first-species reduction assignment on *Widmung*: sample solution.

Yet, considerations of deeper contrapuntal aspects of the excerpt illumine Schwarzkopf’s minimal use of expressive timing. Example 6(a) shows a Roman numeral/reduction assignment that I have used in teaching this excerpt. Students are instructed to analyze the passage with Roman numerals, which will then serve as the basis for reducing the vocal line into a first-species counterpoint framework with the given bass line. The importance of the Roman numeral analysis, of course, is that it helps students extract the main melodic tones from the surface within the overall framework. A common response is shown in Example 6(b). In general, students are able to observe many traits that agree with first-species counterpoint

principles: the independent contours between the two lines, the occurrence of a single climax in each (at different locations), the use of perfect consonances at the extremities (to establish and confirm modality) and imperfect consonances in the middle of the passage (to promote forward motion).

Even more intriguing, however, is the apparent disjointedness of the top line in the framework. To be sure, the melodic surface of the passage removes the disjunction by filling in the leaps. This realization is especially telling in that it reverses the more common procedure by which surface disjunction in tonal music arises from elaborations (or diminutions) of a stepwise underlying structure. Why does Schumann’s tonal structure contradict the normative paradigm? To investigate this, I ask students to study the text and pick out the most important words of the passage. Clearly, the metaphorical objects—*Seele, Herz, Wohn, Schmerz, Welt, Himmel, and Grab*—provide the backbone for this section of the poem, as they encapsulate the sense of “everything-ness” that the protagonist ascribes to the loved one.



Example 7. The noumenon and phenomenon in mm. 1–13 of *Widmung*

As students juxtapose these metaphors with the musical framework, a fascinating analytical detail emerges: not only are all the metaphorical objects set to structural melodic tones in the framework, but their delineation of two conceptual categories, which encompass the “everything-ness” that the loved one embodies, motivates a compound conception of the melodic framework. Example 7 illustrates this idea. On the left column, *Seele, Wohn, and Himmel* are representative of what Immanuel Kant calls noumenon, while the right column, *Herz, Schmerz, Welt, and Grab*, belong to Kant’s category of phenomenon.²⁰ To Kant, these

²⁰ Roughly, phenomenon refers to the realm of reality that is available to sensory intuition and judgment—the appearance of things to the

two categories make up the entire cosmos, thus constituting the “everything-ness” that the text ascribes to the loved one. Musically, as we see in Example 6(b), the two categories are carefully divided in the melodic framework between two voice strands initiated by E♭ and C. These implied voices proceed in different directions—the E♭ moves up in the upper strand, which depicts the noumenon, while the C moves down in the lower strand, which represents the phenomenon. Significantly, the musical alternation between the two strands faithfully follows that between the poetic categories in the text: after the first two rounds of moving from “high” to “low,” the third round reverses the order and presents an ascending sequence as the text “floats” from *Welt* to *Himmel*. The descent to *Grab* results in a quick drop in register, and the framework then returns to the higher register to set up a complete descent of the structural top line to the tonic.

With this analytical finding, we hear Schwarzkopf’s performance in new light. The two voice strands—and thus the two metaphorical categories—are rendered in her performance audibly distinct in two ways: not only is the lower strand sung more restrained dynamically than the upper one, but it is also differentiated by Schwarzkopf’s darker and less open vowels on the words *Herz* and *Schmerz*. By the same token, the diction and articulation of *Welt* and *Grab* are similarly differentiated from words associated with the upper strand by their softer dynamic level and subdued tone. Her performance thus puts a premium on the Kantian dualism and its musical analogue, whereas Ameling’s approach is predicated on the melodic surface and harmonic colors of a monistic entity.

