

New Observations on Voice Leading, Hemiola,
and their Roles in Tonal and Rhythmic Structures in
Chopin's Prelude in B Minor, Op. 28 No. 6

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In the course of his insightful analysis of rhythmic organization in Chopin's Prelude in G Major op. 28 no. 3, Carl Schachter makes the following observation about other preludes in the collection:

Like several of the op. 28 Preludes, [no. 3] has a form more usually characteristic of a section than of a whole piece. In essence it consists of a single period of two phrases in antecedent-consequent relation. Of course a piece that was simply a period of, say, sixteen bars would be a virtual impossibility; it would sound incomplete. Chopin avoids this difficulty by modifying the consequent phrase; most often, . . . he enlarges it and, by delaying the final tonic, creates a stronger ending.¹

This paper examines another of the op. 28 Preludes, no. 6 in B Minor, focusing on the means employed to enlarge the consequent phrase in that piece and suggesting the presence of a method of phrase expansion involving hemiola that has not, up to now, been adequately explored. It will propose that: (1) in some cases hemiola suggests the reinterpretation of two measures on the foreground as a single measure of twice normal duration; and (2) this "hemiola measure" can function *as a single measure* within the underlying metrical structure, producing expansion of the phrase without disturbing our perception of either the underlying meter or of metric organization within the phrase.² Since the method of rhythmic

¹Carl Schachter, "Rhythm and Linear Analysis: Durational Reduction," *The Music Forum* 5 (New York: Columbia University Press, 1980), 204.

²The theoretical principles and methodology employed here are based upon those discussed and developed by others: (1) Carl Schachter, in his three articles "Rhythm and Linear Analysis: A Preliminary Study," *The Music Forum* 4 (New York: Columbia University Press, 1976), 281-334; "Rhythm

analysis of op. 28 no. 6 employed here is interdependent with a particular view of the Prelude's tonal structure, this study will consist of two parts. Part I concerns tonal and formal structures in the Prelude. Through some comparative analysis, it will clarify and resolve some aspects of its tonal organization that have posed problems for analysts in the past. Part II provides a detailed discussion of rhythmic structure and concludes with a durational reduction of the piece.

I

Like op. 28 no. 3, the Prelude no. 6 in B Minor is essentially an expanded parallel period (in formal terms, an AA' binary unit). The form is clearly articulated by two cadences: the first, on V in m. 8, reaches a dividing dominant accompanying an interruption in the upper voice; the second achieves a long-delayed arrival on tonic in m. 22. The antecedent phrase clearly divides into two four-measure units. In turn, the first of these then subdivides into two two-measure units, thus producing the familiar subphrase

and Linear Analysis: Durational Reduction," *The Music Forum* 5 (Columbia University Press, 1980), 197–332; "Rhythm and Linear Analysis: Aspects of Meter," *The Music Forum* 6, Part I (New York: Columbia University Press, 1987), 1–59; (2) the principles of phrase structure and phrase rhythm developed by William Rothstein in "Rhythm and the Theory of Structural Levels," (Ph.D. dissertation, Yale University, 1981) and *Phrase Rhythm in Tonal Music* (New York: Schirmer, 1989); and (3) the theories of Heinrich Schenker upon which the work of both is so strongly based, particularly those expressed in *Free Composition*, translated and edited by Ernst Oster (New York: Longman, 1979).

In addition, while I differ with him on many significant points, this paper owes a substantial debt to Charles Burkhart for his earlier paper "The Polyphonic Melodic Line of Chopin's B-Minor Prelude," in *Chopin Preludes, Op. 28: An Authoritative Score, Historical Background, Analysis, Views, and Comments*, edited by Thomas Higgins (New York: W. W. Norton & Company, 1973), 80–89, especially for his ideas about motivic structure (not addressed specifically here) and for the thoughts about tonal and rhythmic structure it has stimulated.

organization of $[(2 + 2) + 4]$ measures known as *Satz* or *Sentence* form overall.³

The high degree of regularity within the eight-bar antecedent leads one to expect an eight-measure consequent with similar duple subdivisions and concluding with a full cadence on I. What occurs, however, is an eighteen-measure expanded consequent that includes two literal repetitions of individual measures (in a context where two-measure units are the norm), a deceptive cadence, a near-literal reprise of the three measures preceding the deceptive cadence as the approach to the final cadence, and a five-measure prolongation of the final tonic.

Tonal organization within the antecedent seems quite clear. One might describe it as a prolongation of the opening tonic (mm. 1–7), followed by IV⁷ as dominant preparation (embellished with chromatic passing motions in m. 8), and finally the V of the half cadence (m. 8). Charles Burkhart adopts this interpretation as the basis for his analysis of the phrase.⁴ His voice-leading graph of the entire piece is shown as Example 1.⁵

Example 2 presents a different representation of the voice leading in the antecedent—one that has similar harmonic organization, but more clearly illustrates the role of register transfer and the presence of an upper neighbor E as $\hat{4}$ within the opening tonic prolongation. This view of tonal organization in this phrase is appealing. It includes a logical voice-leading pattern within the familiar harmonic context of tonic, dominant preparation and dominant function harmonies, each in its conventional role.

³For clear and succinct discussions of *Satz* (sentence) form as the basis of phrase and period structures, see: Joel Lester, *Harmony in Tonal Music* (New York: Knopf, 1982), v. 1, 113–122; and Rothstein, *Phrase Rhythm*, 26–27. Earlier and more elaborate discussions are found in Heinrich Christoph Koch, *Introductory Essay on Composition*, translated and edited by Nancy Kovaleff Baker (New Haven: Yale University Press, 1983), 56–57; and Arnold Schoenberg, *Fundamentals of Musical Composition*, edited by Leonard Stein (New York: St. Martin's Press, 1967), 20–80.

⁴Burkhart, 85–86.

⁵Burkhart, 86.

Example 1: Burkhart's voice-leading graph of the entire piece, his Example 5 (Burkhart 1973, p. 86).

a)

b)

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Example 2: Voice leading of first phrase illustrating register transfer and other details.

System **b** consists of a treble and bass staff. The treble staff begins with a treble clef, a key signature of two sharps (F# and C#), and a 3/4 time signature. It contains a melodic line with a dotted line indicating a continuation or a specific phrasing. The bass staff begins with a bass clef and the same key signature and time signature. It contains a melodic line with a dotted line and a fermata. Fingerings are indicated by numbers 1 through 7. A double bar line with a repeat sign is at the end of the system.

System **c** consists of a treble and bass staff. The treble staff begins with a treble clef, a key signature of two sharps (F# and C#), and a 3/4 time signature. It contains a melodic line with a dotted line indicating a continuation or a specific phrasing. The bass staff begins with a bass clef and the same key signature and time signature. It contains a melodic line with a dotted line and a fermata. Fingerings are indicated by numbers 1 through 7. A double bar line with a repeat sign is at the end of the system.

