

October 2013

Classical Models, Sonata Theory, Equal Division of the Octave and Two Nineteenth-Century Symphonic Movements: Comparing Analytical Approaches

Howard Cinnamon
Hofstra University

Follow this and additional works at: <https://trace.tennessee.edu/gamut>

 Part of the [Music Theory Commons](#)

Recommended Citation

Cinnamon, Howard (2013) "Classical Models, Sonata Theory, Equal Division of the Octave and Two Nineteenth-Century Symphonic Movements: Comparing Analytical Approaches," *Gamut: Online Journal of the Music Theory Society of the Mid-Atlantic*: Vol. 6 : Iss. 1 , Article 3.

Available at: <https://trace.tennessee.edu/gamut/vol6/iss1/3>

This article is brought to you freely and openly by Volunteer, Open-access, Library-hosted Journals (VOL Journals), published in partnership with The University of Tennessee (UT) University Libraries. This article has been accepted for inclusion in Gamut: Online Journal of the Music Theory Society of the Mid-Atlantic by an authorized editor. For more information, please visit <https://trace.tennessee.edu/gamut>.

CLASSICAL MODELS, SONATA THEORY, EQUAL DIVISION OF THE OCTAVE AND TWO NINETEENTH-CENTURY SYMPHONIC MOVEMENTS: COMPARING ANALYTICAL APPROACHES*

HOWARD CINNAMON

For many years, conventional wisdom about form in nineteenth-century music assumed that thematic organization and program took precedence over harmonic structure, and that conventional (i.e., Classical) models were limited in their influence in favor of expression. Later studies, such as those by Edward T. Cone and Charles Rosen, emphasized harmonic structure more strongly, revealing much about formal procedures (especially in sonata form); but overstatements and broad generalizations posed problems for theorists seeking a balance.¹ More recent studies of sonata form, such as those by William E. Caplin, James Hepokoski, and Warren Darcy, have offered additional insights when applied to this music; but like earlier studies they have focused primarily on thematic organization (although in a much more systematic way) and thus have underemphasized characteristics illustrative of the foundational formal/harmonic relationships that exist between many nineteenth-century pieces and those of an earlier practice.²

* Portions of this paper were presented in an earlier form at the 2007 meeting of the Society for Music Theory (Baltimore, MD).

¹ See Edward T. Cone, *Musical Form and Musical Performance* (New York: W. W. Norton, 1968); Charles Rosen, *The Classical Style: Haydn, Mozart, Beethoven*, rev. ed. (London and Boston: Faber and Faber, 1976); and Rosen, *Sonata Forms*, rev. ed. (New York: W. W. Norton, 1988).

² See James Hepokoski, "Fiery-Pulsed Libertine or Domestic Hero? Strauss's *Don Juan* Reinvestigated," in *Richard Strauss: New Perspectives on the Composer and His Work*, ed. Bryan Gilliam (Durham: Duke Univ. Press, 1992): 135–176; Hepokoski, "Beyond the Sonata Principle," *Journal of the American Musicological Society* 55/1 (2002): 91–154; William E. Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (New York: Oxford Univ. Press, 1998); and Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (New York: Oxford Univ. Press, 2006).

I have discussed these more recent studies in detail in a previous article on Liszt's *Faust* Symphony, so I will not reprise these comments here.³ Instead, the discussions and analyses that follow begin where my examination of the *Faust* Symphony left off. I apply similar methods to two additional symphonic movements from the late nineteenth century: the first movements of Tchaikovsky's Symphony No. 4 and Brahms's Symphony No. 3. As in my previous article, the goal is not to solve or even arbitrate the debate as to whether harmonic or thematic material should be given priority; instead it is to offer an alternative by demonstrating how incorporating analytical methods based on earlier models, which emphasize harmonic structure and interpret thematic organization in that context, alongside more recent models, which emphasize thematic organization, can prove valuable in the study of a small group of pieces that share unconventional harmonic structures. The ramifications of this study's conclusions for other works from this period will be left for the reader to evaluate.


I will begin by considering some passages that are often overlooked, along with some that seem to deviate from earlier conventions; through alternative readings, I will clarify the overlooked passages and demonstrate how the unconventional ones are actually consistent with earlier practices. Thus clarified, the large-scale tonal structure and its relationship to thematic material will be compared with earlier, harmonically based models of sonata form (by Kollmann, Galeazzi, and Czerny)⁴ to show how these works adhere to those models in remarkably consistent ways, including in bipartite formal divisions. In each case, aspects of Hepokoski and Darcy's

³ For a detailed discussion of both Hepokoski and Darcy and Caplin as it relates to this study, see Howard Cinnamon, "Classical Models, Sonata Theory, and the First Movement of Liszt's *Faust* Symphony," *Gamut* 4/1 (2011), accessible at <<http://trace.tennessee.edu/gamut/vol4/iss1/4/>>.

⁴ Augustus F. C. Kollmann, *An Essay on Practical Musical Composition* (London: [Printed for the Author], 1799; reprinted New York: Da Capo Press, 1973); Francesco Galeazzi, *Elementi teorico-pratici di musica*, vol. 2 (Rome: Puccinelli, 1796), trans. Bathia Churgin in "Francesco Galeazzi's Description (1796) of Sonata Form," *Journal of the American Musicological Society* 21/2 (1968): 181–199; and Carl Czerny, *School of Practical Composition*, Op. 600, trans. and ed. John Bishop (London: R. Cocks, 1848; reprinted New York: Da Capo Press, 1979).

Sonata Theory methodology will be incorporated to reveal how its conclusion might differ from—or how its methodology might be complementary to—that arrived at through the application of earlier models.

As in my previous article, each of these earlier models has been chosen for specific reasons. Kollmann's model is the most basic, consisting of little more than a harmonic outline with scant reference to thematic material. As such it represents a "common denominator," presenting principles with which the other two would agree, yet allowing some flexibility in application that might make it more relevant to later styles. Galeazzi's is a late eighteenth-century model that considers thematic material to a greater extent than many of its predecessors, yet clearly identifies the harmonic outline as the primary concern. Much of his terminology is easily understood and, in many ways, is similar to twentieth-century nomenclature, making its comparison with later models both easy and effective. Czerny's model has been selected for a variety of reasons. As the latest of the three, coming in the first half of the nineteenth century, it is chronologically closest to the pieces at hand; yet its basic principles remain fundamentally the same as those of the others (aside from differences in terminology, his description of sonata form is essentially the same as Galeazzi's). In addition, as the third model used in my previous paper, employing it here allows for a more consistent comparison with my earlier analysis of Liszt's *Faust* Symphony. As in my previous study, no specific claim is made that any of these theorists had a direct influence on Brahms's or Tchaikovsky's compositional practices. These models are instead employed as analytical tools (like those of contemporary theorists); they are intended as paradigms that may be used to understand formal procedures present in this music, and how they compare to those of an earlier period.



The first movement of Tchaikovsky's Fourth Symphony presents an interesting example of a sonata-form movement whose harmonic structure is based upon an equal division of the octave. Although this movement is very well known, there are surprisingly few detailed analyses of it. Most discussions focus on the thematic material: its musical and extra-musical characteristics, and its relationship to Tchaikovsky's personal life and proposed programs.⁵ With the exception of Timothy Jackson, most have discussed its harmonic structure in passing (if at all), noting its unconventional nature with little detailed comment. One notable outline of its harmonic structure is presented in Aldwell and Schachter's (and now Cadwallader's) *Harmony and Voice Leading*, where the bass-line structure is presented and explained quite briefly:

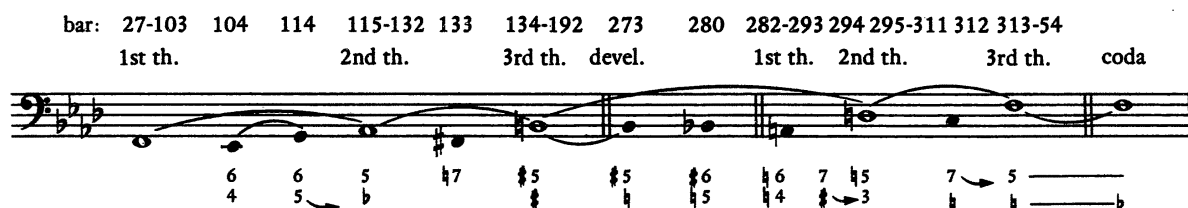
A particularly ambitious application of equal divisions [of the octave] occurs in the first movement of Tchaikovsky's Fourth Symphony. The exposition contains three main themes, each in a different key area: F minor, A \flat minor, and B major. The recapitulation resumes the motion in minor 3rds, the first theme sounding over a dominant pedal in D minor and the second and third in D minor and F major; the coda restores F minor. Example 33-20 [here Figure 1] shows the plan; in its avoidance—even contradiction—of a large-scale tonic–dominant relationship, it is scarcely tonal, at least in a traditional sense.⁶

Figure 2 presents two middleground levels of tonal structure for the entire movement, which are consistent with the interpretation presented by Aldwell, Schachter, and Cadwallader (with some formal features indicated at the top). The structure of the upper voice seems more conventional

⁵ See for example, Hans Keller, "Peter Ilyich Tchaikovsky," in *The Symphony, Vol. I: Haydn to Dvorak*, ed. Robert Simpson (London: Penguin Harmondsworth, 1966), 345–349; David Brown, *Tchaikovsky: A Biographical and Critical Study II: The Crisis Years* (London: New York: W. W. Norton, 1982), 157–173; Henry Zajackowski, "Tchaikovsky's Fourth Symphony," *Music Review* 45/3–4 (1984): 265–276; Zajackowski, *Tchaikovsky's Music Style* (Ann Arbor: UMI Research Press, 1987), 25–40; Susan McClary, *Feminine Endings: Music Gender and Sexuality* (Minneapolis: Univ. of Minnesota Press, 1991), 69–75; Joseph C. Krauss, "Tchaikovsky," in *The Nineteenth-Century Symphony*, ed. D. Kern Holoman (New York: Schirmer Books, 1997), 311–315; Timothy L. Jackson, "Aspects of Sexuality and Structure in the Later Symphonies of Tchaikovsky," *Music Analysis* 14/1 (1995), 10–15; and Sabine Hoene, "Eine musikalische Beichte der Seele: Analyse des 1. Satzes aus Tschaikowskys 4. Symphonie" ["A Musical Confession of the Soul: Analysis of the First Movement of Tchaikovsky's Fourth Symphony"], *Musik und Bildung* 31/4 (1999), 12–16.

⁶ Edward Aldwell, Carl Schachter, and Allan Cadwallader, *Harmony and Voice Leading*, 4th ed. (New York: Schirmer, 2011), 663. The same analysis appeared in previous editions of this text, by Aldwell and Schachter alone.

FIGURE 1. Tchaikovsky, Symphony No. 4/I:
Analysis of harmonic plan by Aldwell/Schachter/Cadwallader



than its bass line, in which the highly unconventional equal division of the octave occurs.