Similar to Jandó’s and Richter’s performances of Bach’s fugue, the disparities between Ameling and Schwarzkopf also have far-reaching ramifications for the analyst, as shown in the Schenkerian sketches in Example 8. Ameling’s opening, where the Cs on *Du* and *Herz* are relatively undifferentiated, encourages the reading of the C as the prolonged *Kopftone*—such as in Schmalfeldt’s analysis of

human mind; in contrast, the noumenon comprises reality in itself—the so-called *Ding an sich*—which is not available to the senses. To Kant, only the phenomenon can be known, while the noumenon remains inaccessible to human reasoning and perception. As in most classical metaphysics, the whole cosmos is divided by this binary opposition in Kantian philosophy.

$\hat{3}$ as *Kopftön*

A

Innig, lebhaft.

Du mei-ne See - le, du mein Herz, du mei-ne

Wonn', o du mein Schmerz, du mei-ne Welt in der ich

le - be, mein Him - mel du, dar - ein ich schwe - be, o du mein

Grab, in das hin - ab ich e - wig mei - nen Kum - mer

gab!

B *ritard.* **p** Du bist die Ruh', du bist der

PAC into $\flat VI$ (E):

Example 8 (a). Schumann, *Widmung*, mm. 1–13: Schmalfeldt's analysis (2011)

the passage shown in Example 8(a).²¹ Schwarzkopf's treatment, on the other hand, reveals the possibility of reading both Cs as subsumed under the E $\flat$ —the alternative choice for the *Kopft*on, as shown in Example 8(b)—with the first C originating from a lower structural level than the second one. In this exercise, comparison between two recordings again prompts students to ask specific performance questions that motivate and inform musical analysis. In turn, the analysis sheds light on the specific performance choices in the recordings, particular those that may appear less intuitive than others.

♯ as *Kopft*on (gleaned from Schwarzkopf's performance)

Example 8 (b). Schumann, *Widmung*, mm. 1–13: an alternative interpretation

²¹ Schmalfeldt, "Keynote Address, Twenty-Sixth Annual SMT Conference." *Music Theory Online* 10/1 (2004). The same analysis also appears in Schmalfeldt, *In the Process of Becoming: Analytic and Philosophical Perspectives on Form in Early Nineteenth-Century Music* (Oxford: Oxford University Press, 2011), 237.

FORM ANALYSIS

In many ways, analysis of musical form provides the most direct avenue for drawing connections with performance. For instance, many studies have shown that experienced performers tend to articulate important formal divisions (e.g., phrase boundaries) with *tenuto* or other rhetorical markers.²² I wish to contribute to this area a brief but revealing case, one that is worth inclusion here because of the intriguing tension that it engenders among the score, performance practice, and theoretical considerations.

Example 9 shows the end of the Primary-Theme zone and the beginning of the Transition zone in the first movement of Schubert's Symphony no. 5. Students study the score of the juncture between the two zones while listening to recordings conducted by Nikolas Harnoncourt, Lorin Maazel, Charles Mackerras, and Neville Marriner. The listening exercise quickly draws attention to a discrepancy between the first three performances and Schubert's notation: Harnoncourt, Maazel, and Mackerras all shorten the half-note A in m. 40 to a quarter note (or even shorter), thereby creating a gap between mm. 40 and 41. This treatment may have been motivated by the parallelism between mm. 33–36 and 37–40: the quarter note A in m. 36 is replicated in m. 40 in keeping with the parallel structure between the two units. In contrast, Marriner performs the full length of Schubert's half note in m. 40, thus connecting the Primary-Theme zone to the Transition zone in an unbroken fashion. In my survey of many other recordings, Marriner's faithful transmission of Schubert's half note represents but a small minority; most conductors disregard this notational detail and shorten the A in m. 40 to various degrees.

To examine ways in which these performance decisions may influence our understanding of the formal juncture, and vice versa, we shall explore the potential meanings of the half note in m. 40 in lieu of the parallel quarter note in m. 36. For this purpose, I instruct students to carefully investigate the half note in question within its proper formal context. The movement opens with the Primary

²² For examples, see W. Luke Windsor, and Eric F. Clarke, "Expressive Timing and Dynamics in Real and Artificial Musical Performances: Using an Algorithm as an Analytical Tool," *Music Perception* 15, no. 2 (1997): 127–152; and Sigrun Heinzelmann and Amy Hess, "Interpretation as Analysis: Sonata form in the first movement of Ravel's String Quartet," paper presented at the annual meeting of Music Theory Midwest, 2012.