I 3 — 6 IV V div.

A comparison between mm. 7–8 and mm. 15–17, however, suggests another interpretation. Both passages play similar roles within their respective phrases: mm. 7–8 contain the approach to and the cadence on V that ends the antecedent; mm. 15–17 contain the approach to V at the end of the consequent, which leads first to a deceptive cadence and then, after a near-literal repetition of these three measures, to the final cadence on I in m. 22. The melodic line that appears in the top voice in mm. 7–8 is employed, first literally and then in extended form, as the melody of the left hand in mm. 15–17.

There is more to the resemblance between mm. 6–8 and mm. 15–17 than this obvious similarity in their melodic lines, however. A comparison of the bass line preceding the end of the first phrase (beginning with the last quarter-note in m. 6) with the left hand's melodic line in mm. 15–17 shows a remarkable parallelism. Not only do both descend a seventh from E to F#, but both also incorporate diversions to D and a stepwise return to F# through E (see Example 3). Note that in both cases upper neighbor motions provide additional melodic embellishment and motivic association (on C# and E, respectively).

Although the tonal organization of mm. 15–17 is not immediately clear, a comparison with two familiar contrapuntal procedures can be enlightening. Example 4a.1 shows a simple prolongation of V_2^4 in which I^6 is employed as a neighbor harmony. This prolongation of V may be expanded by adding embellishing tones: Example 4a.2 shows an extension of I^6 through bass motion to its root; Example 4a.3 indicates embellishment with F# as an incomplete upper-neighbor to E, an accented passing tone E leading to D, and another passing tone C#. Example 4b.1 presents a similar prolongation of a root position V^7 . This prolongation can also be modified and embellished, as shown in Examples 4b.2 and 4b.3. Omitting the bass of the first chord replaces V^7 with V_2^4 and converts IV^7 to an incomplete neighbor chord (Example 4b.2). Adding an upper neighbor to E and fleshing out an arpeggiation of IV^7 with passing tones and an incomplete neighbor tone fills in the octave skip from E3 to E2 (Example 4b.3). Example 4c shows how mm. 15–17 can be derived from overlapping presentations of the procedures of Examples 4a.3 and 4b.3, producing an extended prolongation of V^7 controlled by the unfolding of its seventh from E to F# within the melodic line of the left hand. As is commonly suggested, this line may be considered a polyphonic melody. The

Example 3: Melodic Correspondence between bass of mm. 6-8 and 15-17.

The image displays two musical staves in bass clef, both with a key signature of one sharp (F#). The top staff contains measures 6-8, and the bottom staff contains measures 15-17. Dotted lines connect specific notes between the two staves to illustrate melodic correspondence. In measure 6 (top), a half note F#4 is connected to a half note F#4 in measure 15 (bottom). In measure 7 (top), a half note G4 is connected to a half note G4 in measure 16 (bottom). In measure 8 (top), a half note A4 is connected to a half note A4 in measure 17 (bottom). Additionally, a bracket in measure 6 (top) groups a half note F#4 and a half note G4, which are connected by dotted lines to a single half note F#4 in measure 15 (bottom). Another bracket in measure 7 (top) groups a half note G4 and a half note A4, which are connected by dotted lines to a single half note G4 in measure 16 (bottom). The bottom staff also includes a half note F#4 in measure 15, which is not connected to any note in the top staff.

Example 4: Two contrapuntal procedures that prolong V
and voice leading of mm. 15–17.

a.

1. 2. 3.

N *N* *N*

IN P *P*

1 6 1 1 6 1 1 6 1

V V V

b.

1. 2. 3.

N *N* *N*

7 7 7 1 7 7 1 7 7

V V V

c.

4 2 6 4 2 7 7

V

two voices represented, however, are bass and tenor; the soprano (or upper melodic line) must be found elsewhere.

With the substantial melodic similarities found between the end of the antecedent phrase and mm. 15–17, it is not surprising to find other parallelisms as well (see Example 5). Both contain two diminished-seventh chords as surrogates for inversions of V^7 (one actually becomes an inversion of V^7 with the resolution of a suspension) and follow those inversions of V^7 with I^6 , and both include some kind of IV^7 to approach the cadential V . These similarities in harmonic language and usage, along with the parallelisms in melodic material noted earlier, lead to a conclusion that mm. 6–8 represent an unfolding of V similar to that in mm. 15–17.⁶ Example 6 incorporates this interpretation of the voice leading of mm. 6–8 in the antecedent.⁷

The underlying harmonic organization of the antecedent shown in Example 6 does not include a dominant-preparation harmony within the first phrase at the middleground level. Some may be reluctant to diminish the significance of the IV^7 in this way. Two aspects of the passage support its voice-leading role. First, IV^7 is

⁶Similar melodic relations have been noted in Burkhart, 83, and in “*Exempli Gratia: The Case of the Chimerical Cadence*,” *In Theory Only* 2/5 (1976), 31–32. Neither notes, however, either the similarities between the bass lines of mm. 7–8 and mm. 15–16, or their similarities in harmonic language. Both come to substantially different conclusions about the significance of these relationships for the overall structure of the piece.

⁷There is at least one significant difference between the prolongations of V in mm. 6–8 and mm. 15–17. At the end of the first phrase, the bass unfolding begins with $C\sharp$, while in the second phrase it begins on E . The reasons for this may be understood from several details of each passage. The arpeggiation from E to $C\sharp$ in mm. 6–7 occurs within a voice exchange that transfers E to the upper voice, which is then supported by $C\sharp$ in the bass. First, the E of the E – $C\sharp$ motion in the bass is thus a foreground melodic link. In contrast, the E in m. 15 has a more substantial role in the middleground voice leading as part of a lower voice. Second, in measure 7, $C\sharp$ takes part in a stepwise ascent from B to $F\sharp$ (see Example 6). Its appearance in the higher octave results from the melodic-motivic association with measures 16–17. The analogous structural roles played by the bass tones $C\sharp$ in m. 7 and E in m. 15 are brought out by the upper-neighbor embellishment each receives, a motivic parallelism with the neighboring E in the middleground upper voice of both phrases (see Examples 3 and 8).

not overtly stated as a simultaneity. Rather, it must be inferred from the two successive diminished-seventh chords of m. 8. Second, the chord involves chromatic alteration. The resultant chord with a raised third ($\sharp\hat{6}$) is one that typically arises from voice-leading necessity. The context, particularly the association with the corresponding place in the second phrase, is persuasive.

Interpreting the voice leading of the consequent phrase poses its own problems, in particular: where and in which voice do we locate the structural tones of the primary melodic line? With the melody assigned to the left hand as it approaches the cadence (at both mm. 17 and 21) and with this melody playing the role of lower voices rather than soprano, neither $\hat{2}$ nor $\hat{1}$ is evident at the foreground. Burkhart locates these tones in an inner voice in mm. 17 and 22, respectively (refer back to Example 1), but this seems inconsistent with the presence of $\hat{2}$, unobscured, in the higher octave at the interruption in m. 8. Perhaps it is not really necessary to find these tones stated overtly within the consequent phrase. A clear understanding of two Schenkerian concepts, *interruption* and *substitution*, may help to solve this dilemma.