Before discussing the large-scale structure, however, details of several noteworthy passages should be clarified. Measures 1–27, the introduction, pose several interesting problems of interpretation that relate directly to the large-scale structure of the movement. The *Kopfton*, $\hat{3}$ ($A\flat$), appears immediately in m. 1, *fortissimo* in the French horns, and is prolonged by the unfolding of a $\hat{3}$ – $\hat{5}$ third throughout the opening section. It is first carried over as an enharmonic common tone ($G\sharp$), the third of an E-major neighbor harmony; then it arpeggiates up to $B\sharp$ (m. 13). Finally, $B\sharp$ moves to C in m. 19, as the soprano note of an augmented chord, which is carried over to become the fifth of a I chord with the return to F in the bass at m. 20.⁷ The prolongation of I in the bass moves down through an octave, leading first to $E\flat$, the root of the E-major neighbor chord; then it moves on by step through $D\sharp$ and $D\flat$ to the fifth of the E-major chord, $B\sharp$ (forming a $\frac{6}{4}$ chord). This unfolding of the E-major chord continues to $G\sharp$, its third (spelled $A\flat$), which is reinterpreted as the third of F minor (I), leading directly back to a root-position I. The bass of the last three harmonies outlines $B\sharp$ – $A\flat$ –F, the reverse of the harmonic

⁷ Note how the orchestration enhances our perception of this process and the function of C as a “cover tone.” The horn’s initial entrance, *fortissimo*, with $A\flat$ makes the structural role of this pitch clear from the outset. It is carried over as the third of E major ($G\sharp$), still *fortissimo* in the horns until they move directly to $B\sharp$ by leap in m. 13 and then again in m. 15. At this point the horns begin a *diminuendo* while the strings take over the main melodic function. They enter *forte* in m. 17 and lead the $B\sharp$ to C in m. 20, while the $A\flat$ is continued below it in the horns, now *piano*. The clarinet and bassoon then return to $A\flat$ in a reprise of a melodic fragment from m. 3, then leap up to C with its emphasizing incomplete neighbor $D\flat$, leaving the $A\flat$ behind, unresolved and unconnected linearly to the C.

scheme of the first half of the main portion of the piece, foreshadowing that large-scale progression in the foreground. The inclusion of $D\sharp$ in this bass progression, however, could tempt one to interpret that pitch as a more structural tone, outlining an equal division of the octave, $F-D\sharp-B\sharp-A\flat-F$, and even more closely paralleling the bass line of the entire movement. Figure 3 illustrates the two possible interpretations: (a) represents the choice preferred here, and (b) the alternative. Figure (a) is preferred, because (b) would demote the $E\sharp$ in the bass to a passing tone, despite its position as the root of an unfolded harmony. Instead, both $D\sharp$ and $D\flat$ are seen as passing tones, connecting the root and fifth of this harmony by step.

The $A\flat$ of m. 18 plays a much more independent role. Interpreted as the common tone between the F-minor and E-major harmonies, it forms a link between the two, but its functions seem more closely connected to the E-major harmony (as a continuation of the descending arpeggiation to a $\frac{6}{3}$ voicing) than the F minor (as an implied I^6). This is despite the fact that it supports C not $B\sharp$, which might suggest F as its root rather than $E\sharp$. The (apparently premature) C, however, results from a middleground 5–6 motion over $E\sharp$, creating an augmented harmony and avoiding parallel fifths. This interpretation (shown at (c)) is reinforced by the inclusion of $E\sharp$ as the augmented fifth above the bass (functionally a minor sixth), despite the spelling of the bass as $A\flat$ rather than $G\sharp$. The appearance of this voice-leading pattern here is particularly interesting, as similar 5–6 voice-leading patterns form the basis of a major part of the development in mm. 250–280 (see Figure 4 below).

The C, a superimposed inner voice, is maintained throughout the beginning of the *Moderato con anima*, returning to $A\flat$ with the arrival of the new key ($III\flat$) in m. 116. $A\flat$ is then prolonged as $\hat{1}$ of $A\flat$ minor. It eventually moves—through the superimposition of an inner voice—to $G\flat$ in m. 133, which is then carried over to become $F\sharp$ ($\hat{5}$ of the local key) when the

CINNAMON: COMPARING ANALYTICAL APPROACHES

or

(Exposition)

Development

Recapitulation

Codetta

mm.	161	176	182	185	192	193	206	211	213	218	226	231	234	239	241	243	245	247	248	250	252	254	256	258	263	267	268	273	280	282	295
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

hIV⁴⁵

third key area $\sharp\text{IV}^{\sharp 5}$ ($\text{B}\flat$ major) arrives in m. 134.⁸ $\text{F}\sharp$ is prolonged throughout the next portion of the piece, along with $\sharp\text{IV}^{\sharp 5}$, eventually being led into an inner voice for a perfect cadence at m. 185.⁹

The prolongation of B major, $\sharp\text{IV}^{\sharp 5}$, continues for over 130 measures (mm. 134–268), as does the melodic $\text{F}\sharp$ it supports, eventually leading through an augmented-sixth chord to $\text{V}/\flat\text{VI}$ (D minor) in m. 282. The internal structure of the prolongation of $\sharp\text{IV}^{\sharp 5}$ between mm. 193 and 268 is particularly noteworthy. It consists of several elements. The first, a descent in the bass by step from $\text{B}\flat$ to G, in which V^6 of B (that coincides with the return of $\text{F}\sharp$ in the upper voice) moves to VII^6 of G and then on to G minor, with G in the upper voice (see Figure 4). The remainder of the passages consists of three sequences (shown with brackets below the staff in the figure): two circles of fifths that prolong the G-minor harmony, turning it into G major in the process, and an elaborated 5–6 voice-leading sequence returning to $\sharp\text{IV}^{\sharp 5}$ in m. 268. The net result is a large-scale contrapuntal prolongation of $\sharp\text{IV}^{\sharp 5}$ in conjunction with an ascending motion in the upper voice through an octave, from $\text{F}\sharp 4$ to $\text{F}\sharp 5$.¹⁰

⁸ Here, as well, the function of the superimposed inner voice is made clear through orchestration and texture. When $\text{A}\flat$ is regained in m. 116 it is as part of the main melodic line presented in the woodwinds (primarily the bassoon). As this line continues, a countermelody is introduced in the cellos that moves directly into the same register as the prolonged $\text{A}\flat$, leading it down by step into an inner voice and arriving on $\text{E}\flat$ (spelled enharmonically as $\text{D}\sharp$) in m. 122. This countermelody is continued and then transferred to the upper woodwinds (flutes and oboes) in m. 127, where $\text{E}\flat$ is led down to $\text{C}\flat$, all while the original primary melody prolonging $\text{A}\flat$ continues in the bassoon. The $\text{C}\flat$ then leads stepwise up to $\text{G}\flat$ in m. 133, linking the inner voice with a transferred descending stepwise motion from the outer voice, connecting $\text{A}\flat$ to $\text{G}\flat$ ($\text{F}\sharp$). The $\text{F}\sharp$ then carries over into the next section, where the original main melody is abandoned (except for occasional motivic references) while the original countermelody takes over its function and a new countermelody is introduced.

⁹ This motion also results from an inner voice superimposed above the structural upper voice. In this case, the cadence results from an ascending arpeggiation through V up from $\text{F}\sharp$ through $\text{C}\sharp$ to $\text{A}\sharp$, which resolves on $\text{B}\flat$ in m. 185. Interestingly, there is no linear decent to the local $\hat{1}$. Rather, the ascending motion creates a rather weak sense of cadence, leaving the local $\hat{5}$ ($\text{F}\sharp$) yet to be resolved.

¹⁰ David Brown divides the development section into three stages that correspond to these three sequences, but he does so on the basis of thematic, rather than harmonic features (see Brown, *Tchaikovsky: A Biographical and Critical Study II*, 172). As is often the case, the thematic organization he points out complements the harmonic structure described here.

The first of these sequences is rather direct, with each of its steps moving (more or less) by root from G (m. 211) to C (m. 218) to F (m. 231) to B \flat (m. 234). The sequence that begins in m. 234 is much more complex, with each of its harmonies arpeggiated and embellished with a series of passing applied $\frac{4}{2}$ and $\frac{4}{3}$ chords. It moves first to A \flat (G \sharp) in m. 245, then on to C \sharp (D \flat), which is approached with a slight variant (the arrival of the next harmony in the sequence is delayed by having its $\frac{6}{3}$ chord replaced by a $\frac{5}{3}$ chord, making it necessary to replace the passing $\frac{4}{3}$ that had occurred between the two inversions of each preceding harmony with a $\frac{4}{2}$ chord). The last step in this circle of fifths is not strictly sequential, but returns from C \sharp /D \flat to G via a diminished fifth, completing the prolongation of that harmony. Throughout these two sequences the structural upper voice, which moves up by step from G through A \flat and B \flat to B \natural in m. 245, is submerged beneath an overlapping inner voice that moves from B \flat to D \flat , and then participates in two voice exchanges with the bass that lead it also to B \natural (C \flat) in m. 245. When these two voices converge on B \natural , the voice exchanges are abandoned and the structural voice becomes the upper voice again, leading up to D \natural in mm. 249–250. The 5–6 sequence that follows is embellished and elaborated with the motions from A \natural to B \flat and B \flat to B \natural including augmented-sixth chords, each of which leads to the next harmony in the sequence. This causes the augmented-sixth chord of m. 280, which connects the final $\flat\text{IV}^{\sharp 5}$ chord to V/ $\flat\text{VI}$ (also produced by a 5–6 voice leading pattern), to sound like it is part of the sequence, making the arrival on V/ $\flat\text{VI}$ in m. 295 sound even more like the culmination of what had preceded it.

The augmented-sixth chord of m. 280 leads the bass's B \natural through B \flat down to A \natural , while it leads the upper voice's F \sharp through G \sharp to A \natural . These form the outer voices of a $\frac{6}{4}$ chord on A, the beginning of a cadential $\frac{6-5}{4-3}$ formula that leads to $\flat\text{VI}$ (D minor) at m. 295. The arrival on $\flat\text{VI}$ corresponds to the return of thematic material previously associated with III \flat , and A \natural , its fifth ($\flat\hat{3}$

of F), is prolonged throughout the $\flat\text{VI}$ key area. Here the role of overlapping inner voices is similar to the earlier presentation of this material (see again Figure 2), except that the relationship of outer voice to inner voice is reversed, resulting in the prolongation of $A\flat$, $\hat{5}$ of the local key, instead of $A\flat$, $\hat{1}$ of the earlier key.¹¹ The return to tonic at m. 313 completes the equal division of the octave while $A\flat$ is maintained as the upper voice, reinterpreted as $\flat\hat{3}$ of F. Measures 313–348 comprise a return to the thematic material of mm. 134–185, with a linear progression from $A\flat$ to F providing closure for the section at m. 348; however, this does not represent the structural close of the piece. The original *Kopfton*, $\flat\hat{3}$ ($A\flat$), is regained in m. 355, leading to a definitive structural close in m. 403.¹²

Figure 5 presents two levels of deep-middleground structure within the movement, and reveals some of its most significant and unconventional aspects. Figure 5a shows how $\text{III}\flat$ and $\flat\text{VI}$ serve as intermediate harmonies, leading to and from $\flat\text{IV}\sharp^5$, which divides the F–F octave and thereby the tonal structure of the piece into two symmetrical parts. In both cases, the upper voice of each harmony represents the prolongation or anticipation of the soprano note of a more structural harmony (I or $\flat\text{IV}\sharp^5$). In the case of $\flat\text{VI}$, the $A\flat$ it supports results from an unfolding of the $F\sharp$ – $A\flat$ upper third of the $\flat\text{VI}$ harmony itself, in effect prolonging the $F\sharp$. In this view, the $A\flat$ supported by $\flat\text{VI}$ does not represent a return to $\hat{3}$, but an embellishing tone that delays the return to $\flat\hat{3}$ from $F\sharp/G\flat$ until m. 355. $\flat\hat{3}$ is thus considered to be the operative soprano note for the entire tonic section from m. 313 onward. Figure 5b shows the structure when these two intermediate

¹¹ As before, orchestration and texture serve here to help delineate the relationship between outer and inner voices. The orchestration remains nearly identical with that of the exposition, only the countermelody previously heard in the cellos is now in the horn.