21 P (restatement)

V ----- (vii⁰⁷/V) ----- (7) I V (6) IV⁶ p₄⁶

Hypermeter: 1 2 3 4 1 2 3

32 Tr

BRD BRD?

ii⁶ vii⁰⁴₃ I⁶ ii⁶ V₄⁶ = ⁵₃ vii⁰⁴₃ I⁶ ii⁶ V₄₋₃⁶⁻⁵ I

4 1 2 3 4 1 2 3 4 1

HC? PAC?

Example 9. Schubert, Symphony no. 5/I: mm. 21–42

Theme in mm. 1–24, which arrives at a half cadence in m. 19, followed by an extension of the cadential V in mm. 19–24. An ostensible restatement of the Primary Theme begins in m. 25, proceeding then to the cadential function in mm. 35–36 with what William Caplin calls an expanded cadential progression: I6–ii6–Cadential $\frac{5}{4}$ –V.²³ The arrival at V in m. 36, however, is obviously too flimsy to serve as the rhetorical goal of the entire Primary-Theme zone, considering that the first statement of the theme in mm. 1–24 ended previously with a six-measure prolongation of the V in mm. 19–24. Perhaps due to the rhetorical “failure” in m. 36, Schubert reiterates the approach in mm. 37–40 to solidify the cadential gesture.²⁴

Herein arises an ambiguity: does the expanded cadential gesture, and hence also the whole Primary-Theme zone, conclude with a half cadence in m. 40, just as the first statement of the Primary Theme concluded on an expanded V? Or does the expanded cadential gesture spill over to the downbeat of m. 41, ending with an elided PAC? The ambivalence between these two options in numerous analogous situations has long spawned theoretical debates.²⁵ Why should this ambiguity also matter to performers, and how does understanding this issue help us evaluate the four performances as well as the structure of the passage? As I ask students to carefully consider these questions in the context of the larger formal construction, some revealing answers emerge. To begin, the interpretation of m. 40 as a half cadence faces several difficulties. It subverts the periodic potential of the Primary-Theme zone, assuming instead that the entire zone comprises a pair of phrases that end inconclusively. As is well known, a pair of

²³ See William Caplin, “‘The ‘Expanded Cadential Progression’: A Category for the Analysis of Classical Form,” *Journal of Musicological Research* 7, no. 2–3 (1987): 215–57. Although one could also hear an impending PAC in the next measure, the expectation is questioned by the quarter-note duration of the A and the subsequent break in melodic continuity.

²⁴ The repeat of the cadential approach, however, involves not just the expanded cadential progression, but returns to the entire subphrase that begins in m. 31. I will elaborate on the significance of this later in the essay.

²⁵ For an engaging discussion on this issue, see L. Poundie Burstein, “Half, Full, or In Between? Distinguishing Half and Elided Authentic Cadences,” paper presented at the annual meeting of the Society for Music Theory, Indianapolis, 2010.

melodically parallel phrases generally conforms to the antecedent-consequent harmonic scheme, where the HC of the first phrase is followed by a PAC in the second phrase. Further, a Primary-Theme zone that concludes with a HC rarely proceeds to an “independent transition”—the type used in this movement at m. 40ff. As James Hepokoski and Warren Darcy describe in their *Sonata Theory*, an independent transition is “often ignited by P’s PAC in the tonic key” and is “often marked by a *tutti* affirmation (or forte affirmation), typically elided with the PAC that ends P.”²⁶ On the other hand, a Primary-Theme zone that closes with a HC most logically proceeds to a transition that commences as a parallel consequent phrase but subsequently diverts into transitional rhetoric.²⁷ Reading an elided PAC in m. 41 thus aligns the passage with typical late 18th-century schemas: the Primary-Theme zone represents an expanded version of the standard antecedent-consequent model, while the elided PAC in m. 41 provides the typical launch of a *tutti* independent Transition as described in Hepokoski and Darcy’s taxonomy. Hermeneutically, then, Schubert’s half note in m. 40 secures him within the Viennese tradition: it lays bare the PAC in m. 41 and clarifies the P–Tr juncture as one that is similar to numerous precedents in the works of Haydn, Mozart, and Beethoven.