Schenker's view of interruption changed considerably over time.⁸ In some analyses he apparently gives primary structural weight to the second occurrence of $\hat{2}$, rather than to the first, but his ultimate view of this procedure, clearly stated in *Free Composition*, is particularly relevant to this piece. In Part II, "The Middleground," Chapter 2, "Specific Characteristics of the Middleground: The First Level," Schenker says:

The interruption not only creates more content; it also has the effect of a delay, or retardation, on the way to the ultimate goal, $\hat{1}_I$. The interruption is able to produce this effect only because it carries within it the fundamental structure, which must achieve its fulfillment despite all detours. . . . [O]nly at the goal, $\hat{1}_I$, do we see through the game which the interruption has been playing with us. Now we understand that, with respect to the unity of the

⁸See Ernst Oster's note 7 (Schenker, 37) for a helpful summary of the various ways that Schenker represents interruptions in his analyses.

Example 5: Correspondence of harmonic language in mm. 6–8 and 15–17.

Example 6: Voice leading of first phrase incorporating unfolding of V in mm. 6–8.

The image displays a musical score for a voice leading exercise, specifically focusing on the first phrase and its unfolding in measures 6 through 8. The score is written on a grand staff with a treble and bass clef. The key signature is one sharp (F#), and the time signature is 4/4. The notation includes various musical symbols such as notes, rests, and accidentals. A large, curved line (a slur) encompasses the first phrase, which begins in measure 6 and continues through measure 8. This phrase is characterized by a series of notes that unfold, creating a sense of movement and tension. The unfolding of the voice (V) is a key feature, with the notes of the voice part being carefully tracked and connected by lines. The score also includes a measure number '5' at the beginning of the first phrase, indicating the start of the unfolding process. The notation is detailed, with many notes and accidentals, suggesting a complex harmonic and melodic structure. The overall style is that of a technical exercise or a study in voice leading, focusing on the relationship between the voice and the unfolding of the voice (V) in the first phrase.

System **b** consists of a treble and bass staff. The treble staff begins with a treble clef and a key signature of two sharps (F# and C#). It contains a melodic line with a slur over the first four notes, a fermata over the fifth note, and a dotted line leading to the sixth note. The bass staff begins with a bass clef and a key signature of two sharps. It contains a melodic line with a slur over the first four notes, a fermata over the fifth note, and a dotted line leading to the sixth note. The system is marked with a double bar line and a repeat sign. Fingerings are indicated by numbers 1, 2, 3, 4, 5, 6, and 7.

System **c** consists of a treble and bass staff. The treble staff begins with a treble clef and a key signature of two sharps (F# and C#). It contains a melodic line with a slur over the first four notes, a fermata over the fifth note, and a dotted line leading to the sixth note. The bass staff begins with a bass clef and a key signature of two sharps. It contains a melodic line with a slur over the first four notes, a fermata over the fifth note, and a dotted line leading to the sixth note. The system is marked with a double bar line and a repeat sign. Fingerings are indicated by numbers 1, 2, 3, 4, 5, 6, and 7.

V
div.

I

fundamental structure, *the first occurrence of $\hat{2}_V$ is more significant than the second.*⁹

Later in the same chapter he states:

Even at the first level, a tone which is not part of the fundamental line can substitute for a fundamental-line tone.

Such a *substitution* is generally combined with an interruption, an unfolding, or an ascending register transfer. However, it is easily recognizable as a substitution because the counterpointing bass arpeggiation clearly indicates the actual tone of the fundamental line, even though it is hidden.¹⁰

We may draw several conclusions from these two statements and their appearance in a chapter titled "The Middleground." First, both interruption and substitution are middleground events; neither significantly changes our perception of the background. Second, since the fundamental structure, to which an interruption may be applied, represents the background and the first occurrence of $\hat{2}$ in an interruption is more significant than the second, the first occurrence of $\hat{2}$ must be considered part of the background, while the return to $\hat{3}$ and the second arrival of $\hat{2}$ are part of the middleground. Finally, since both interruption and substitution are middleground events and (in an interruption) the second occurrence of $\hat{2}$ is assigned to the middleground, were a substitution for $\hat{2}$ to occur in conjunction with an interruption, it would most likely occur at the second $\hat{2}$ and would not change our perception of the background or the role of the first $\hat{2}$ within it. (Compare Examples 7a and 7b.)

In the first phrase of the Prelude, the tones of the fundamental line are quite evident, as is the return to $\hat{3}$ when the second phrase begins in m. 9. In the left-hand melody over the V of mm. 15–17 and 19–21, however, a structural $\hat{2}$ is nowhere to be found.

⁹Schenker, 37 (emphasis added).

¹⁰Schenker, 51.

Example 7: Models of two interruption procedures.

a.

Model 'a' consists of a piano introduction and a first interruption procedure. The introduction is in D major, 2/4 time, with a treble and bass staff. The first interruption procedure is marked with a double bar line and a repeat sign. It features a treble staff with a melodic line and a bass staff with a harmonic line. The procedure is labeled with Roman numerals: I, V, and I, with a sharp sign (#) above the first I. The procedure is also labeled with a hat symbol (^) and the number 1, and a hat symbol (^) and the number 2. The procedure is also labeled with a hat symbol (^) and the number 3, and a hat symbol (^) and the number 2.

b.

Model 'b' consists of a piano introduction and a second interruption procedure. The introduction is in D major, 2/4 time, with a treble and bass staff. The second interruption procedure is marked with a double bar line and a repeat sign. It features a treble staff with a melodic line and a bass staff with a harmonic line. The procedure is labeled with Roman numerals: I, V, and I, with a sharp sign (#) above the first I. The procedure is also labeled with a hat symbol (^) and the number 1, and a hat symbol (^) and the number 2. The procedure is also labeled with a hat symbol (^) and the number 3, and a hat symbol (^) and the number 2.

I V I
div.

I V I
div.

Example 8: Voice leading of second phrase.

Handwritten musical score for two systems, each with two staves. The notation includes various musical symbols such as notes, rests, and dynamic markings.

System 1 (Left):

- Staff 1 (Top): Contains a treble clef, a key signature of one sharp (F#), and a common time signature (C). It features a series of notes with a dotted line indicating a continuation or a specific phrasing. A bracket labeled "3" is positioned below the staff.
- Staff 2 (Bottom): Contains a bass clef, a key signature of one sharp (F#), and a common time signature (C). It features a series of notes with a dotted line indicating a continuation or a specific phrasing. A bracket labeled "3" is positioned below the staff.
- Annotations: A bracket labeled "3" is positioned below the first staff. A bracket labeled "3" is positioned below the second staff. A bracket labeled "3" is positioned below the first staff. A bracket labeled "3" is positioned below the second staff.