¹² Note how each of the tonal areas on I, $\text{III}\flat$, and $\flat\text{VI}$ include motion to their own III chords. This occurrence within the initial prolongation of I is to $\flat\text{III}$ (A minor) serving to introduce $\flat\hat{3}$ long before it is to appear as $\hat{5}$ within the prolongation of $\flat\text{VI}$. In the cases of $\text{III}\flat$ and $\flat\text{VI}$, however, the harmony tonicized within their prolongations anticipates the next step in the equal division of the octave; in the case of $\text{III}\flat$ it is $C\flat$ major ($B\flat = \flat\text{IV}\sharp^5$) and in the case of $\flat\text{VI}$ it is F major ($\text{I}\flat$).

FIGURE 5. Tchaikovsky, Symphony No. 4/I: Two levels of deep-middleground structure

mm. 1 116 134 193 295 313 355 396 403 415

a.

b.

I III^b IV^{b2} IV^{b2} IV V I

I CS IV^{b2}/V IV^{b2}/V V I

harmonies are removed. It reveals a large-scale direct relationship between I and $\flat\text{IV}^{\sharp 5}$, which forms the basis of harmonic organization in the movement. As Brown, Dempster, and Headlam have noted, such a relationship is generally thought to lay outside of what most people consider to be tonality, at least from a Schenkerian perspective.¹³ According to the “ $\sharp\text{IV}(\flat\text{V})$ Hypothesis,” such relationships can only be achieved indirectly, as $\flat\text{III}/\flat\text{III}$ or VI/VI (for example), yet the logical perception of this piece indicates that a direct relationship (at least on the deepest middleground level) is the case here, suggesting that this work is, as Aldwell, Schachter, and Cadwallader put it, “scarcely tonal, at least in a traditional sense.” Because this piece’s status as a tonal work is incontrovertibly established by its foreground structure and the underlying background (which is decidedly conventional), there must be some way to reconcile this view of the middleground with the conventions of tonality.¹⁴

Felix Salzer suggests a means of understanding how this deeper level of structure works here: “If a contrapuntal chord is used to support a structural tone in the melody, it has the significance of a structural chord. Therefore, harmonic and contrapuntal chords may both fulfill either a structural or prolonging function.”¹⁵ As Figure 5b shows, $\flat\text{IV}^{\sharp 5}$ supports a lower neighbor to $\hat{3}$ (Ab), $\text{Gb}/\text{F}\sharp$. This whole-step lower neighbor returns to $\hat{3}$, which has been prolonged since the beginning of the movement, upon the return of I. The $\flat\text{IV}^{\sharp 5}$ harmony functions contrapuntally in conjunction with this lower neighbor motion and thus represents what Salzer would call a Contrapuntal Structural Harmony (CS). Salzer asserts that such harmonies exist in a wide variety of music and can serve structural functions, even as the basis of entire works, without having a

¹³ Matthew Brown, Douglas Dempster, and Dave Headlam, “The $\sharp\text{IV}(\flat\text{V})$ Hypothesis: Testing the Limits of Schenker’s Theory of Tonality,” *Music Theory Spectrum* 19/2 (1997): 153–183.

¹⁴ The background may be inferred from the deep middleground of Figure 5.

¹⁵ Felix Salzer, *Structural Hearing* (New York: Charles Boni, 1952; reprinted New York: Dover, 1962), I: 161.

“harmonic” relationship to the other harmonies in the work.¹⁶ While it is normally the case that $\sharp\text{IV}(\flat\text{V})$ is derived indirectly (as it is here on the more foreground levels), Salzer’s approach shows us that it may alternatively be derived directly as a contrapuntal harmony as well. Understanding the contrapuntal rather than harmonic function of this chord allows us to accept this middleground structure without contradicting the $\sharp\text{IV}(\flat\text{V})$ Hypothesis, since it refers specifically to harmonic relationships.¹⁷

Figure 6 presents a diagram of the entire movement with the tonal organization illustrated below, an analysis of sections and thematic material and an interpretation in terms of Hepokoski and Darcy’s Sonata Theory above, and an interpretation in terms of the three eighteenth- and early nineteenth-century treatises used in my earlier analysis (of Liszt’s *Faust Symphony*) above that. It shows how the equal division of the octave by minor thirds is partitioned into two transpositionally equivalent segments that correlate with a bipartite division of the form. Here, the F–B \sharp tritone represents a fundamental articulation point, dividing the exposition (mm. 27–192 = 165 measures) from the development/recapitulation (mm. 193–354 = 161 measures) and coda. The motion from B \sharp –F then completes the equal division of the octave. The two-part division of the form is consistent with the proportions of the movement (note the number of

¹⁶ See Salzer, *Structural Hearing*, I: 220–254, especially 220–223.

¹⁷ This interpretation is decidedly different from that offered by Jackson (“Aspects of Sexuality and Structure in the Later Symphonies of Tchaikovsky,” 10–15). For one thing, he suggests a *Kopft*on of $\hat{5}$ rather than $\hat{3}$, ignoring the prominence and prolongation of A \flat in the opening and choosing instead the C above. This leads him to propose a middleground voice leading that includes two instances of parallel fifths (in mm. 1–13 and 28–67) and a fundamental melodic line that includes $\sharp\hat{4}$ and $\flat\hat{3}$ ending with the resolution on $\hat{1}$ in m. 348. He then proposes a second fundamental line that overlaps the first and descends, *without harmonic support*, to the tonic at m. 414. Although he acknowledges the underlying I– $\sharp\text{IV}_{\flat}^{\sharp 5}$ relationship, he ignores the equal division and subdivision of the octave that produces it. He also underemphasizes the sequential nature of mm. 211–252 and the prolongation of G produced by them, opting instead for the A \flat /G \sharp of m. 245 (which falls in the middle of a circle-of-fifths sequence) as the harmony that leads to A \sharp in m. 253. Finally, his interpretation completely ignores the return to $\sharp\text{IV}_{\flat}^{\sharp 5}$ (m. 268) that completes the prolongation of that harmony and precedes the augmented-sixth chord that leads to V/ $\sharp\text{VI}$. Space will not allow a more complete critique of his analysis, but suffice it to say that it appears to give preference to motivic elements rather than an objective interpretation of the voice leading. His interpretation also includes several unconventional tonal practices without establishing any theoretical basis for them (e.g., a fundamental melodic line that includes $\sharp\hat{4}$, dual *Urlinien*, etc.).

FIGURE 6. Tchaikovsky, Symphony No. 4/I: Formal diagram

	SECTION I					SECTION II				
SECTIONAL DIVISION PER CLASSICAL MODELS	Kollman:	FIRST SUB-SECTION (22-115)			SECOND SUB-SECTION (116-192)			THIRD SUB-SECTION (193-294)		CODA (355-422)
	Galeazzi:	PRINCIPAL MOTIVE 2 nd MOTIVE			CHARACTERISTIC PASSAGE CAD. PRD			MOTIVE, MODULATION		FOURTH SUBSECTION (295-354)
	Czerny:	OPENING PERIOD CONTN.			SECOND THEME CONTINUATION & CLOSE			LOGICAL MODULATORY PASGE		CHARACTERISTIC PASSAGE CAD. PRD
	mm. 1 - 26	27 - 103			116 - 133 134 - 192			193 - 294		295 - 312 313 - 354
	INTRODUCTION	1 st KEY AREA Transition			TRANSITIONAL KEY 2 nd KEY AREA			1 st KEY AREA REPLACED		TRANS. KEY (transposed) 2 nd KEY AREA (transposed to tonic)
MODERN TERMINOLOGY	INTRODUCTION	EXPOSITION (22-192)			DEVELOPMENT (193-294)			RECAPITULATION (283-354)		
SONATA THEORY		THEME I (27-103)			THEME II			THEME I (implied)		THEME II
		Transition			THEME III			THEME I (implied)		THEME II
MOTIVIC/THEMATIC ORGANIZATION		p ^{0.1} p ^{0.2} p ^{0.3}			p ^{0.1} p ^{1.5} p ^{1.6} p ^{0.4}			p ^{0.1} p ^{1.5} p ^{1.6} p ^{0.4}		p ^{0.1} p ^{1.5} p ^{1.6} p ^{0.4}
		mm. 1-6, 7-13, 14-26			mm. 1-6, 7-13, 14-26			mm. 1-6, 7-13, 14-26		mm. 1-6, 7-13, 14-26
TONAL ORGANIZATION		a ¹ a ² a ³			a ⁴ b ⁷ b ^{1''} a ⁵			a ⁴ b ⁷ b ^{1''} a ⁵		a ⁴ b ⁷ b ^{1''} a ⁵
		b ¹ b ^{1'} b ² b ^{1''}			b ¹ b ^{1'} b ² b ^{1''}			b ¹ b ^{1'} b ² b ^{1''}		b ¹ b ^{1'} b ² b ^{1''}

measures in each section), and this is true even when the introduction and coda are included, as the *Piu Mosso* tempo of the coda makes its actual duration nearly the same as that of the introduction (although this could vary slightly from performance to performance, of course). Tchaikovsky achieves these remarkable proportions in a particularly noteworthy manner. He simply replaces the entire first key area (an extended small ternary) and transition from the exposition, mm. 27–115 (a total of 88 measures—what Kollmann would call the first subsection) with a development section based almost entirely on first-key-area material, mm. 193–282 (a total of 89 measures).¹⁸

Galeazzi specifically allows for this option, and Kollmann (who only alludes to thematic material in his reference to “elaborations” of the first subsection) would likely not preclude it either. Furthermore, while all three treatises do indicate that the return to I usually coincides with a return to the opening thematic material, all emphasize the need to reprise the material from the second subsection (second key area) even more strongly, suggesting that this feature, not the return of the opening thematic material, is the essence of the recapitulation. For the Tchaikovsky movement, though, I does not return until much later. Measure 295 is interpreted as the beginning of the fourth subsection, however, because it contains the arrival at a structural harmony that coincides with a reprise of thematic material, and it represents the transposition of second-subsection materials (the Characteristic Passage and Cadential Period in Galeazzi’s terms, and Middles Subject and Final Melody in Czerny’s terms) that is the primary focus of the eighteenth-century model. The difference here can be attributed to a change in harmonic language that distinguishes late nineteenth-century style from that of Kollmann, Galeazzi, Czerny and their

¹⁸ David Brown points out these same proportions, although his measure count (71 vs. 82) seems curious. His discussion of the distribution of thematic materials, their motivic relationships, and his explanation of the need for and function of the coda are most perceptive (see Brown, *Tchaikovsky: A Biographical and Critical Study II*: 167–173).

contemporaries: the adaptation of these procedures to a harmonic structure based upon an equal division of the octave. The value of applying the Classical models here is that they dramatically point out this and other departures from the earlier norms, and thereby emphasize the many other ways in which this movement is consistent with them.

