Unconventional Sonata Forms in Beethoven's Op. 54 Piano Sonata and Prokofiev's Fourth Symphony Op. 47, First Movement

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Abstract:

This thesis contains two expanded seminar papers on sonata form. It presents analyses of Beethoven's op. 54 piano sonata and the original version of Prokofiev's fourth symphony, op. 47 (first movement), which is based on his ballet, *The Prodigal Son*. I use form-functional theory to analyze both works, focusing on the unconventional aspects of the form of each piece. In the introduction, I also look at two earlier works by these composers, including brief analyses of Beethoven's op. 10 no. 2 sonata and Prokofiev's third symphony, op. 44. In the Beethoven sonatas, I explore some of the structural and tonal similarities between the two works and in the two Prokofiev symphonies, I compare how Prokofiev transformed two of his large-scale dramatic compositions into works of absolute music in sonata form. I conclude with a discussion about the results of using form-functional theory for the analysis of unconventional sonata forms.

Abstrait:

Cette thèse contient deux articles de séminaire élargis à propos de la forme sonate. Elle comprend des analyses de la sonate op. 54 de Beethoven et de la version originale de la quatrième symphonie de Prokofiev, op. 47 (premier mouvement), basée sur son ballet *Fils Prodigue.* J'utilise la théorie forme-fonctionnelle pour analyser les deux œuvres, en me concentrant sur les aspects non conventionnels de la forme de chaque œuvre. Dans l'introduction, j'examine aussi des œuvres antérieures de ces compositeurs: la sonate op. 10 no. 2 de Beethoven et la troisième symphonie op. 44 de Prokofiev. Dans les sonates de Beethoven, j'explore certaines des similitudes structurelles et tonales entre les deux œuvres et dans les deux symphonies de Prokofiev, je compare la façon dont Prokofiev a transformé deux œuvres dramatiques en œuvres absolues sous forme de sonate. Je conclus par une discussion sur les

résultats de l'utilisation de la théorie forme-fonctionnelle pour l'analyse de la forme sonate non conventionnelle.

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Next, I would like to thank my classmates Megan Danbrook and Vlad Praskurnin for their continued emotional support throughout my master's degree. Without them, this experience would have been much more difficult. I want to thank my brother, Garik, for always looking out for me no matter where either of us are in the world. And most importantly, I want to thank my mom and dad for giving me the freedom and opportunity to be the first in our family to attend university.

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Introduction: Beethoven's Op. 54 Sonata, Prokofiev's Op. 47 Symphony, and Their Precedents

This project examines two works, Beethoven's op. 54 piano sonata and Prokofiev's op. 47 symphony, first movement, which is based on his *Prodigal Son* ballet. Both the Beethoven sonata and the Prokofiev symphony movement are written in unconventional sonata forms. Although written in different eras, these two works contain similar deviations from a typical Classical sonata form, many of which will be explored in depth throughout this project. To introduce Beethoven's op. 54 sonata and Prokofiev's original fourth symphony, I will also briefly explore two other works, the finale of Beethoven's op. 10 no. 2 sonata and the first movement of Prokofiev's third symphony, which I believe look forward to both op. 54 and op. 47 respectively. I emphasize the importance of these preceding works because they feature many of the compositional ideas that will be developed in the later works. In *Beethoven's French Piano,* Tom Beghin makes a connection between the finale of op. 54 and the finale of Beethoven's op. 26 sonata in A flat major, based on the similar running sixteenth-note rhythms throughout both movements.[1] However, these two pieces are written in different forms, the finale of op. 54 being in sonata form and the finale of op. 26 being in rondo form. I draw a connection between op. 10 no. 2 and op. 54 instead because the formal layout and significant key regions in op. 54 are already present in the earlier op. 10 no. 2. By looking at this earlier piece, I will show what Beethoven kept the same in both pieces and what he changed or expanded. Prokofiev, before writing his fourth symphony, used the music from his earlier opera *The Fiery Angel* in his third symphony, op. 44. His compositional idea of using existing music in a different genre is the same in both the ballet and the opera, but he applies this strategy in different ways in the two

[1] Tom Beghin, *Beethoven's French Piano* (Chicago: The University of Chicago Press, 2022), 330.

symphonies, resulting in different types of sonata forms. The comparison between Prokofiev's third and fourth symphonies will show that the compositional process behind both symphonies was different, despite the similar idea of transforming programmatic works into absolute ones.