System 2 (Right):

- Staff 1 (Top): Contains a treble clef, a key signature of one sharp (F#), and a common time signature (C). It features a series of notes with a dotted line indicating a continuation or a specific phrasing. A bracket labeled "3" is positioned below the staff.
- Staff 2 (Bottom): Contains a bass clef, a key signature of one sharp (F#), and a common time signature (C). It features a series of notes with a dotted line indicating a continuation or a specific phrasing. A bracket labeled "3" is positioned below the staff.
- Annotations: A bracket labeled "3" is positioned below the first staff. A bracket labeled "3" is positioned below the second staff. A bracket labeled "3" is positioned below the first staff. A bracket labeled "3" is positioned below the second staff.

Additional Markings:

- A bracket labeled "3" is positioned below the first staff.
- A bracket labeled "3" is positioned below the second staff.
- A bracket labeled "3" is positioned below the first staff.
- A bracket labeled "3" is positioned below the second staff.

Example 8 presents a view of the voice leading for the second phrase that infers $\hat{2}$ as the melodic tone over the prolonged V in mm. 15–17 and 19–21. The association between mm. 6–8 where $\hat{2}$ is explicit, and mm. 15–17 and 19–21 where it is only implicit, supports this interpretation. While one might be tempted to identify the left hand melody approaching the cadence in the consequent as the structural line, it has already been noted that this melody does not function as a structural “soprano,” but rather results from the unfolding of V⁷ between two *lower voices*. If we accept the idea that this line could be the “melody” without representing the functional upper voice, the cadential voice leading shown in Example 8 is quite plausible.¹¹

Example 9 presents two levels of deep middleground voice leading for the entire piece. The interruption is interpreted as Schenker indicates, with the $\hat{2}$ of m. 8 as part of the fundamental structure. Since the background $\hat{2}$ occurs at the interruption, the second phrase is free to omit it. The “melody” of mm. 15–17 and 19–21 functions as the bass (and tenor), while the highest voice of the “accompaniment” serves as the soprano, exhibiting idiomatic voice-leading patterns heading toward $\hat{1}$ in m. 22. This view locates the final $\hat{1}$ in m. 22 in the same register as $\hat{2}$ at the interruption—where it actually occurs in the “accompaniment” in the consequent.

Before discussing rhythmic and metric structure in the Prelude, a summary of the main observations regarding its tonal structure is in order. First, the antecedent and consequent phrases are remarkably parallel in both melodic and harmonic structure. Second, harmonic parallelisms between the two phrases include the dominant expansions of mm. 6–8 and mm. 15–17 (and mm. 19–21). Third, the substitution of $\hat{7}$ for $\hat{2}$ that occurs at the final cadence

¹¹Burkhart also takes this point of view: “The melody’s cadence in mm. 21–22 on purely bass-function tones recalls similar cadences in many operatic arias for the bass voice. An example is Sarastro’s aria from *The Magic Flute*, ‘In diesen heil’gen Hallen,’ in which the singer’s last seven measures consist almost exclusively of bass-line pitches. At the cadence, the woodwinds effect the top-line closure” (Burkhart, 82, n1). While Burkhart’s comparison seems quite appropriate, he does not carry it quite far enough. True, the voice part in the aria is analogous to the left hand’s melody here, but the woodwind parts also have an analog: the right-hand accompaniment articulates top-line closure here, just as the woodwinds do in the aria.

Example 9: Two levels of deep middleground voice leading in the entire piece.

mm. 5 7 8 9 13 15 17 19 21 22

The image displays two systems of musical notation for piano accompaniment, likely from a larger work. The first system covers measures 5 through 22. The treble staff contains a melodic line with fingerings 3, 2, and 1 indicated above it. The bass staff features a more complex texture with arpeggiated figures and fingerings 4, 3, and 7. A dotted line connects the two systems, suggesting a comparison or continuation. The second system, starting at measure 13, shows a simplified version of the same material. Below the second system, Roman numerals (I, II, V, I) and the word 'div.' are present, indicating a division or a specific harmonic structure.

operates on the first middleground level and does not affect the fundamental structure or the interruption that characterizes it.

II

Having clarified some of the Prelude's more problematic aspects, we may use this new perspective on tonal structure to guide our interpretations of tonal rhythm and metric organization. Foreground metrical organization of the antecedent is a good place to begin to link tonal with metric structures. The fact that the antecedent divides into clear two- and four-measure units suggests two levels of hypermetric organization—one of two measures each and the other of four measures each. While the four-bar hypermeasures play the more significant role at deeper levels of structure, foreground expansions at the two-bar level are important as well. The two- and four-bar hypermeasures within the first phrase are shown in Example 10. Note how the tonal and metrical structures correspond almost exactly. The first four-bar hypermeasure coincides with the prolonged tonic harmony, while the second contains the approach to and arrival on V. Each two-bar hypermeasure also corresponds to a tonal unit: the first two coincide with the arpeggiations of I, while the second and third coordinate with VI (and the approach to V) and the unfolding of V, respectively. This correlation between tonal and metric structure is another factor that contributes to the interpretation of mm. 7–8 as an unfolding of V.

The consequent begins as if it might repeat the pattern of two four-bar hypermeasures established in the first phrase, but from measure 12 on the pattern becomes increasingly obscure. While the surface organization into two-bar hypermeasures seems to continue (with the exception of the individual measures 15 and 19), their higher-level organization into four-bar units is all but totally obscured. One might at first be tempted to look for four-bar units (in some slightly modified form) on the surface of the piece by dividing the remainder of the piece into three units of roughly four measures each: mm. 13–17, 18–21, and 22–26. Throughout the subsequent discussion, I will refer to this grouping as "Model 1." Another possibility is the grouping of mm. 15–18, 19–22, and 23–26 ("Model 2"), where mm. 13–14 are an extension of the preceding unit. Both these models result in a second phrase of four

Example 10: Antecedent phrase with two-bar and four-bar hypermeasures indicated.