Of particular interest here is how the start of the thematic recapitulation (m. 283) does not coincide with the harmonic arrival on $\sharp VI$ (m. 295), suggesting that this passage might better be considered part of the development, for which it serves as the climactic event. This creates an ambiguity that merges the development with the recapitulation, reinforcing their perception as a single unit—the second half of the bipartite form. Figure 7 presents the passage of mm. 274–296 in which a motion to $V/\sharp VI$ and then on to I of $\sharp VI$ occurs. The tension created by the arrival of the first key area's thematic material over a cadential $\frac{6}{4}:\frac{5}{3}$ formula contradicts the normal sense of arrival associated with the return of this material when it coincides with the appearance of I , delaying the resolution that usually occurs here until m. 295, where $\sharp VI$ is attained along with the intermediate theme from m. 116.¹⁹ The fourth subsection thus begins with the harmonic arrival in m. 295. Identification of the passage that follows as “Intermediate Key Area” and “Intermediate Theme” in both the exposition and recapitulation is based upon its role, in both instances, as part of a larger harmonic motion (see again Figure 6). In the exposition, the function of III^b (A^b minor) is as the midpoint between F and $B\sharp$, much as would be the case with most middle keys of three-key expositions, only here it provides a symmetrical subdivision of the equal division of the octave into two tritones instead of a link between I and V or III . On its reprise in m. 295, the

¹⁹ Precedents for this procedure can be found in numerous eighteenth- and early nineteenth-century pieces; the first movements of Beethoven's Op. 57 (“Appassionata”) Sonata and Mendelssohn's “Italian” Symphony are two cases that come to mind immediately. See James Wingfield, “Beyond ‘Norms and Deformations’: Towards a Theory of Sonata Form as Reception History,” *Music Analysis* 27/1: (2008), 159 and n. 44 for a discussion of this practice in nineteenth-century music in general.

FIGURE 7. (continued)

The musical score is arranged in two systems. The first system includes staves for Flute (Fl.), Oboe (Ob.), Clarinet in B-flat (Cl. (B)), Bassoon (Fg.), Cor Anglais (1-2 Cor. (F)), Trumpet (3-4 Tr.), Trombone (1-2 Trb.), and Tuba/Euphonium (3 o Tuba). The second system includes staves for Violin I (I. VI.), Violin II (II. VI.), Viola (Via.), Violoncello (Vlc.), and Double Bass (Cb.). A figured bass line is located at the bottom, labeled V_4^6 and 5_2 . The score features various musical notations including notes, rests, and dynamic markings such as *mf* and *ff*. Measure numbers 290 and 291 are indicated at the top right of the first system.

FIGURE 7. (conclusion)

The musical score is divided into two systems. The top system includes staves for Flute (Fl.), Oboe (Ob.), Clarinet in B-flat (Cl. (B)), Bassoon (Fg.), Cor Anglais (Cor. (F)), Trumpet (Tr. (F)), Trombone (Trb.), Tuba (Tba.), and Timpani (Timp.). The bottom system includes staves for Violin I (I), Violin II (II), Viola (Vla.), Violoncello (Vlc.), and Contrabass (Cb.).

Tempo markings are **Rallentando poco a poco** and **Moderato assai, quasi andante**. Dynamics include *mf*, *p*, *pp*, and *dim.*. A **1. Solo** marking is present for the Bassoon part.

Below the bottom system, there is a sequence of notes: (V) — — — — — 6 — — — — — 4 — — — — — I. The numbers 6 and 4 are positioned above the notes.

role of ♯VI is the same, connecting B♯ with F by subdividing the tritone once again, and resulting in a complete transposition of the tonal structure of the first half of the movement within the second. The consistency of thematic material used at each stage of the process reinforces a listener's perception of the parallelism and of the bipartite division.

Analysis using Sonata Theory points out many details that support this interpretation. Because this movement does not include a reprise of first-key-area material in the tonic after the development, Hepokoski and Darcy would consider it a Type 2 sonata; indeed, they include this piece in a list of such works.²⁰ As it would for other Type 2 sonatas, an analysis of this movement shows only two rotations: one that coincides with the exposition, and a second comprising both the development and tonal resolution, which includes thematic material from both the Intermediate Key Area and the second key area (corresponding to the third and fourth subsections in Figure 6). Thematic material from the introduction (identified here as P^{0.1-3}) is included in these rotations most particularly because of its intermingling with P¹ material within the second rotation.²¹ P (i.e., primary-theme zone) material consists of four modules comprising a small ternary, all of which is replaced in the second rotation by developmental material that combines P⁰ and P¹ elements into a complex of sequential passages. The dual medial caesuras (MCs)—i.e., IIIb: HA at m. 112 (followed by a brief passage of caesura fill), which is declined, and ♯IV: HA at m. 133—create a trimodular block (TMB), in which the first proposed S

²⁰ Hepokoski and Darcy, *Elements of Sonata Theory*, 364.

²¹ In this regard it should be noted that the status of mm. 1–26 as a “slow introduction” is usually assumed, but the combination of this material with that from the first key area, simultaneously throughout the second rotation and coda, suggests their tempi should not be as different as their tempo indications (*Andante sostenuto* and *Moderato con anima*) would indicate. In fact, the analysis of tonal structure offered in Figure 14, with both the *Kopft*on and tonic clearly established within the introduction, suggests that it is actually an essential part of the tonal structure and could lead one to consider including it as part of the exposition. Only the clear function of mm. 27–103 as a self-contained first key area, and the convention of a slow introduction preceding such a structural unit, motivate the identification of mm. 1–26 as “introduction.” However, the structural ambiguity of this section and its implications for interpretation of formal procedures in the piece cannot be overlooked. Likewise, the similarity of its function to that of the introduction to the *Faust* Symphony should also be noted.

(secondary-theme zone) material (or “Theme II”) is seen in a transitional role, leaving “Theme III” to serve the true S (secondary-theme zone) function.²² The three-key exposition is brought to its essential expositional close (EEC) in m. 185, followed by a brief prolongation of tonic (♯IV) that leads directly into the development and the beginning of the second rotation at m. 193.

The development organizes thematic material from both the introduction and first key area into four thematic units, corresponding to the four units of tonal structure: the bass motion from B \sharp to G (corresponding to P^{0.1}), the two circle-of-fifths sequences (corresponding to P^{1.5} and P^{1.6}), and the 5–6 sequence (corresponding to P^{0.4}—see the detailed discussion above). These modules, combined with P⁷ (which occurs in conjunction with dominant prolongation in mm. 283–294), make up the first component of the second rotation. They are followed by a nearly literal reprise of TM¹ and TM² material, now in ♯VI, followed by most of the S modules, now (finally) in the tonic. As one would expect, the ESC (essential structural closure) comes at the end of the S^{1.4} module (m. 348), just as the EEC (essential expositional closure) had earlier. The appearance of TM¹ and TM² modules in a non-tonic key should not be surprising, or considered unusual, as it is consistent with the role of TM¹ and TM² as transitional material, both here and in the exposition (see above). The coda (mm. 355–422) is based entirely on P material, again combining P⁰ and P¹ material on an equal footing. Jackson considers this to be the first key area of a “reversed recapitulation,” as it is the only time P material reappears in the tonic key, but as Hepokoski and Darcy state:

Codas that begin rotationally (with P-material) are common occurrences in all of the sonata types as a first-level default for coda treatment. . . . It is not reasonable to claim that when such a tonic P-restoration occurs in a Type 3 sonata it is self-evidently a coda,

²² For discussions of “blocked medial caesuras” and “trimodular blocks,” see Hepokoski and Darcy, *Elements of Sonata Theory*, 47–48 and 170–177, and especially 177, where the relationship between trimodular blocks and three-key expositions is discussed.

while when it is found in a Type-2 sonata it is to be considered part of a presumed “reversed recapitulation.” . . . References to P in the tonic at the ends of Type 2 sonatas are more accurately understood as codas existing in an extra space beyond the sonata form proper.²³

While one might take issue with the unequivocal nature of this assertion in a number of cases (Mozart’s Sonata K. 311/I, for example),²⁴ it seems particularly appropriate here as the passage Jackson proposes as the reprise of the first key area theme appears in the last twenty-one measures of the movement and consists of a single phrase played over a tonic pedal.

As a Type 2 sonata, Hepokoski and Darcy would consider this to be a binary form. In their discussion of recapitulations in such pieces, however, they admonish against identifying the beginning of the recapitulation on the basis of the return to tonic (or in this case, harmonic stability):

[I]t is inappropriate to claim that the “recapitulation” in a Type 2 sonata “begins with S.” Such an assertion, still commonly encountered, is one of several unfortunate consequences arising from the eagerness in the mid-twentieth century to define a sonata only in tonal terms, pushing to the side important considerations of thematic function and arrangement.

They further demonstrate their emphasis on interpretations based primarily on a piece’s pattern of rotations when they go on to assert that:

Type 2 sonatas do not have recapitulations at all, in the strict sense of the term. Instead, their second rotations have developmental spaces (P–TR or, sometimes, their episodic substitutes) grafted onto tonal resolutions (S–C).²⁵

For them, the return to harmonic stability in situations like this cannot be considered recapitulation, because the thematic rotation of which it is part begins within the development, or

²³ Hepokoski and Darcy, *Elements of Sonata Theory*, 382.

²⁴ See the discussion regarding this piece in Wingfield, “Beyond ‘Norms and Deformations,’” 151–153.

²⁵ Hepokoski and Darcy, *Elements of Sonata Theory*, 354.

is incomplete. With this assertion they contradict the intuitive response of many listeners and the stated requirements of the Classical models applied here, which associate the reprise of earlier material within a stable tonal area—particularly tonic—with recapitulatory function. Hepokoski and Darcy’s concentration on thematic material and rotations results in an under-emphasis on tonal structure that distorts the relationship between such movements and other types of sonata form. Classical models have no such problem, as they identify the start of the reprise with the return to tonic and attach structural significance primarily to the return of second-key-area material in the tonic key. These models made it clear that the concepts of reprise and tonal resolution were synonymous, even before the term “recapitulation” was devised. In effect, Hepokoski and Darcy are attempting to redefine “recapitulation” in terms of rotation theory, instead of harmonic structure (as the Classical models did earlier, and many others have done since); but a tendency to define a sonata only in terms of rotations is just as counterproductive as the tendency “to define a sonata only in tonal terms.”²⁶

The analysis of the Liszt movement offered in my earlier article does just what Hepokoski and Darcy admonish should not be done: it associates the start of the recapitulation with the return to tonic rather than the reprise of the primary theme. This is because it seems

²⁶ For further discussion of Hepokoski and Darcy’s approach to recapitulation in Type 2 sonatas, see Wingfield, “Beyond ‘Norms and Deformations,’” 155–160, particularly 158–160. Caplin (*Classical Form*) makes a similar assertion about recapitulations in sonata movements of this type:

Indeed, it might be questioned whether we should even speak of a “recapitulation” function when the main theme’s basic idea is not brought back. After all, this requirement, above all others, distinguishes the small ternary from the small binary, and in the case of the latter, recapitulation function is not recognized even if material occurring later in the first part is brought back at the end of the second part. But since it is so traditional to label the main section following the development a recapitulation, the practice can still be maintained despite these theoretical concerns. After all, one of the principle functions of a recapitulation—to restore to the home key any material originally presented in the subordinate key—is nevertheless fulfilled even when significant parts of the main theme and transition are eliminated (173).

Caplin too seems to redefine “recapitulation,” despite his acknowledgment that one of the “principle functions” of a recapitulation is the return of the “material originally presented in the subordinate key” in the tonic (which sounds suspiciously like the “sonata principle” proposed by Cone and Rosen). This view seems consistent with that apparent in the Classical models, but is at odds with Caplin’s reluctance to refer to this portion of the piece as a “recapitulation.”

most consistent with the eighteenth-century views that define this event (at least primarily) in tonal terms, and with most listeners' perceptions of an association between a recapitulation and a return to tonal stability. In the case of Tchaikovsky's work, there is no return to tonic until much later in the movement, but the reprise of thematic material from the intermediate key area within a stable harmonic area (♯VI) asserts a feeling of recapitulation nonetheless, hence the identification of m. 295 as the start of the fourth subsection. In addition, the return of first-key-area material in m. 283 obtains some of its effect from the fact that a reprise of this material is expected at the ends of developments, leading many to view this as the beginning of the recapitulation despite its harmonic instability.²⁷ The presentation of these three views, Classical models, conventional terminology, and Sonata Theory, side by side, says more about formal organization in this piece than any one of them can individually. No one of them adequately conveys the sense of formal ambivalence generated by this distinctive combination of events.