Throughout this thesis, I will exclusively use Caplin's theory of formal functions for all four works discussed because the theory can be used successfully in both Classical and neo-Classical compositions.[2] Since I have worked closely with Caplin on his Beethoven sonata project for the past three semesters, I also want to clarify the extent to which that work influences this project. First, we discussed both the op. 54 and op. 10 no. 2 finales in our meetings. However, I wrote my paper about op. 54 before beginning my work with Caplin, and our meeting about op. 54 has not changed my original analysis. I also prepared the analysis of op. 10 no. 2 for one of those meetings and, of course, received feedback on my analysis. In this introduction, however, I will not discuss phrase structure or formal functions in any detail, as I am only focusing on major formal and tonal similarities between the two pieces. Finally, we never made comparisons between pieces in those meetings, and I want to clarify that I made the connection between these two finales myself. In short, none of the work from those meetings can be found in this project.

The exposition sections of the finales of both op. 54 and op. 10 no. 2 share many structural similarities, which I highlight in example 0.1. First, both movements are written in F major, which of course, does not affect form, but creates an audible connection between the two pieces. Both movements contain all of the usual components of an exposition, including a main theme, transition, and subordinate theme, and in both pieces, these sections are all fused into a single thematic unit. The main theme functions of both movements are expressed by a repeated

[2] William E. Caplin, *Analyzing Classical Form: An Approach for the Classroom* (Oxford: Oxford University Press, 2013).

initiating unit, a compound basic idea in op. 10 and a repeated presentation in op. 54. The initiating units then continue on to model/sequence technique. In op. 10, Beethoven writes an ascending stepwise sequence while in op. 54, Beethoven writes a Romanesca progression instead. The sequential passages in both cases represent both the continuation function of the main theme and the transition function of the exposition because there are no cadences to end the main theme in either piece. Both sequences are followed by separate cadential ideas which quickly arrive at a PAC in the dominant key of C major. In Caplin's theory, these PACs represent the end of the subordinate theme functions. Thus, the two short expositions contain the beginning of a main theme, the medial function of a transition, and the end of a subordinate theme. Normally, all of these themes end with their own cadential closure, but in these pieces, they are all compressed into one unit. The closing sections, from mm. 23–32 in op. 10 and from mm. 13–20 in op. 54, cannot be mistaken for a subordinate theme because they occur after the PACs and because they both prolong C major tonic harmony by a pedal point, as is typical in a closing section. These structural similarities show that these two expositions are constructed using the same formal and tonal plan.

Op. 10 no. 2, ii

Exposition (mm. 1–32)

Main Theme	**(Transition)**	**Subordinate Theme**	**Closing Section**
Presentation (mm. 1–8)	Model/Sequence (mm. 11–14)	PAC (m. 18)	mm. 23–32
F major		C major	C major

Development (mm. 33–86)

Pre-Core/Core	**HC/St on V**	**False Recap**	**Model/Sequence**	**V arrival**
A flat major	D major (m. 63)	D major	V7 chain (mm. 77–80)	F major (m. 83)

Recapitulation (mm. 87–150)

Main Theme		**(Transition)**	**Subordinate Theme**	**Closing Section**
Presentation		Model/Sequence and HC (mm. 112–115)	PAC (m. 125)	
F major	B flat major/minor	F major	F major	F major

Op. 54, ii

Exposition (mm. 1–20)

Main Theme	**(Transition)**	**Subordinate Theme**	**Closing Section**
Presentation (mm. 1–8)	Model/Sequence (mm. 9–11)	PAC (m. 13)	mm. 13–20)
F major	(Romanesca)	C major	C major

Development (mm. 21–114)

Pre-core	**Core**	**Model/Sequence**	**HC/St on V**	**Model/Sequence**	**V arrival**
A major	G major (mm. 45–60)	C5	D flat major (m. 75)	V7 chain (mm. 88–95)	F major

Recapitulation (mm. 115–161)

Main Theme		**(Transition)**		
Presentation		(Romanesca) and HC	Model/Sequence	V arrival
F major	B flat major/minor	F major (mm. 123–134)	Stepwise Sequence (mm. 134–145)	F major (m. 152)

Coda (mm. 162–188)

Main Theme	**Subordinate Theme**	**Closing Section**
Presentation	IAC (m. 180)	(mm. 180–188)
F major	F major	F major