Returning to the four recordings, Marriner’s faithful preservation of Schubert’s rhythmic notation is, in light of the foregoing discussion, the most compatible with Schubert’s formal conception. What should we make of the other performances, then, where the half note in m. 40 is truncated? Instead of dismissing these great performers as sloppy or negligent—a proposition that appears reasonable but is certainly naive, I believe that we may glean something significant from their seemingly inferior choice. As students listen to these recordings again, one thing that they tend to agree on is that despite the truncated half note, the feeling that m. 41 is the *de facto* PAC is not drastically undermined. After all, perception of music trajectory is not completely reliant on sonic continuity. Musical syntax and schemas, for example, also play critical roles. Example 10, which shows a similar formal juncture in the opening of Beethoven’s Symphony no. 8, demonstrates this idea. After the weak IAC in m. 8, the renewed cadential approach aims for a definitive PAC in m. 12. That the dominant chord in m. 11

²⁶ James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (Oxford: Oxford University Press, 2006), 95.

²⁷ *Ibid.*, 101.

1770 - 1827

Allegro vivace e con brio (d. es)

P

2 Flauti

2 Oboi

2 Clarinetti in B $\flat$

2 Fagotti

2 Corni in F

2 Trombe in F

Timpani in F-C

Violino I

Violino II

Viola

Violoncello

Contrabbasso

Hypermeter: 1 2 3 4 1 2 3

1770 - 1827

Allegro vivace e con brio (d. es)

1. p

2. p

3. p

4. p

5. p

6. p

7. p

8. p

9. p

10. p

11. p

12. p

13. p

14. p

15. p

16. p

17. p

18. p

19. p

20. p

21. p

22. p

23. p

24. p

25. p

26. p

27. p

28. p

29. p

30. p

31. p

32. p

33. p

34. p

35. p

36. p

37. p

38. p

39. p

40. p

41. p

42. p

43. p

44. p

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48. p

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Example 10. Beethoven Symphony no. 8/I: mm. 1–12

is rhythmically detached from the tonic in the following measure does not in any sense cast doubt on the cadential arrival in m. 12. (On the contrary, it would have been not only unnecessary, but also contextually odd, for Beethoven to turn the last G in the first violin in m. 11 into a dotted eighth note for the sake of clarifying phrase structure.)

Obviously, it is inadequate to simply assert that misreading the half note in m. 40 is after all not as egregious a violation as it may seem; we must also explain performers' general proclivity for this decision against Schubert's notation. Aside from the parallelism that I already pointed out, let us utilize both kinds of analysis that we have employed earlier in this essay—i.e., hypermetrical and Roman numeral—to further examine other musical parameters. Comparing Examples 9 and 10, we have already seen that both excerpts involve a phrase overlap between the Primary-Theme and Transition zones; hypermetrically, however, they demonstrate a subtle but significant difference. Scholars have pointed out that maintenance of a consistent hypermeter at a phrase overlap often requires a phrase expansion, without which a hypermetrical overlap, commonly known as "metrical reinterpretation," will likely occur.²⁸ The unperturbed four-bar hypermeter in Schubert's passage thus requires an extension of the last cadential approach (mm. 37–41) from a four-bar subphrase to a five-bar one. In contrast, the consequent phrase in Beethoven's passage undergoes no expansion, and the ensuing phrase overlap must therefore result in a metrical reinterpretation. Compared to the overlap in Beethoven's example, Schubert's m. 41 more expressly articulate a new hypermetrical unit, as the previous hypermeasure was already complete in m. 40. This intertextual comparison elucidates to some degree the proclivity for hearing m. 41 as a new start that is disentangled from m. 40.