The musical score is written on a grand staff (treble and bass clefs) in 2/4 time. The melody is primarily in the treble clef, with some accompaniment in the bass clef. The score is divided into two main sections by a double bar line. Above the staff, brackets indicate hypermeasures: a four-bar hypermeasure (labeled '1' at the start) and a two-bar hypermeasure (labeled '2' at the start). Below the staff, similar brackets indicate two-bar and four-bar hypermeasures. The melody consists of eighth and sixteenth notes, with some rests. The bass clef part provides a simple harmonic accompaniment. The score ends with a double bar line and a repeat sign.

four-bar hypermeasures, two of which contain one-measure expansions.¹² In the first, the one-measure units (mm. 15 and 19) would produce two five-measure sub-phrases; measure 15, as a near-literal duplicate of m. 16 is seen as an expansion of a four-bar unit consisting of mm. 13–14 and 16–17, while m. 26 may be seen as an extension of the preceding four-bar unit. The interpretation of m. 15 as an expansion requires some explanation. Normally when a measure is literally or near-literally repeated (as m. 15 is in m. 16), the second measure is viewed as the expansion, extending the duration of the first measure. In this case, however, mm. 16–17 form a hemiola measure that represents a single metrical unit. This then leads to a reinterpretation of m. 15 as half of the forthcoming $\frac{3}{2}$ measure, rather than a single $\frac{3}{4}$ measure. Measures 16–17 therefore become the metric prototype and m. 15 only an aborted attempt, an anticipation of sorts.

A basic flaw in Model 1 is the fact that it treats mm. 15 and 19 differently, one as an expansion of the basic phrase and one as part of it.¹³ In Model 2, m. 15 is not recognized as a separate unit even though this seems inconsistent with the predominant foreground two-bar hypermetric units, because considering m. 15 to be an expansion would necessitate viewing the larger unit of which it is part (mm. 15–18) as representing an underlying three-measure unit. In both models, the piece would be seen as two phrases: the first consisting of two four-bar hypermeasures, the second of four. The resulting imbalance between antecedent and consequent phrases seems incongruent with the inherent balance of the normative periodic structure and suggests that the consequent may actually be an elaborately expanded version of an eight-

¹²For a discussion of the nature of phrase expansion involving literal repetition within the phrase and other means, see Rothstein, *Phrase Rhythm*, 64–80 (particularly 74–80) and “Rhythm and the Theory of Structural Levels,” 150–180; Schachter, “Aspects of Meter,” 40–58; and Koch, 41–54, 129–148.

¹³While individual measures might occur without producing an expansion, most listeners would perceive mm. 19–21 as a near-literal duplication of mm. 15–17 and would consider m. 19 to have the same relationship to mm. 20–21 as m. 15 has to mm. 16–17.

measure basic phrase, thereby more similar to the antecedent in structure.¹⁴

In order to identify the elements that make up the basic phrase underlying the consequent, we must first identify the most obvious elements of expansion and exclude them from our model. The repeated measures (15 and 19) clearly take part in some kind of expansion. The deceptive cadence in m. 18 and the regaining of V that follows is also a typical means of expansion.¹⁵ Measures 18–21 must, therefore, be considered an expansion within the phrase and the basic phrase must be derived from the conjoining of mm. 13–17 and 22–26.

Example 11 presents the first phrase with its two- and four-bar hypermeasures indicated as before (Example 11a) along with two hypothetical basic phrases that might be considered as models for the second phrase. Both replicate the antecedent's essential tonal structure and voice leading.¹⁶ Example 11b presents the simplest possible consequent, composed of four two-bar hypermeasures coordinated with a I-VI- \sharp II-V-I progression. In this hypothetical consequent, mm. 9–12 (which appear unaltered) are followed by the dominant unfolding of mm. 16–17 and two measures of tonic. Square and predictable to a fault, the phrase makes a dull, ineffective consequent and inconsistencies between it and the antecedent suggest that there might be a better solution. Losing the subphrase organization of the $[(2 + 2) + 4]$ Satz form in the first

¹⁴For an explanation of the term “basic phrase” and its related concept of “metric prototype” see Rothstein, *Phrase Rhythm*, 64.

¹⁵While it is possible to have literal repetition within a basic phrase, the fact that the repetition is frequently used as a means of expansion combined with the fact that m. 15 occurs in the context of what appears to be a five-measure subphrase and mm. 19–21 are a literal repetition of mm. 15–17 (indicating that mm. 19 and 15 function in the same way within their respective contexts) suggests the role of phrase expansion quite strongly. For a discussion of the deceptive cadence as a means of expansion see Rothstein, *Phrase Rhythm*, 78–80.

¹⁶The most obvious consequent would be identical to the antecedent but replace the half cadence with a full cadence. The basic phrases proposed here, however, employ motivic, harmonic, and textural features like those actually incorporated in the piece.

Example 11: Antecedent phrase with hypermeasures indicated and two possible models for consequent phrase.

The image displays a musical score for a single melodic line. The notation is in a single system with a treble clef and a key signature of one flat (B-flat). The score is divided into two main sections by a double bar line. The first section, the antecedent phrase, consists of 12 measures. Above this section, there are four horizontal brackets, each spanning two measures, indicating hypermeasures. The second section shows two possible models for the consequent phrase. The first model is indicated by a bracket above the first two measures of this section. The second model is indicated by a bracket above the next two measures. The notation includes various note values (quarter, eighth, and sixteenth notes), rests, and dynamic markings such as 'f' (forte) and 'p' (piano). The score concludes with a double bar line and a repeat sign.

Handwritten musical notation on a five-line staff. The notation includes various note values, rests, and dynamic markings. A large, stylized bracket is drawn across the middle of the staff, spanning several measures. Below the staff, there are two horizontal lines with brackets underneath them, likely indicating a section or a specific part of the music.



Handwritten musical notation on a five-line staff. The notation includes various note values, rests, and dynamic markings. A large, stylized bracket is drawn across the middle of the staff, spanning several measures. Below the staff, there are two horizontal lines with brackets underneath them, likely indicating a section or a specific part of the music.

Handwritten musical notation on a five-line staff. The notation includes various note values, rests, and dynamic markings. A large, stylized bracket is drawn across the middle of the staff, spanning several measures. Below the staff, there are two horizontal lines with brackets underneath them, likely indicating a section or a specific part of the music.

phrase reduces the effectiveness of this model as a logical complement to the antecedent.

Example 11c presents an alternative that essentially joins mm. 9–12 as written with a slightly modified mm. 19–22. One measure is added at the beginning of the dominant expansion (m. 19, the equivalent of m. 15), thus moving the cadential chord to the downbeat of the final measure.¹⁷ Measures 5 and 6 of Example 11b (corresponding to mm. 16–17 of the piece), and similarly the sixth and seventh bars of Example 11c (mm. 20–21), are joined into a single hypermeasure for two reasons: (1) they each define a single unfolding of V; and (2) they both involve hemiolas produced by the harmonic rhythm, the durational pattern of the left-hand melody, and, in the latter case, the suspensions on the first quarter-note of m. 16 and second quarter-note of m. 17.

The perception of this two-measure unit is not affected by the added measure (as in Example 11c) that moves it to the sixth and seventh measure positions within the phrase. On the contrary, the inserted measure, as a near-literal duplicate of the measure that follows, seems more like an expansion than part of a basic phrase. This along with the “syncopated” position of the two-bar hypermeasure that follows gives the impression of a phrase expansion that should include an additional measure to complete the final hypermeasure, but the resulting nine-measure phrase would represent an expanded version of Example 11b, not a basic phrase at all. Other models can be hypothesized, but all would bear even less resemblance to the phrase in its final form. It appears that a more subtle kind of expansion is in use here, one that involves more than inserted measures and literal repetition.