Example 0.1. Form Comparison of op. 10 no. 2, ii and op. 54, ii

The development sections of both movements also contain many similarities, most obviously seen in their structural key regions. The development pre-core of op. 10 no. 2 begins directly in the key of A flat major, a minor third above F major. The core section then leads to a

half cadence in D major in m. 63, a tritone away from A flat major. The D major section, which is based on the music of the closing section, then moves through a short descending fifths sequence in mm. 77–80, before arriving at the home key dominant in m. 83, leading to the beginning of the recapitulation in m. 87. A more expansive but similar version of this scheme appears in op. 54. Beethoven begins the development directly in A major, instead of A flat major, and its core section leads to a half cadence in the key of D flat major instead of D major. A much more expanded descending fifths passage then similarly leads to a dominant arrival, leading back to the return of the main theme in F major. In both developments, Beethoven confirms distant keys from the F major tonic (A flat major, A major, D flat major, and D major), but in op. 54, the major third interval plays a more important role in the organization of the key regions since all of the main keys are a major third apart (F-A-D flat-F). In op. 10, the interval pattern is not as consistent, but the key changes create the same distant effect as they do in op. 54.

The recapitulation sections are once again structurally similar in both movements, but Beethoven expands the recapitulation much more in op. 54. The recapitulation of op. 10 no. 2 begins in the home key of F major with the main theme, but quickly shifts to B flat major in m. 103. This shift to the subdominant leads to a diatonic sequence by fifths in mm. 112–115, followed by a half cadence in F major in m. 121. A continuation phrase then leads to the final PAC in F major in m. 125, marking the structural end of the recapitulation before the closing section. The structure of the recapitulation of op. 10 no. 2 thus contains the main theme in the home key, a shift to the subdominant region, model-sequence technique, a half cadence in the home key, followed by a PAC in the home key. In op. 54, the recapitulation begins the same way with the main theme in F, shifts to B flat major, but then moves through a much longer and more

developmental sequential passage, followed by a smaller sequential passage that moves very far from the home key, all the way to G flat major, the flat II region. This sequence leads to a half cadence in the home key, which corresponds to the half cadence in op. 10 no. 2, and instead of ending the recapitulation with a PAC in F major, Beethoven ends the recapitulation on a long standing on the dominant in the home key. In op. 54, Beethoven transforms a more typical recapitulation, found in op. 10 no. 2, into one that becomes more like a development section by straying into distant keys, arriving at the home key dominant, and then prolonging the dominant as in a typical development section. This major deviation in the recapitulation makes the coda an essential part of the form of op. 54, while op. 10 no. 2 has no coda section at all.

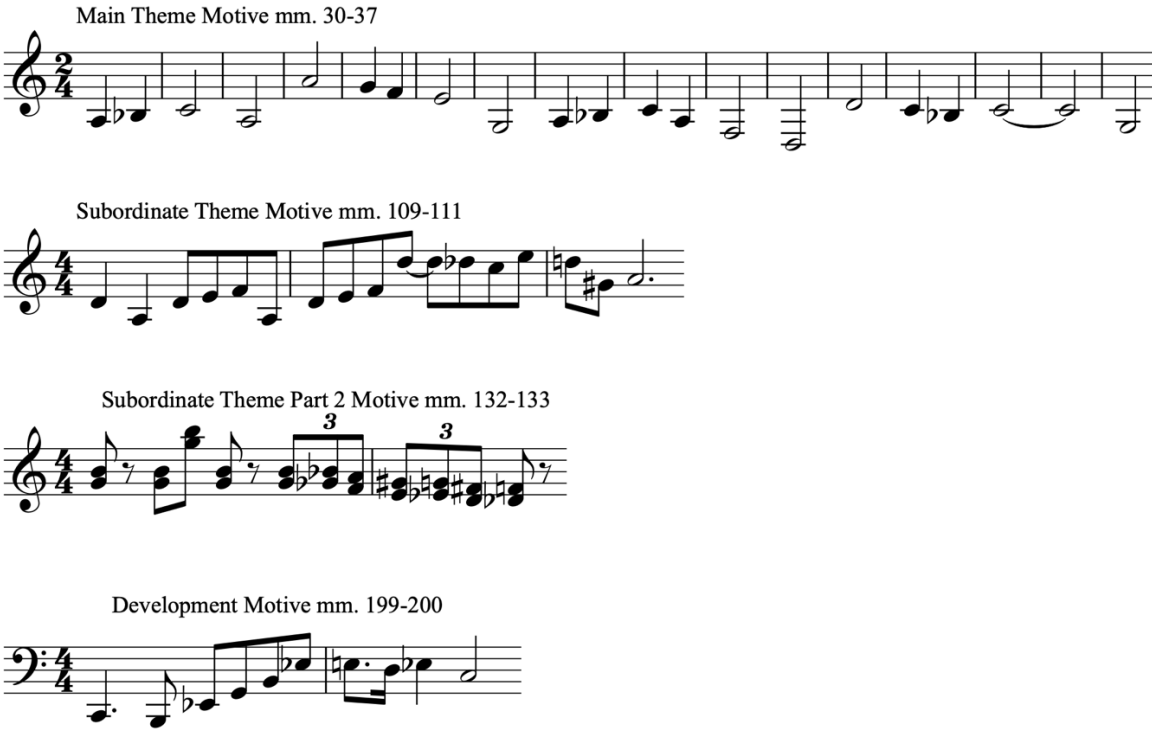
The comparison between these two works shows that Beethoven had already created the compositional model for his op. 54 finale in op. 10 no. 2, written in 1798, six years before op. 54 was published. As pointed out by Donald Francis Tovey, Op. 54 is often considered an outlier in Beethoven's piano sonatas because the form is so unconventional.[3] Although op. 54 is a unique sonata in Beethoven's works, I show that Beethoven actually revisits one of his older pieces and expands its formal design instead of creating a new form that is unlike any of his other sonatas.