Like the *Faust* Symphony movement, the first movement of Brahms's Third Symphony employs a harmonic structure based upon the equal division of the octave into major thirds. However, it differs from both the Liszt and Tchaikovsky movements in several ways that make it appear (at least outwardly) much more conventional than either of these examples. For one thing, it has a repeated exposition (mm. 1–72). It also has a complete recapitulation of all its thematic material (unlike the Liszt and Tchaikovsky movements). But it resembles the prior examples in many—more significant—ways, some of which are not immediately discernable. There has been considerably more analytical study of this work than either of the other two, but most has

²⁷ See, for example, Wingfield, "Beyond "Norms and Deformations,"" 159, and Aldwell, Schachter, and Cadwallader, *Harmony and Voice Leading*, 663.

focused on motivic and programmatic aspects of the piece rather than its large-scale tonal structure. For example, much has been written about the F–A(♭)–F(–A♯) motive and its extra-musical associations.²⁸ Some have even tried to relate this to the tonal plan of the piece,²⁹ but few have attempted to develop a detailed account of its long-range tonal structure. One exception is Salzer’s discussion of the movement in *Structural Hearing*, which includes a reduction of the bass line of the movement (see Figure 8). About it he states the following:

In the movement from the symphony, Brahms subdivides the contrapuntal main prolongation in such a way that the development section ends on E♭, a prolonged passing chord driving to the tonic F. Thus three form sections are held together by one gigantic contrapuntal prolongation of the I. The use of this technique within the sonata form is prophetic in its anticipation of future tonal concepts. In contrast to such concepts, however, Brahms uses this particular tonal organization to save the dominant up to meas. 183 when it enters with overpowering effect.³⁰

While Salzer’s remarks about the equal division of the octave and its function within the piece seem appropriate, his interpretation of the end of the development and the beginning of the recapitulation do not seem to agree with the features of the piece. He, like so many others, interprets the F-major harmony of m. 120 as I, but it is not approached as I and does not sound like I when it arrives. On the contrary, the way it is approached and its function in context seem designed to make it sound as little like a tonic harmony as possible.

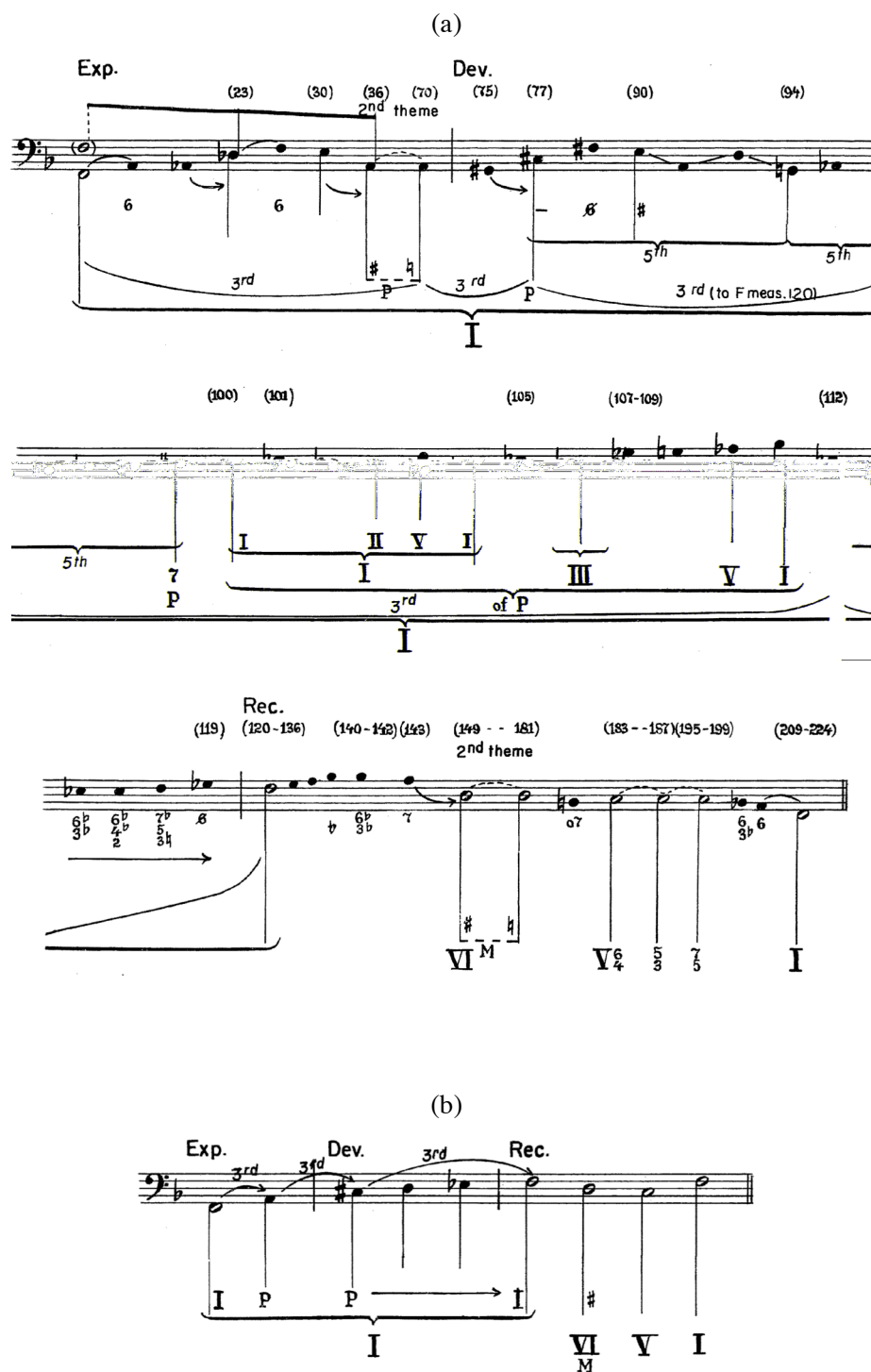
Figure 9a presents mm. 109–125, the retransition from the end of the development to the start of the recapitulation, and Figure 9b presents mm. 71b–78, the arrival of ♭VI at the beginning

²⁸ See for example Roger Sessions, *The Musical Experience of Composer, Performer and Listener* (Princeton: Princeton Univ. Press, 1950), 45–46; Walter Frisch, “Brahms’s Sonata Structures and the Principle of Developing Variations” (Ph.D. diss., Univ. of California, Berkeley, 1981), 235–236; Frisch, *Brahms and the Principle of Developing Variations* (Berkeley: Univ. of California Press, 1984), 129–133; Frisch, *Brahms: The Four Symphonies* (New York: Schirmer Books, 1996), 92–94; and Peter A. Brown, “Brahms’s Third Symphony and the New German School,” *Journal of Musicology* 2/4 (1983), 439–452.

²⁹ See Frisch, *Brahms: The Four Symphonies*, 98–100. See also Ernst Oster’s footnote to Heinrich Schenker, *Free Composition*, ed. and trans. Oster (New York: Longman, 1979; reprinted Stuyvesant, NY: Pendragon Press, 2001), 140, where he outlines a similar interpretation of the movement, without presenting any analytical diagrams.

³⁰ Salzer, *Structural Hearing*, I: 248.

FIGURE 8. Brahms, Symphony No. 3/I: Bass-line graph by Salzer



of the Development. The $E\flat$ harmony to which Salzer refers (II of $D\flat$) reappears in m. 112 after having been prolonged for eleven measures. While maintaining a stationary $E\flat$ bass, it is soon transformed into a $C\flat$ -major $\frac{6}{3}$ chord through 5–6 voice leading (m. 114), and then an $A\flat$ -minor $\frac{6}{4}$ chord (m. 116), which leads directly to an F dominant-seventh chord in m. 118. The augmented-sixth chord to which Salzer alludes in his graph (and which Ernst Oster explicitly states is present) is actually not there.³¹ While the bass and first violins do form a $G\flat$ – $E\sharp$ augmented sixth, the sustained F in the violas, timpani, horns, and woodwinds confirms that the F-major chord is still functional and that $G\flat$ and $E\sharp$ are only embellishing tones resolving in contrary motion to octave $F\sharp$ s in m. 120. The F-major harmony in m. 120 is, therefore, actually a continuation of the harmony introduced in m. 118, where the $E\flat$ that makes it appear to be a dominant-seventh chord instead acts as a suspension, delaying the $E\sharp$, a chromatic passing tone.³²

On the other hand, the V–I cadence on $D\flat$ that occurs in mm. 121–122 (omitted entirely from Salzer’s graph and Oster’s discussion) tonicizes $D\flat$ rather strongly then moves on to another F-major harmony (in m. 124) through a common-tone diminished-seventh chord. The harmonic analysis in Figure 9 interprets these events, employing the V–I cadence as the key to their harmonic context. It views these harmonies as functioning within $D\flat$ major, forming a concluding cadence that completes a prolongation that began with another cadence on this harmony in m. 77 (there minor, and enharmonically spelled as $C\sharp$). The actual tonic does not arrive until the third F-major harmony, which coincides with the return of the first-key-area theme (m. 124). Walter Frisch makes a similar observation about this cadence, even alluding to the long-range prolongational implications:

³¹ See Schenker, *Free Composition*, 140 (part of a lengthy editorial note by Oster).

³² The $B\flat$ in the second violins is similarly an embellishing tone, employed to avoid the added dissonance a continuation of $A\sharp$ would have produced.

FIGURE 9A. Brahms, Symphony No. 3/I: mm. 109–125

109 *poco rit.* - - - - - *Un poco sostenuto*

Fl. *pp sempre*

Ob. *pp sempre*

Klar. (B) *pp sempre*

Fag. *pp sempre*

K-Fag. *pp sempre*

Hr. (C) *dim.*

1Viol. *p dim.*

2Viol. *p dim.*

Br. *p dim.*

Vcl. *p dim.*

K-B. *p dim.*

pp sempre

(of $\flat VI$): Π_3^5 — $\flat 6$ —

115 *rit.*

Fl. *cresc.*

Klar. (B) *cresc.*

Fag. *cresc.*

K-Fag. *cresc.*

Hr. (F) *pp*

Pos. *pp*

Pk. *pp cresc.*

1Viol. *cresc.*

2Viol. *cresc.*

Br. *cresc.*

Vcl. *cresc.*

K-B. *cresc.*

$\flat 6$
4
V (voice leading)

($\flat 2$)
III: $\flat 7$ (sus) — $\flat 6$ (CP)

120 *Tempo I*

Fl. *a 2*

Ob. *a 2*

Klar. (B) *a 2*

Fag. *a 2*

K-Fag. *a 2*

Hr. (C) *a 2*

Hr. (F) *a 2*

Trpt. (F) *a 2*

Pos. *a 2*

Pk. *a 2*

1Viol. *a 2*

2Viol. *a 2*

Br. *a 2*

Vcl. *a 2*

K-B. *a 2*

I
(of I): CT⁰⁷ I

FIGURE 9B. Brahms, Symphony No. 3/I: mm. 71–77

71 72

F1.

Ob.

Klar. (B)

Fag.