A hemiola pattern similar to that exhibited in mm. 16–17 also occurs elsewhere, in mm. 13–14, 20–21, and 25–26. In each case, it fills an entire two-bar hypermeasure, causing a temporary reinterpretation of the foreground meter. Example 12a, the hemiola pattern that occurs in mm. 20–21 (and similarly in mm. 16–17) is the clearest example. Here harmonic rhythm, the durational pattern of the left-hand melody, and the suspensions in the upper parts combine to produce an impression of three groups of two quarter-notes in place of the normative two groups of three.

¹⁷Burkhart actually proposes this model as the basis of his analysis of the phrase. (Burkhart, 85, Example 4)

Example 12: Hemiola patterns in mm. 16–17 (20–21), 13–14 and 25–26.

a.

$\frac{3}{4}$ - 4
[VII]
 $V \frac{1}{2}$ IV^7 V

b.

$2da$ • $2da$ •
 p

c.

pp

Metric reinterpretation in mm. 13–14 (shown in Example 12b) is a bit more subtle. But rhythmic patterning and contour tend to articulate two local stress points on the first and third beats of m. 13 that sufficiently define a hemiola pattern, while the omission of the third statement of the pattern achieves a more effective *diminuendo* into the next measure.

Example 12c (mm. 25–26) contains the least definitive of the three instances. Here the hemiola does not involve either syncopated harmonic rhythm or a distinctive durational pattern. Instead, the rest in the accompaniment on the second quarter-note and the resumption of the repeated-note pattern on the third quarter of m. 25 accents the weak beat in a way that suggests the beginning of a new, duple grouping of four eighth-notes—an impression reinforced by the continuation of the bass B across the bar line. In this case, the two beats of silence at the end of m. 26 confirm the preceding duple grouping of four quarters as they define the third complete unit of that grouping.

The role of these hemiola patterns within the tonal and metric structures of the piece as a whole is not clear at first. Burkhart calls them “motivic”, suggesting an analogy with the late Baroque practice of employing hemiola preceding a cadence.¹⁸ Certainly they do play a motivic role, helping to associate the middleground structural harmonies emphasized by the rhythmic anomaly of ♭II in mm. 13–14, V in mm. 16–17 (and mm. 20–21), and I in mm. 25–26. But a procedure so strongly associated with metric manipulation must also influence our perception of metric organization within the phrase. The *New Grove Dictionary* defines hemiola as “[an] articulation of two bars in triple meter as if they were notated as three bars in duple meter.”¹⁹ This definition seems adequate as a guide to aid one in locating the phenomenon within a piece, but it ignores something fundamental: that the “three bars in duple meter” themselves form a unit of triple meter twice the duration of the notated ones. Brief as it is, Schenker’s explanation is much more useful and relevant to our discussion:

¹⁸Burkhart, 83.

¹⁹*The New Grove Dictionary of Music and Musicians*, edited by Stanley Sadie (London: Macmillan Publishers Ltd., 1980, vol. 8), 472–473.

For the purpose of a *ritardando*, especially in an ending, two $\frac{3}{4}$ or $\frac{3}{2}$ bars in a triple meter are often combined in a way that produces within the two measures an [*i.e. one*] *extended triple measure*—the hemiola.²⁰

In other words, hemiola results when one large unit of triple meter is superimposed over two smaller ones, thereby reinterpreting the *beats* of the smaller units as *divisions of the beat* in the larger one. This produces a single metrical unit of twice normal duration that contains the same number of beats and the same internal metric organization as each smaller unit. Because this “hemiola measure” is perceived as a *larger version* of the same metric prototype, it does not disrupt the basic meter but rather produces a *ritardando* or broadening of the metric pattern, without effecting a change in our perception of that pattern: thus, it functions more or less like a written-out rubato or change of *tempo*, rather than of *meter*. In our Prelude, where two-bar hypermeasures are so evident, such a procedure transforms *one hypermeasure* into *one measure*. Two such hemiola measures can then combine to form a hypermeasure of twice normal duration that might function as an equal relative to other normative hypermeasures.

Example 13 presents mm. 9–17 of the B-Minor Prelude and illustrates how such hemiola measures operate. Measures 9–12 proceed as normal, forming two normative two-bar hypermeasures (one normative four-bar hypermeasure). Measures 13–14 and 16–17, however, are hemiola measures, with the latter expanded by the anomalous single measure (m. 15). Together they form a single two-bar hypermeasure that is structurally equivalent to each of the two-bar hypermeasures which precede it.²¹ This two-bar hypermeasure represents only the first half of a four-bar unit, which is completed in mm. 22–26 (Example 14). Although they appear to be an expanded four-bar hypermeasure in and of themselves, closer

²⁰Schenker, 122 (emphasis added).

²¹The “Exempli Gratia,” 33–34, also points out these rhythmic anomalies. There the author’s solution is to re-bar the phrase into a series of changing meters. This seems far-fetched, since the resulting complexity contradicts our perception of continued, if modified, regularity.

examination shows these closing measures to be an expansion of a two-bar hypermeasure similar to that of mm. 13–17.

Measure 22, the cadential arrival on I, initiates a new two-bar hypermeasure, but the appearance of the prototypical two-bar hypermeasure in m. 23 in the form of a near-literal reprise of the opening two measures of the piece leads to a reinterpretation of m. 23 as the first, rather than second, measure of a hypermeasure and m. 22 as an expansion. Measures 25–26, then, as a hemiola measure like mm. 13–14 and 16–17, represent the equivalent of one measure. As such, they do not complete a four-bar hypermeasure begun in m. 23, but rather represent an extension of the two-bar hypermeasure of mm. 23–24: a written-out *ritardando* to end the piece.²² The interpretation of measure 22 as a *rhythmic expansion* should not be interpreted as diminishing the function or significance of the tonal event that occurs within it. It indicates only that this tonal event occurs in a metrical environment that is ambiguous on the foreground, one that is normalized as a two-bar hypermeasure on the middleground.

Example 15 illustrates the hypermetric structure of mm. 13–26. It shows how the two expanded two-bar hypermeasures of mm. 15–17 and mm. 22–24 are separated by an additional four measures (mm. 18–21) that include the deceptive cadence and the reprise of V which follows it. Measure 18, a $\frac{3}{4}$ measure, represents a single measure as it would in any normal two-bar hypermeasure (the first), while mm. 19–21, an expanded hemiola measure comparable to mm. 15–17 also represent a single measure. Together they form one expanded hypermeasure, which itself serves to expand the larger four-bar hypermeasure that began in m. 13. This kind of expansion is typical of a deceptive cadence and the subsequent re-approach toward tonal closure.²³

²²Rothstein, *Phrase Rhythm*, 80–87 discusses similar “composed-out decelerations,” achieved through various means. He specifically excludes pre-cadential hemiolas from this consideration, as he does most instances of hemiola in Brahms. I believe he is incorrect on both counts.