Next, I will briefly explore the origins of Prokofiev's third symphony and compare it to his fourth symphony. Prokofiev used the music from his opera *The Fiery Angel* in his third symphony after realizing that the opera was not going to be performed.[4] By reusing some of the music in an absolute work, Prokofiev could still gain a performance of the opera in a different way. According to Lyn Henderson, Prokofiev strings together long, unchanged sections of the

[3] Donald Francis Tovey, *A Companion to Beethoven's Pianoforte Sonatas: Complete Analyses* (New York: AMS Press, 1976), 169.

[4] Marina Frolova-Walker, "Monsieur Prokofieff: Prokofiev in the French Context," in *Rethinking Prokofiev,* ed. Rita McAllister and Christina Guillaumier (New York City: Oxford University Press, 2020), 73.

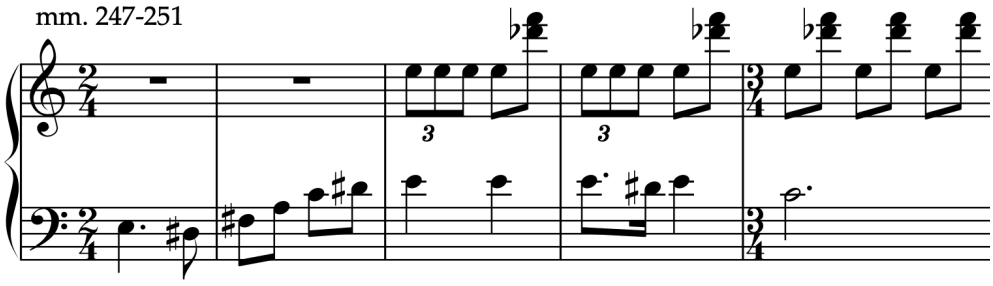
opera when he transformed *The Fiery Angel* into a symphony.[5] I will explore how this compositional process results in an unconventional sonata form. Example 0.2 shows the main motives of each section of the form. The reason motives play an important role in this work, rather than more traditional theme types, is because Prokofiev combines the motives into contrapuntal combinations throughout the first movement. The exposition consists of a main theme and a subordinate theme with two contrasting sections. Due to the highly chromatic harmonic language, and lack of a clear modulation within the exposition, or key regions in general, it is difficult to speak of a transition section in a Classical sense, and I do not identify one in the form in my analysis. In the development, one additional motive appears, which I label as the development motive, since it is not found in the exposition.



Example 0.16. Prokofiev, Symphony no. 3, Main Motives

[5] Lyn Henderson, "How the Flaming Angel Became Prokofiev's Third Symphony," *The Music Review* 40 no. 1 (1979): 49-52.