(C)

Hr. (F)

Trpt. (F)

1.Viol.

2.Viol.

Br.

Vcl.

K.B.

piu f

a 2

ff

div.

f agitato

III ————— V I_b

of \flat VI

The motto [F–A^b–F] is harmonically exploded, as it were, so that the original F-major–F-diminished-seventh–F-major succession of mm. 1–3 now is spread over five measures to include a detour to D^b: F-major–A^b⁷–D^b–F-diminished-seventh–F-major. The first theme emerges in the tonic only at m. 124.³³

By dipping back down in m. 122 to D^b, the enharmonic equivalent of C[♯], Brahms brings forcibly to our ears the larger cycle of thirds on which this movement has been built, and through which the tonic of the recapitulation has been reached, to the virtual exclusion of normal dominant relationships.³⁴

Figure 10 presents two middleground levels of tonal structure for the entire movement that incorporate this feature (with some formal features indicated above). Note how here, as in the prior Tchaikovsky example, the recapitulation of thematic material begins before the return to harmonic stability—in this case, a tonic arrived at contrapuntally rather than harmonically. This bears significantly on the interpretation of form to be discussed below. Note how here, as in the first movement of Liszt’s *Faust* Symphony, the equal division of the octave spans only the exposition and development, reaching completion at the beginning of the recapitulation. This is quite different from what happens in Tchaikovsky’s symphony, wherein the return to tonic is delayed for a substantial part of the recapitulation. It is different from the Liszt, however, in its digression to VI for the reprise of the second key area. In fact, in many respects, this VI harmony is established more stably than the tonic that begins the recapitulation. For one thing, it is

³³ Frisch, “Brahms’s Sonata Structures,” 236; and Frisch, *Brahms: The Four Symphonies*, 99.

³⁴ Frisch, *Brahms: The Four Symphonies*, 99. His observations about metrical and tempo relationships in this passage reinforce this interpretation of the harmonic structure by demonstrating how a return to metrical stability coincides with the return to harmonic stability and the III[♭]–V–I cadence in D^b in m. 120 (Frisch, “Brahms’s Sonata Structures,” 243–245; and Frisch, *Brahms: The Four Symphonies*, 98–99). James Webster makes similar observations about the arrival at D^b in m. 123 (“The General and the Particular in Brahms’s Later Sonata Form,” in *Brahms Studies: Analytical and Historical Perspectives*, ed. George Bozarth [Oxford: Clarendon Press, 1990], 69), as does Robert Bailey (“Musical Language and Structure in the Third Symphony,” in *Brahms Studies: Analytical and Historical Perspectives*, ed. George Bozarth [Oxford: Clarendon Press, 1990], 419–420), who focuses specifically on its relationship to the F–A^b–F motive. In Webster’s chart of the characteristics of retransitions and reprises in the late sonata-form movements (69), he lists the retransition and beginning of the reprise as “Blurred?” with only a brief explanation as to how or why he sees it that way.

FIGURE 10. Brahms, Symphony No. 3/I: Two middleground levels of tonal structure

Exposition Development Recapitulation Coda

First Key Area Transition Second Key Area Codetta First Key Area Transition Second Key Area Codetta

mm. 9 15 23 31 36 40 49 53 59 61 68 70 75 77 100 101 112 118 120 122 124 136 140 144 149 153 158 162 169 170 177 179 183 187 207 209

a.

b.

TWO TRANSPOSITIONALLY EQUIVALENT SEGMENTS OF AN EQUAL DIVISION OF THE OCTAVE BY MAJOR THIRDS

VI V I

prolonged in the same way as the second key area had been in the exposition, arriving at a definitive cadence, to end the recapitulation, in m. 179. This stability, actually serves a greater purpose however, for when VI moves to V in m. 183, it adds to the greater emphasis that the harmony receives from many other factors.

Actually, the role of dominant harmonies in this piece is quite distinctive and requires some specific comment. Except for the tonic harmony from which it sets out, each step in the equal division of the octave is strongly tonicized by a concluding V–I cadence. (Even the tonicization of VI within the prolongation of the larger tonic in the recapitulation is treated that way.) Only the tonic harmony that completes the equal division is not provided with a dominant until the movement is nearly over. This adds tremendous dramatic weight to the arrival of this dominant, and contributes enormously to its climactic effect. It seems that the entire harmonic plan of the movement, in particular its use of equal division of the octave, is designed to achieve this effect. Using V to return to I at the beginning of the recapitulation would have weakened this effect significantly. The cadence on \flat VI in m. 122, right where a V–I motion would be expected, and the contrapuntal approach to I that allows it to “sneak in” for the recapitulation, are thus fundamental elements in the achievement of this overall design.

The role of the prolonged VI within the recapitulation is clear, as is its relationship to equal division of the octave and the avoidance of dominant function throughout the piece. In conjunction with the weakened return to I at the start of the recapitulation, this prolonged VI further delays the arrival at V and focuses the listeners’ attention on the definitive V–I cadence. While the tonic harmony that arrives at the beginning of the recapitulation subsumes the VI, which is incorporated into its prolongation, its conclusion with the cadence formed by the dominant at the end of the movement creates an exceptional climactic effect, due in part to the fact that it is the first such cadence to occur prominently in the piece, but also due to the parallel it

produces with the other steps in the equal division of the octave, each of which concluded with a perfect cadence in the local key. The lack of emphasis given the tonic that begins this prolongation, and the strong emphasis given to the cadence that ends it, delays the firm establishment of the conclusion of the equal division of the octave until this final cadence, creating an effect similar to that Tchaikovsky achieved by delaying the arrival of his final step in the equal division until the end of the recapitulation. The coordination of the structural close of the piece with the definitive conclusion of the equal division of the octave creates a powerful sense of closure not easily achieved in other ways.³⁵

One other, relatively small point is worth noting as well; it concerns the progression Brahms uses to approach the second key area (III). It is approached via a I– \flat VI–III progression that foreshadows (in reverse) the III– \flat VI–I progression that governs the bulk of the movement that follows (note the brackets in Figure 10). Salzer points this out by placing upward stems and a beam on these bass notes, but makes no comment about it, not even in a footnote (see again Figure 8).³⁶ Not only does this progression provide a significant motivic parallelism with the tonal structure of the rest of the piece, it allows Brahms to introduce the third of the III \sharp chord, C \sharp , as D \flat , smoothing the transition to this somewhat remote harmony.

Identifying the *Kopft*on and its location is somewhat problematic in this piece, and the selection requires some clarification. The overall melodic and harmonic structure of the piece indicates clearly that a fundamental line from $\hat{5}$ is not possible. There is no viable $\hat{4}$ to include anywhere, nor is there any harmony that might support it.³⁷ This leaves only a *Kopft*on of $\hat{3}$ as a

³⁵ For more on Salzer's analysis of the piece, and on the tonal structure of the recapitulation, see Peter H. Smith, "Brahms and Schenker: A Mutual Response to Sonata Form," *Music Theory Spectrum* 16/1 (1994), 93–95.

³⁶ See also Bailey, "Musical Language and Structure," 418, for a discussion of the role of D \flat in the exposition and its relationship to other elements in the piece.

³⁷ The absence of any substantive dominant makes impossible a $\hat{4}$ supported as the seventh of a V⁷ chord, and there are no structural dominant-preparation chords (II or IV) that can do so either.

viable possibility, but where is it located? Figure 11 presents the opening measures of this movement (mm. 1–18) and Figure 12 presents two levels of voice leading in these measures (note the pervasive presence of the F–A(♭)–F motive on several levels, indicated by brackets in the graphs). Upon initial examination, the A♭’s of mm. 2 and 4 seem like possibilities, but as ♭♯ rather than ♯♭ their inclusion would require an assertion of a chromatic fundamental line. In addition their inclusion in larger arpeggiation patterns suggests they are instead parts of prolongations of other, more structural tones. The same could be said about the A♯ of m. 3. On the other hand, the Fs in mm. 1 and 3 both initiate arpeggiations that prolong them, suggesting that they should be considered the source of a larger melodic progression. They are prolonged until m. 7, where they move up to C, emphasized by the B♯ that concludes the arpeggiation in m. 6. The prolongation of C extends through the return of I (as V/IV) in m. 10, embellished by a neighboring D♭ in mm. 11–12 (supported first by ♭II then by °II), and finally descending to A♯ through B♭ at the imperfect cadence in m. 15.³⁸ This A♯ (♯♯) serves as the primary melodic tone. It is prolonged as $\hat{1}$ in the second key area, moving to a neighbor tone, A♭ (G♯), when ♭VI arrives, and returning to A♯ when the tonic is regained in m. 124. It is then carried over into the tonicization of VI, finally descending to $\hat{2}$ supported by V in m. 187, and $\hat{1}$ in m. 209 (see Figure 10). In comparison with the harmonic organization and the bass line it produces, the upper voice of the *Ursatz* seems decidedly unremarkable. Figure 13 presents a deep middleground level of voice leading for the entire movement. It shows how ♭VI as support for the neighbor tone A♭, is of less structural significance than the other harmonies that make up the equal division of the

³⁸ John Reidy presents an interesting discussion of how metrical, harmonic, and motivic elements combine to produce a sense of ambiguity throughout the opening of this movement, resolving with the “weakly executed” cadence in mm. 13–15 (see Reidy, “The ‘Mechanism of Motion’ in the First movement of Brahms’s Third Symphony,” *Irish Musical Studies* 5 (1996), 215–218). This would be consistent with the view of the opening measures as leading towards the cadence at m. 15 and its establishment of ♯ as the *Kopftone* in the context of a sense of greater (relative) stability.

FIGURE 11. Brahms, Symphony No. 3/I: mm. 1–18

Allegro con brio

2 Flöten

2 Oboen

2 Klarinetten in B

2 Fagotte

Kontrafagott

in C¹
4 Hörner

in F³
2 Trompeten in F

3 Posaunen

Pauken in F. C

1. Violine

2. Violine

Bratsche

Violoncell

Kontrabaß

7

Fl.

Ob.

Klar. (B)

Fag.

K-Fag.

(C)

Hr. (F)

Trpt. (F)

1. Viol.

2. Viol.

Br.

Vcl.

K.-B.

13

Fl.

Ob.

Klar. (B)

Fag.

K-Fag.

(C)

Hr. (F)

Trpt. (F)

1. Viol.

2. Viol.

Br.

Vcl.

K.-B.

FIGURE 12. Brahms, Symphony No. 3/I: Two levels of middleground voice leading in mm. 1–18

mm. 1 5 7 9 10 13 14 15

The figure displays two systems of musical notation for measures 1 through 18 of the first movement of Brahms' Symphony No. 3. The top system covers measures 1 to 10, and the bottom system covers measures 11 to 18. Both systems are in B-flat major (one flat) and 4/3 time. The notation includes treble and bass staves with various melodic lines and chords. Annotations include 'NB' (Nota Bene) and Roman numerals I, 6, V7, and I. A triplet of eighth notes is marked in measure 15.