Nonetheless, this observation alone cannot provide a sufficient account, as numerous analogous situations found in the eighteenth-century instrumental repertoire offer no similar incentive to break the formal juncture.²⁹ Our investigation may further solicit the help

²⁸ See William Rothstein, *Phrase Rhythm in Tonal Music* (New York: G. Schirmer, 1989), Chapter 3, for a seminal discussion of metrical reinterpretation and its corollaries.

²⁹ See, for example, the juncture between the Primary-theme and Transition zones in the first movement of Beethoven's Piano Sonata in C major, op. 2, no. 3. The excerpt is discussed in Rothstein, *Phrase Rhythm in Tonal Music* (1989), 44.

of Roman numeral analysis, which reveals something curious about the tonal design of Schubert's repeated cadential approach. Recall that the dominant harmony in m. 36 is too terse to fulfill the cadential expectation of the consequent phrase; Schubert thus restates the approach to reinforce the cadential rhetoric. The second approach in mm. 37–40, which is almost a literal repetition of mm. 33–36, creates an intriguing harmonic problem because of the content of m. 33. As seen in Example 9, m. 33 contains a ii^6 that originates from a typical IV^6 –Passing $\frac{6}{4}$ – ii^6 progression beginning in m. 29. The expanded cadential progression (I^6 – ii^6 – V) does not begin until m. 35, after the ii^6 in m. 33 subtly inflects to a $vii^{\circ\frac{4}{3}}$ in m. 34. As we hear in m. 37 a return to m. 33, our immediate perception is that the V in m. 36 moves regressively to a ii^6 in m. 37, making the V in m. 36 a back-relating dominant. In reality, however, the analysis in the example shows that Schubert discreetly adds an A natural in m. 37 to change the ii^6 into a $vii^{\circ\frac{4}{3}}$ to avoid the retrogression. This change, however, does little to override the parallelism between mm. 33 and 37. As a result, we may project a back-relating V in m. 40, just as we have heard in m. 36. Both tonal and hypermetrical considerations thus reveal a perceptual boundary between mm. 40 and 41, which helps explain performer's tendency to shorten the half note in m. 40. Thus interpreted, Schubert's notation of the second half note in m. 40 suggests an awareness of the intrinsic discontinuity between mm. 40 and 41, and that the half note is consciously put in place to clarify his intent.

CONCLUSION

In the above case studies, I have aimed to demonstrate the pedagogical relevance of myriad ideas from the scholarly literature on analysis and performance. In all three areas, we see a continuous dialogue between the analyst and performer (Schmalfeldt); a highly personal utilization of analytical results to corroborate performance interpretations (Rothstein); an active process of investigation and reflection that mingles aspects of performance and analysis (Howell and Carey); deliberate consultations of performances in making analytical decisions (Lester); and a radical synthesis of score study, historical and stylistic awareness, and listening (Cook). In bringing these ideas to practical fruition, recordings have become part of the text in the theory classroom. Whereas conventional music theory textbooks teach the fundamental concepts of harmonic, contrapuntal, and formal categories, performances illumine the relevance of these concepts in the vivid sounds of music making. Music theory instruction conceived this way is much like Alton Brown's quirky but effective approach to cooking on his popular show "Good Eats" on the Food Network."³⁰ Brown's aim is to recreate delicacies from cultures all around the globe through the lens of a scientist who strives to explain the mechanism of each minute detail in the cooking; in turn, these explanations inspire chefs (with Brown himself as an exemplar) to concoct their own recipes through personal interaction and experimentation with the principles at work. Obviously, one does not necessarily require Brown's approach to become a good chef; a gifted chef may very well bring a recipe to life by a combination of industriousness, passion, intuition, and experience. Yet, as chefs learn of the underlying causes of their culinary practices and traditions, creativity for innovative recipes elevates to new levels (as Brown himself has so efficaciously demonstrated), and culinary theories become an integral part of a practice that is fun, innovative, and rewarding.

³⁰ Information on the show may be found on the website <http://www.foodnetwork.com/good-eats/index.html>.

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