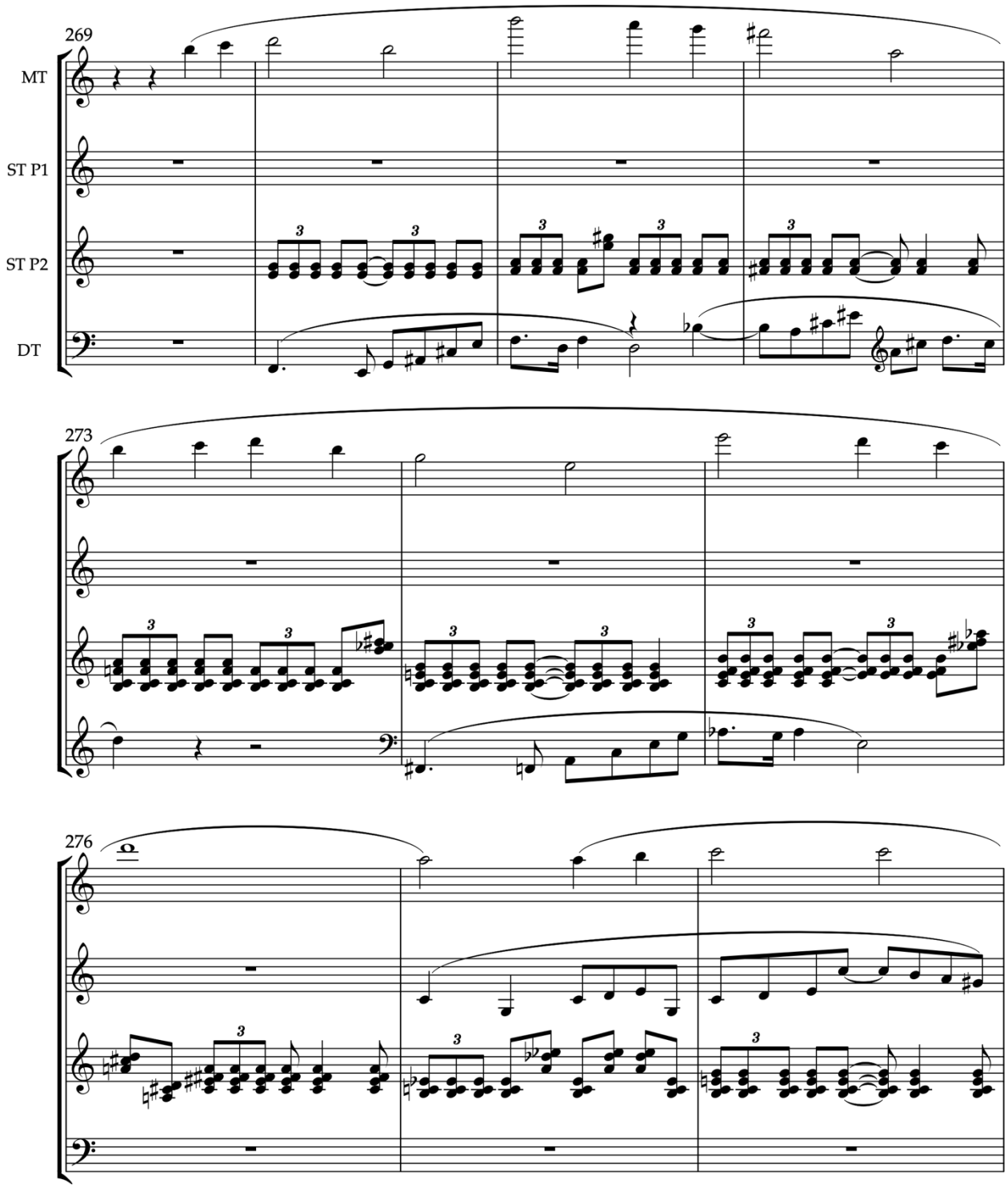
Example 0.3 illustrates Prokofiev's unusual motivic work in the development section. After the development motive is introduced, Prokofiev combines it with the second part of the subordinate theme, although both motives are altered slightly. Prokofiev only uses the first half of the motive of subordinate theme part two, and he adds an extra measure in the third measure of the development motive. The intervals of each motive are also slightly different. Originally, the subordinate theme contained a leap of an octave but in the development, this leap is changed to a minor ninth. When the development motive first appears, it outlines a C minor/major chord, but when combined with the subordinate theme, as shown in example 0.3, it outlines a diminished seventh chord, starting on D sharp instead. These changes to the pitch content create more dissonance within each motive, but the changes to the rhythmical features of each motive prevent dissonances when the two motives are combined.