FIGURE 13. Brahms, Symphony No. 3/I: Deep-middleground voice leading

mm. 36 77 124 149 183 187 207-209

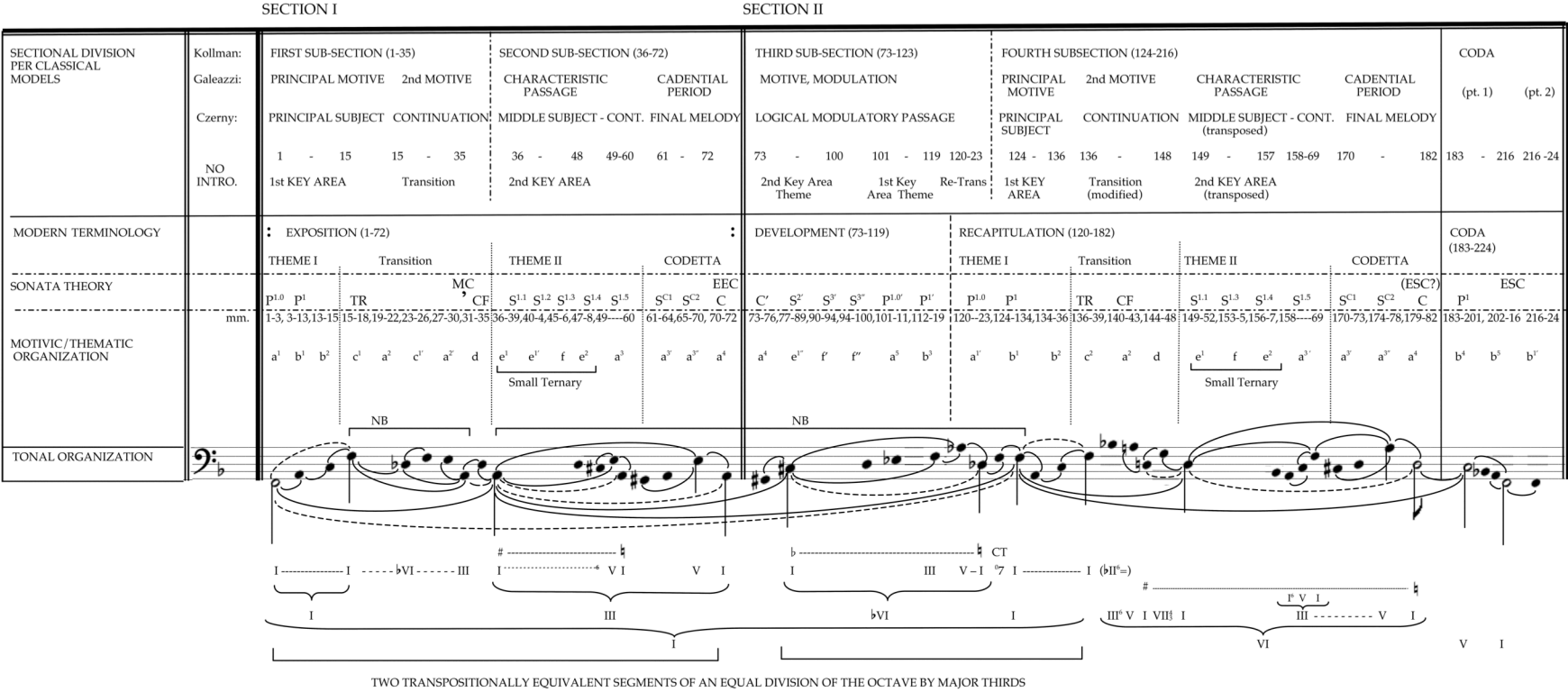
The figure displays two systems of musical notation for measures 36 through 209 of the first movement of Brahms' Symphony No. 3. The top system covers measures 36 to 124, and the bottom system covers measures 125 to 209. Both systems are in B-flat major (one flat) and 4/3 time. The notation includes treble and bass staves with various melodic lines and chords. Annotations include 'NB' (Nota Bene) and Roman numerals I, III#, bVI, I, VI, V, and I. A triplet of eighth notes is marked in measure 36.

octave, leaving the I–III[♯]–I harmonic motion as the underlying structure for most of the piece. This representation of the F–A(♭)–F motive represents a deep-level motivic parallelism that indicates just how thoroughly it pervades the piece.³⁹

Figure 14 presents a diagram of the formal organization of this movement; as in the Tchaikovsky diagram, the tonal organization is illustrated below, an analysis of sections and thematic material and an interpretation in terms of Hepokoski and Darcy’s Sonata Theory is above, and an interpretation in terms of the eighteenth- and early nineteenth-century treatises is above that. As in my prior article’s Liszt analysis, the first half of the equal division, F–A, appears within the exposition, while the second half, D♭–F, spans the development and recapitulation. Also as in the Liszt, each step in the equal division corresponds to one of Kollmann’s four subsections of the form. In other ways, this movement more closely resembles Tchaikovsky’s, particularly in the way the line between the development and recapitulation is blurred by the lack of coordination between harmonic structure and thematic design, which creates a divergence between the end of the development (in modern terminology) and the end of the third subsection (in eighteenth-century terminology). As in the Tchaikovsky, the return of first-key-area thematic material precedes the arrival of the stable tonal area that marks the beginning of the fourth subsection. There it occurs over a cadential $\frac{6}{4}\frac{5}{3}$ formula, which ultimately resolves to ♯VI (D major), while here it coincides with a cadence that closes off the prolongation of ♭VI (D♭), followed by a common-tone diminished seventh chord that leads contrapuntally back to I. As the return to I is through a motivic and contrapuntally generated harmony, the sense of tonic is weakened in m. 124; this delays its definitive arrival until the final cadence that occurs within the coda, at m. 216. As in the Tchaikovsky, this creates an ambiguity that merges the

³⁹ For a thorough discussion of the appearances of this motive throughout the symphony and its possible extra-musical associations see Brown, “Brahms’s Third Symphony and the New German School,” 439–452.

FIGURE 14. Brahms, Symphony No. 3/I: Formal diagram



development with the recapitulation, reinforcing the perception of these two subsections as a single unit and emphasizing the bipartite division of the form created by the equal division of the octave and its partition into two transpositionally equivalent harmonic motions.

Unlike the other two examples, the Brahms movement would be classified by Sonata Theory as a Type 3 sonata—that is, one in which the recapitulation includes a complete reprise of the Primary Theme. While Hepokoski and Darcy do not present a complete analysis of this movement, they do mention several of its distinctive features in their discussion of general principles. These elements have been incorporated into the interpretation presented in Figure 14. Their identification of the opening motive as $P^{1.0}$ is useful in that it helps to differentiate this essential motive from the Primary Theme material that follows, and it helps to distinguish the motive's recurrences throughout the movement. They describe its function as “a latter-day variant of the $P^{1.0}$ -motto or emblem—in this case also a kind of emblematic anacrusis—swelling dynamically into an explosive $P^{1.1}$.”⁴⁰ This is particularly useful for pointing out the association between its recurrence at the beginning of the recapitulation and the harmonic ambiguity created by the end of the prolongation $\flat VI$ and the return to I. They also point out the nature of the end of the transition as concluding with an expanded “caesura fill” (mm. 31–35), which considerably weakens the medial caesura (a third-level default III: IAC [imperfect authentic cadence] in m. 31). Their description of the phenomenon seems particularly applicable to this piece:

Assuming that in its sheer extent one might also hear such expanded CF [caesura-fill] as seeking to be understood as part of TR [transition] (as opposed to the norm, existing merely in the gap after it), this produces the effect of a broader TR that towards its end . . . seems to lose energy, not to gain it.⁴¹

⁴⁰ Hepokoski and Darcy, *Elements of Sonata Theory*, 89.

⁴¹ Hepokoski and Darcy, *Elements of Sonata Theory*, 44

Their discussion of the relationship between S (secondary-theme zone) and C (closing zone) as it relates to the EEC is also quite informative about this piece:

Particularly in sonatas after 1800 S may break down without producing a PAC. This inability is sometimes followed by a decisive, contrasting, potentially “C-like” theme. . . . On the one hand, this contradicts the definition of C as postcadential (post-EEC). . . . On the other hand, one can imagine situations . . . in which a composer might have intended to portray just such an S-breakdown. While S fails in its mission, C is left waiting for its “scheduled” turn to appear, and in fact, following the demands of unstoppable clock-time, it does so at the expected moment regardless of S’s lapse. The curious thing about such themes is that they seem to bestride both the S- and C-concepts. They are emphatically precadential, pre-EEC (the essence of S space), and yet . . . one suspects that they are simultaneously implying the onset of what “should” be a C-idea. [. . .]

In order to describe such a situation we have devised the label S^C , which is intended to suggest the presence of a theme literally in precadential, S-space that in other respects sounds as though it is more characteristically a closing theme.⁴²

A breakdown of S, such as they describe, occurs in this movement between mm. 49 and 60. While a weak cadence on III does occur in m. 53, it cannot be construed as emphatic enough to serve as the EEC. That is delayed until m. 70. The material introduced in m. 61, however, is decidedly closing in nature, as is what follows. It has thus been identified as S^C in the analysis (actually $S^{C.1}$ and $S^{C.2}$ since the passage consists of two distinctively different components), with C reserved for the brief extension after the EEC in m. 70. Note how these events actually coincide with an unfolding of the local dominant that is consistent with their function in leading to the definitive cadence that ends the exposition. Although Hepokoski and Darcy indicate that S^C modules ought to be considered in S space, it has been included here under the heading “Codetta” to be consistent with most conventional identifications.

Like many Type 3 sonatas, this movement includes three thematic rotations, the second encompassing the development section. In this instance however, the second rotation is reversed, creating a point at the end of the development where the P (primary-theme zone) material from

⁴² Hepokoski and Darcy, *Elements of Sonata Theory*, 190–191.

the second rotation leads directly into the P material at the beginning of the third. This creates a potential ambiguity as to where one ends and the other begins, and this is exploited with the return of P^{1.0} in m. 120, in conjunction with the cadence on \flat VI and the harmonic ambiguities discussed above. At this point, its initial function as an anacrusis (whose melodic, harmonic, and rhythmic motion is directed forward) allows it to be transformed into a retransition that reinforces the return to tonic, albeit somewhat tentatively.

For Sonata Theory, one of the most problematic aspects of this piece is its reprise of S material entirely in a non-tonic key (VI). Hepokoski and Darcy refer to such a phenomenon as the third of three types of “failed” recapitulation, because they view the primary goal of S material in the recapitulation to be the attainment of an ESC in the tonic before the close of “sonata-space.”⁴³ They describe this effect (along with that of the second type of failed recapitulation, in which S space begins in the tonic but does not cadence there) as follows:

Within such a movement one finds two ESC-effects. The first one, within sonata-space proper (ending S), is a “substitute” or “false” ESC, providing the illusion of closure in the wrong key with an otherwise correctly placed PAC. The real ESC, bringing tonal closure to the whole movement, is articulated on the other side of sonata-space (or at least past the completion of S), normally in a coda . . . [T]he S-block is never resolved in the tonic key.⁴⁴

Their emphasis on thematic material and rotations, in particular, leads them to view this practice as a “failure,” where the listener perceives only a successful delay of tonal closure that achieves an exceptional dramatic effect.

For Sonata Theory, sonata-space must close with the conclusion of the third rotation, regardless of how that relates to other aspects of the piece. Harmonically based approaches

⁴³ Hepokoski and Darcy, *Elements of Sonata Theory*, 245–247

⁴⁴ Hepokoski and Darcy, *Elements of Sonata Theory*, 246–247.

would take the opposite view, extending the primary structure of the piece beyond the reprise of S. While this kind of harmonic divergence is clearly not in keeping with the basic outline of the form provided by Kollmann, Galeazzi, and Czerny, an interpretation in terms of Classical models shows that it can still be understood as a nineteenth-century modification designed to achieve a specific expressive effect (as noted in Figure 14). This interpretation allows us to demonstrate both the exceptional nature of this procedure and its source in—and relationship to—earlier practices. As Hepokoski and Darcy note: “After *Egmont* and the slow movement of ‘Les Adieux,’ this type of nonresolving recapitulation became a recognizable sonata-deformation option.”⁴⁵ Why must such an *accepted* practice be labeled a “failure” or a “deformation,” and its resolution be viewed as outside the essential structure of the piece? Would it not be more desirable to view it as an acceptable alternative—a new “norm,” developed during the nineteenth century to achieve a particular goal—and to include its resolution as within an “extension” of sonata-space achieved through harmonic means? The interpretation in terms of Classical models offered here, in combination with that of conventional terminology and Sonata Theory, offers just such a perspective. As with the prior Tchaikovsky and Liszt examples, the combination of Classical models, conventional terminology and Sonata Theory, side by side, says more about the unique application of sonata form in this piece than any one of them can individually.