²³Had mm. 25–26 formed a normative two-bar hypermeasure, it, combined with the preceding two-bar unit (and m. 22, which would still have been an expansion), would have formed a complete four-bar hypermeasure—an independent metrical unit, not the completion of the expanded four-bar

Example 13: Measures 9–17 with two- and four-Bar hypermeasures indicated using hemiola measures as basis for hypermeasure analysis.

Example 14: Measures 22–26 with two- and four-bar hypermeasures indicated.

Four-bar Hypermeasure

Two-bar Hypermeasure

exp.

1

1 (2)

2

4

ext.

1 "hemiola measure"

pp

The image shows a musical score for measures 22-26. Above the staff, there are annotations for hypermeasures. A 'Four-bar Hypermeasure' is indicated by a bracket spanning measures 22-25, with a '3' below it. A 'Two-bar Hypermeasure' is indicated by a bracket spanning measures 22-23, with a '1' below it. An 'exp.' (expansion) is marked above measure 22. A '1' is placed below measure 22, and a '1 (2)' is placed below measure 23. A '2' is placed below measure 24. A '4' is placed below measure 25. An 'ext.' (extension) is marked above measure 26. A bracket labeled '1 "hemiola measure"' spans measures 24-25. The score itself is in treble and bass clefs, with a key signature of two sharps (F# and C#). It features various musical notations including notes, rests, and dynamic markings like *pp* (pianissimo) and *ff* (fortissimo).

Example 15. Measures 13-26 showing one expanded four-bar hypermeasure as its basis.

The image displays a musical score for measures 13-26, organized into two systems. Each system consists of a piano (P) staff and a treble (T) staff. The score is annotated with hypermeasure brackets and labels.

System 1 (Measures 13-20):

- Piano Staff:** A bracket labeled "1" spans measures 13-14. A bracket labeled "2" spans measures 15-16. A bracket labeled "3" spans measures 17-18. A bracket labeled "4" spans measures 19-20.
- Treble Staff:** A bracket labeled "1" spans measures 13-14. A bracket labeled "2" spans measures 15-16. A bracket labeled "3" spans measures 17-18. A bracket labeled "4" spans measures 19-20.
- Hypermeasure Labels:** "1 'terzola measure'" is placed above the first measure of the first hypermeasure. "2 'terzola measure'" is placed above the first measure of the second hypermeasure. "3 'terzola measure'" is placed above the first measure of the third hypermeasure. "4 'terzola measure'" is placed above the first measure of the fourth hypermeasure.

System 2 (Measures 21-26):

- Piano Staff:** A bracket labeled "1" spans measures 21-22. A bracket labeled "2" spans measures 23-24. A bracket labeled "3" spans measures 25-26.
- Treble Staff:** A bracket labeled "1" spans measures 21-22. A bracket labeled "2" spans measures 23-24. A bracket labeled "3" spans measures 25-26.
- Hypermeasure Labels:** "1 'terzola measure'" is placed above the first measure of the first hypermeasure. "2 'terzola measure'" is placed above the first measure of the second hypermeasure. "3 'terzola measure'" is placed above the first measure of the third hypermeasure.

Thus what might appear on the surface to be a succession of four-bar hypermeasures can instead be seen as expanded two-bar hypermeasures. If we interpret the hemiola measures as functional single measures and recognize the deceptive cadence of m. 18 along with other conventional means of phrase expansion, we may consider these fourteen measures to represent one expanded four-bar hypermeasure that corresponds to the second four-bar unit of the antecedent phrase. The phrase and sub-phrase structures of the entire piece thus yield a modified repetition of *Satz* form:

$$[(2 + 2) + 4] + [(2 + 2) + 14]$$

Satz form obtains its potency from the additive effect of having the third sub-phrase equal to the total of the preceding two. In the second phrase, it is this portion that is expanded. Rather than distorting the normal effect of the *Satz*, this magnifies it.²⁴ Despite the substantial expansion, mm. 13–26 remain functionally equivalent to mm. 5–8 in the antecedent because they also represent a single four-bar hypermeasure. Internal expansion in the consequent delays the final cadence, thereby intensifying the drive toward the tonic and creating a greater sense of resolution when it

hypermeasure left incomplete in mm. 13–17. With the deceptive cadence in m. 18 and the three measures that follow (themselves a further expansion of the phrase), only the closing measures of the piece can provide the completion of that four-bar hypermeasure. As a hemiola measure, mm. 25–26 can combine with the expansion in m. 22 to transform a two-bar hypermeasure into five measures on the foreground that can complete the expanded four-bar hypermeasure left incomplete by a similarly expanded two-bar hypermeasure (also represented by five measures on the foreground) in mm. 13–17. Were mm. 25–26 a normative two-bar hypermeasure, this would not have been possible.

²⁴It is interesting that the expanded portion of the consequent phrase also represents a unit equal to the total of those that precede it. Except for the two one-bar units (which are expansions of the most obvious kind), its three foreground four-measure units (each of which really represents an expanded two-bar hypermeasure) are equal to the three four-bar hypermeasures that make up the antecedent plus the first part of the consequent. While the greatest sense of balance and proportion derives from the middleground relationships, this foreground metric balance does contribute to the sense of completion at the end of the piece.

finally arrives. Correspondences and underlying metrical equivalence between the phrases enable the listener's sense of balance and proportion to remain undisturbed.

Durational reduction has been shown to be a useful tool, particularly for demonstrating interrelations between tonal and metrical structures.²⁵ Example 16 presents a durational reduction of the entire piece. At the most immediate foreground (Example 16a), two-bar hypermeasures play an important role. This level is notated in $\frac{6}{8}$ to clearly indicate both the role of the two-bar hypermeasures and the operation of the hemiola measures. Each dotted quarter equals one notated measure; each measure equals one two-bar hypermeasure. Examples 16b and 16c illustrate two successive levels of middleground. The $\frac{12}{8}$ notation here more clearly portrays the role of the four-bar hypermeasures. Once again, each dotted quarter equals one notated measure. Example 16d represents the deepest level on which the basic harmonic and contrapuntal structures are clearly coordinated with normalized metric events. Of the four levels, it most clearly shows that the piece is based on two phrases, each constructed of two four-bar hypermeasures. This deepest level is notated in simple quadruple meter because the triple divisions of the foreground no longer play a role.