While each of these pieces employs a harmonic structure that divides tonal space into two equal parts, the perception of a bipartite form in each is due largely to its coordination with a plan of design and sectional proportions that lends itself to the perception of a two-part structure. All these pieces achieve this by adjusting and adapting the design and thematic organization to

⁴⁵ Hepokoski and Darcy, *Elements of Sonata Theory*, 247.

coincide with the two-part organization inherent in the harmonic structure. Furthermore, from the perspective of Classical models, each does this in a way that has a precedent in eighteenth-century theory and practice.

The first movement of Liszt's *Faust* Symphony, discussed in my previous article, creates a sense of balance by including a very brief development section (mm. 319–358 = 40 measures), based entirely on material from the first key area that does not return elsewhere, followed by a reprise of the opening introduction. The recapitulation is then shortened through the omission of the first-key-area material used in the development, and a large part of the transition (mm. 112–178 = 67 measures). The Tchaikovsky movement represents an extreme case of a similar adaptation. While it includes a substantial development section (mm. 193–282), it is used to completely replace the reprise of the first key area material, which is only implied over a cadential $\frac{6-5}{4-3}$ formula. This substitution of 90 measures of development for 89 measures of reprise creates a nearly exact equivalence between the two halves: 166 vs. 162 measures. Both of these adaptations are consistent with Galeazzi's and Czerny's descriptions, since both state that the third subsection could be of any length, and both allow for the reprise of first-key-area material to be shortened (or even eliminated entirely).

The Brahms example also adjusts its design to create a sense of proportion and balance, but here this takes the form of the retention of an eighteenth-century practice: a repeated exposition. Though its exposition is only 72 measures long, its repeat results in a total of 144 measures heard before the development. The development and recapitulation (through the cadence of m. 216, which produces the conclusive articulation of tonic) also total 144 measures, resulting in an exact balance between the two parts. For all three pieces, a blurring of the line between development and recapitulation merges these sections into one, and the balance created between that

section (the second section, in eighteenth-century terms) and the exposition confirms the interpretation of the whole piece as a bipartite form.

An informed and complete analysis should take both the harmonic and thematic perspectives into account, incorporating every approach available to illuminate its view of the piece. While Sonata Theory offers many insights into works of the eighteenth and nineteenth centuries (and beyond), its employment of terms like “failure,” “deformation,” and others with unfortunate pejorative and negative connotations suggests that some features that had become generally accepted and even common defaults in the nineteenth century are still in some way deficient or less effective realizations of an ideal sonata-form model. In its attempt to be complete and comprehensive, Sonata Theory often develops terms, categories, and subcategories that seem pedantic and overly complicated. The Classical models employed here offer a simpler solution. By themselves they may not account for every aspect of a piece or all of its details, but in combination with systematic approaches to tonal structure and thematic organization (possibly a refined version of Sonata Theory) they offer deeper insights into a formal procedure that has yet to be fully explained.

While most theorists would agree that sonata form results from the interaction between harmonic structure and design, it is clear from the eighteenth- and early nineteenth-century treatises cited here that harmonic structure was their primary consideration. And applying Classical models to these pieces has revealed that harmonic structure was at least as important a feature to certain composers of the mid- and late nineteenth century as it was to those of the prior century, and it demonstrates the value of analyzing these works from that perspective, even when their harmonic language is at its most unconventional. Furthermore, by combining applications of various concepts of sonata form, this study has shown how valuable an inclusive approach to

analysis can be. Each concept of sonata form brings a different perspective to our understanding of the pieces. The Classical models give us a framework within which we can discuss harmonic structure. In addition, they offer a historical perspective: a basis of comparison that allows us to evaluate pieces of various styles and help us to define the differences among those styles more specifically and objectively. Conventional terminology provides a common frame of reference, familiar to nearly every musician regardless of their theoretical backgrounds. And Sonata Theory provides tools and terminology for discussing details of thematic organization as they compare with conventional practice. It seems likely that similar analysis of works employing more conventional harmonic structures can reveal a great deal about their conception of form and proportion as well.

WORKS CITED

- Aldwell, Edward, Carl Schachter, and Allan Cadwallader. *Harmony and Voice Leading*. Fourth edition. New York: Schirmer, 2011.
- Bailey, Robert. "Musical Language and Structure in the Third Symphony." In *Brahms Studies: Analytical and Historical Perspectives*, edited by George Bozarth, 405–422. Oxford: Clarendon Press, 1990.
- Brown, David. *Tchaikovsky: A Biographical and Critical Study II: The Crisis Years*. London: New York: W. W. Norton, 1982.
- Brown, Matthew, Douglas Dempster, and Dave Headlam. "The $\sharp\text{IV}(\flat\text{V})$ Hypothesis: Testing the Limits of Schenker's Theory of Tonality." *Music Theory Spectrum* 19/2 (1997): 153–183.
- Brown, Peter A. "Brahms's Third Symphony and the New German School." *Journal of Musicology* 2/4 (1983): 434–452.
- Caplin, William E. *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven*. New York: Oxford University Press, 1998.
- Cone, Edward T. *Musical Form and Musical Performance*. New York: W. W. Norton, 1968.
- Cinnamon, Howard. "Classical Models, Sonata Theory, and the First Movement of Liszt's *Faust* Symphony." *Gamut* 4/1 (2011), accessible at <<http://trace.tennessee.edu/gamut/vol4/iss1/4/>>.
- Czerny, Carl. *School of Practical Composition*, Op. 600. Translated and edited by John Bishop. London: R. Cocks, 1848. Reprinted New York: Da Capo Press, 1979.
- Frisch, Walter. *Brahms and the Principle of Developing Variations*. Berkley: University of California Press, 1984.
- . "Brahms's Sonata Structures and the Principle of Developing Variations." Ph.D. dissertation, University of California, Berkley, 1981.
- . *Brahms: The Four Symphonies*. New York: Schirmer Books, 1996.
- Galeazzi, Francesco. *Elementi teorico-practici di musica*, vol. 2. Rome: Puccinelli, 1796. Translated by Bathia Churgin in "Francesco Galeazzi's Description (1796) of Sonata Form," *Journal of the American Musicological Society* 21/2 (1968): 181–199.
- Hepokoski, James. "Beyond the Sonata Principle." *Journal of the American Musicological Society* 55/1 (2002): 91–154.

- . “Fiery-Pulsed Libertine or Domestic Hero? Strauss’s *Don Juan* Reinvestigated.” In *Richard Strauss: New Perspectives on the Composer and His Work*, edited by Bryan Gilliam, 135–176. Durham: Duke University Press, 1992.
- Hepokoski, James and Warren Darcy. *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata*. New York: Oxford University Press, 2006.
- Hoene, Sabine. Eine musikalische Beichte der Seele: Analyse des 1. Satzes aus Tschaikowskys 4. Symphonie [“A Musical Confession of the Soul: Analysis of the First Movement of Tchaikovsky’s Fourth Symphony”]. *Musik und Bildung* 31/4 (1999): 12–16.
- Jackson, Timothy L. “Aspects of Sexuality and Structure in the Later Symphonies of Tchaikovsky.” *Music Analysis* 14/1 (1995): 3–25.
- Keller, Hans. “Peter Ilyich Tchaikovsky.” In *The Symphony, Vol. I: Haydn to Dvorak*, edited by Robert Simpson, 342–353. London: Penguin Harmondsworth, 1966.
- Kollmann, Augustus F. C. *An Essay on Practical Musical Composition*. London: [Printed for the Author], 1799. Reprinted New York: Da Capo Press, 1973.
- Krause, Joseph C. “Tchaikovsky.” In *The Nineteenth-Century Symphony*, edited by D. Kern Holoman, 299–326. New York, Schirmer Books, 1997.
- McClary, Susan. *Feminine Endings: Music Gender and Sexuality*. Minneapolis: University of Minnesota Press, 1991.
- Reidy, John. “The ‘Mechanism of Motion’ in the First Movement of Brahms’s Third Symphony.” *Irish Musical Studies* 5 (1996): 214–223.
- Rosen, Charles. *The Classical Style: Haydn, Mozart, Beethoven*. Revised edition. London and Boston: Faber and Faber, 1976.
- . *Sonata Forms*. Revised edition. New York: W. W. Norton, 1988.
- Salzer, Felix. *Structural Hearing*. New York: Charles Boni, 1952. Reprinted New York: Dover, 1962.
- Schenker, Heinrich. *Free Composition*. Edited and translated by Ernst Oster. New York: Longman, 1979. Reprinted Stuyvesant, NY: Pendragon Press, 2001.
- Sessions, Roger. *The Musical Experience of Composer, Performer and Listener*. Princeton: Princeton University Press, 1950.
- Smith, Peter H. “Brahms and Schenker: A Mutual Response to Sonata Form.” *Music Theory Spectrum* 16/1 (1994): 77–103.

Webster, James. "The General and the Particular in Brahms's Later Sonata Form." In *Brahms Studies: Analytical and Historical Perspectives*, edited by George Bozarth, 49–78. Oxford: Clarendon Press, 1990.

Wingfield, Paul. "Beyond 'Norms and Deformations': Towards a Theory of Sonata Form as Reception History." *Music Analysis* 27/1 (2008): 137–177.

Zajaczkowski, Henry. "Tchaikovsky's Fourth Symphony." *Music Review* 45/3–4 (1984): 265–276.

———. *Tchaikovsky's Music Style*. Ann Arbor: UMI Research Press, 1987.

ABSTRACT

The first movements of Tchaikovsky's Fourth and Brahms's Third Symphonies are examined from the perspective of earlier models of sonata form (those of Kollmann, Galeazzi, and Czerny). The author demonstrates how they adhere to the models in remarkably consistent ways, and shows how analyses based on the models can prove valuable in the study of a group of pieces with similar unconventional harmonic structures. Aspects of Hepokoski and Darcy's Sonata Theory are incorporated in each case to show how its conclusions differ from—and how they might complement—those arrived at through the application of earlier models.

HOW TO CITE THIS ARTICLE

(An example based on a humanities-style note citation)

Howard Cinnamon, "Classical Models, Sonata Theory, Equal Division of the Octave and Two Nineteenth-Century Symphonic Movements: Comparing Analytical Approaches," *Gamut* 6/1 (2013): 45–94.

ABOUT THE AUTHOR

Howard Cinnamon is Professor and Coordinator of Music Theory at Hofstra University, where he was Chair of the Music Department from 2001 to 2008. He has presented papers on the music of Brahms, Liszt, Schoenberg, Stravinsky, and Tchaikovsky at meetings of the Society for Music Theory, Music Theory Society of New York State, American Society of University Composers, and other regional conferences. His previous publications include articles on Liszt, Schoenberg, Bach, and Chopin in *Music Theory Spectrum*, *Theory and Practice*, *In Theory Only*, *Indiana Theory Review*, and *Intégral*.

This article uploaded to the Gamut site on 14 October 2013.