Several details in Example 16a bear explanation. The hemiola measures (mm. 13–14, 16–17, and 20–21, and 25–26, indicated with brackets above the staff) are notated as $\frac{3}{4}$ measures. Since their durational values at this level are equivalent to an entire measure, dotted barlines separate them from their hypermetric complements. The two one-measure foreground expansions (mm. 15 and 19) are indicated as such, in parentheses. One significant clarification provided by this graph involves the role of the $\frac{1}{2}$ II of m. 12. Burkhart and others have placed the structural occurrence of the Neapolitan in m. 12, with mm. 13–14 representing an expansion or extension.²⁶ According to the durational reduction, however, m.

²⁵The methodology used here is based upon that developed by Carl Schachter in his articles "Durational Reduction" and "Aspects of Meter." While some details of notation have been adapted to the needs of this piece, the modifications will be self-explanatory to those familiar with the approach.

²⁶See Burkhart, 83, Figure 4, and "Exempli Gratia," 31–32.

Example 16. Durational reduction of entire piece.

The musical score for Example 16 is presented on two staves. The upper staff, in treble clef, contains a dense melodic line with numerous notes and rests, some of which are grouped by brackets. The lower staff, in bass clef, provides a rhythmic accompaniment with fewer notes and more rests. The score is divided into measures, with measure numbers 6, 8, 9, 13, 16, 18, 20, and 22 marked. A large bracket spans the entire piece, indicating the durational reduction. The lower staff features a series of numbers (1, 2, 3, 4) under the notes, likely representing a rhythmic or durational analysis. The upper staff shows a complex melodic line with many notes and rests, some of which are grouped by brackets. The lower staff shows a more rhythmic accompaniment with fewer notes and more rests. The overall structure of the piece is complex, with many measures and a large bracket indicating the durational reduction.

A musical score for the song "The Rose Tree". The score is written for three voices: Soprano (S), Alto (A), and Tenor (T). The music is in 2/4 time and consists of two systems. The first system contains the first line of the melody, and the second system contains the second line. The lyrics "The Rose Tree" are written below the Tenor part. The score includes various musical notations such as notes, rests, and bar lines.

12 an anticipation of that harmony—one with tremendous expressive and dramatic import, but an anticipation nonetheless.²⁷ The functional occurrence of ♯II occurs at the beginning of the new hypermeasure, m. 13, where it receives both metric and durational emphasis as well as that provided by the hemiola itself (this may be seen most clearly by comparing Example 16a with 16b, wherein the position of ♯II is “normalized”).

In Example 16b, durations within the hemiola measures are halved, making them equivalent to other, normative single measures (equal to one dotted-quarter). The deceptive cadence and the reprise of V that follows are shown here as expansions of the fourth four-bar hypermeasure whereby mm. 18–21, which would have been the third and fourth measures of the hypermeasure, are reinterpreted as a repeat of its first and second measures and are placed in parentheses. A comparison of Examples 16a and 16b shows the relationships among the various expansions that occur between mm. 13 and 26. The inserted extra measures (mm. 15 and 19) and the expansions created by the hemiola measures (mm. 13–14, 16–17, 20–21, and 25–26) are relatively foreground events, while the deceptive cadence and the reprise of V operate on a somewhat deeper middleground level (hence, the possibility of expansions within an expansion, of mm. 19 and 20–21 within mm. 18–21).

Example 16c presents a fully normalized version of the metric structure with the compound meter maintained for purposes of comparison. Particularly clear here is the derivation of the expanded part of the consequent phrase from a single four-bar hypermeasure and the metric placement of the ♯II-V-I progression within it. Comparison of this level with Examples 16a and 16b demonstrates how phrase expansion is limited to the final four-bar hypermeasure and how the four occurrences of hemiola measures, as part of that expansion, also occur only within that hypermeasure. Also clarified on this level is the role of the passing chord in m. 7 (V_2^6/V on the foreground), the function of VI in both phrases as a voice-leading chord derived from a root-position variant of a 5–6 voice-leading

²⁷For a discussion of the expressive effect of this passage and how it might be incorporated into an analysis through the use of metaphor, see Marion Guck, “Musical Images as Musical Thoughts: The Contribution of Metaphor to Analysis,” *In Theory Only* 5/5 (1981):29–42.

pattern, and the source of the diminished-seventh chords of m. 8 in a 9–8 suspension.²⁸

While it is impossible to generalize about how hemiola might be used in other pieces to produce expansions of basic phrases, sufficient consistency exists within this piece to make some general statements about its role within the B-Minor Prelude. First, in each hemiola measure, all voices (i.e., parts) combine to produce metric reinterpretation. Hemiola measures do not result when there is a metric conflict (a hemiola pattern in one or more voices while others continue the basic meter) or even any ambiguity. It is for this reason that the hemiola pattern suggested by the voice leading in mm. 7–8 does not function in the same way as those later in the piece.²⁹ The change of harmony at the beginning of m. 8 and lack of clear hemiola on the foreground of the piece forestall a metric reinterpretation that would be of structural significance.

Second, in the B-minor Prelude hemiola always works in tandem with other means of phrase expansion. At least in this piece, the interaction between and coordination of rhythmic structures at various levels are crucial contributing factors. Coordination between the hemiola measures and the two- and four-bar hypermeasures is instrumental in allowing these hemiola measures to generate expansions without disrupting the surface rhythm of the piece. Because of the consistent and obvious two-bar hypermeter, two measures can be unified into one through hemiola without displacing or distorting surrounding rhythmic structures. Even in the two instances where individual measures displace hemiola measures (mm. 15 and 19), the individual measures are so clearly incomplete that their roles as expansions are obvious and they serve to reinforce rather than contradict the perception of the complete hemiola measure as equivalent to the two-bar hypermeasure being expanded.

As a result, the hemiola transforms each hypermeasure in which it occurs into the functional equivalent of a notated measure,

²⁸In the first phrase VI takes part in a descending-thirds pattern in the bass, B–G–E–C #, which turns the ascending second B–C # into a descending seventh modified by register transfer. In the second phrase VI serves to avoid parallel fifths between I and ♯II.

²⁹See Example 16a and Burkhart, 83.

reverting it to a more foreground level of metrical structure. A similar procedure results in a case where two hemiola measures combine to transform a four-bar hypermeasure into the equivalent of a two-bar hypermeasure (such is the case in mm. 13–17). On the foreground, the regular pattern of two- and four-bar hypermeasures continues unabated, while the metrical transformations generate a network of relationships that produce the balance between the phrases necessary for a satisfactory conclusion of the piece.

In this study we have found Chopin's op. 28 no. 6 to incorporate complex tonal and metrical structures that belie its brevity. One can only imagine the possible network of structural interrelationships that might exist in a similarly constructed piece of 226 instead of 26 measures! While discoveries about the subtle role of hemiola in this piece are certainly not conclusive regarding its employment elsewhere, the prevalence of triple and compound meters throughout nineteenth-century music and the obvious use of hemiola by some of its most highly regarded composers suggest that an investigation of the role of hemiola in this repertoire may be fertile ground for further research.