Example 0.17. Combination of Subordinate Theme, Part 2, and Development Theme

Finally, the recapitulation features all of the main motives found in both the exposition and development sections. However, instead of writing a typical rotation of the main themes in the order in which they appeared in the exposition, Prokofiev combines these motives in counterpoint. Example 0.4 shows a reduction of the first few measures of the recapitulation, excluding all of the parts that do not contain the main motives. The slurs in the example indicate where each motive begins and ends. First, the main theme enters with the development motive, as well as part two of the subordinate theme with its recognizable triplet rhythms. In m. 278, the

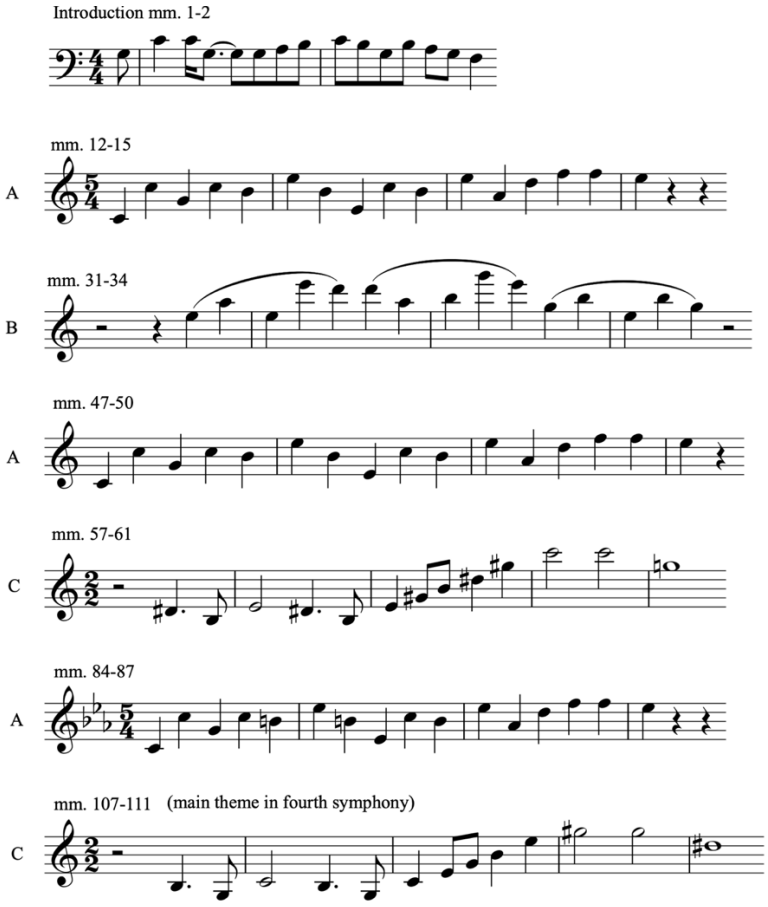
first part of the subordinate theme appears together with the repeat of the main theme, along with the second part of the subordinate theme providing harmonic support. The main motives appearing together results in the recapitulation being more compressed in length as all of the typical sections of a recapitulation are fused into one large section and all of the themes begin simultaneously. This movement contains several major deviations from a typical sonata form. First, the formal boundaries are not as clear as they ordinarily would be. It is not possible to rely on key regions or cadential closure to find the boundaries between sections as would be the case in a Classical sonata form because none of those features are clear or even present at all in this work. Second, motives play a much more important role in the construction of this movement than they typically do in Classical sonata form. The recapitulation illustrates the most extreme example of the motivic work found in this movement.



Example 0.18. Symphony no. 3, Main Motives in Counterpoint

In the final section of this introduction, I will discuss the transformation of Prokofiev's *Prodigal Son* ballet into the first movement of his fourth symphony, op. 47. This process is much

simpler, compared to the third symphony. First, Prokofiev restricts the music of the first movement of the fourth symphony to the fourth number of the *Prodigal Son* ballet. He also uses only one theme from this number, which becomes the main theme of the symphony. The form of the number could be understood as a loose rondo with an introduction, summarized in example 0.5. Since the ballet is written in a neoclassical style, the symphony features more conventional Classical forms, when compared to the previous third symphony. Each theme in the symphony is confined to its own section and contains its own cadential closure, unlike what happened in the previous symphony, which involved counterpoint between themes and blurred boundaries between sections. The harmonic progressions of the fourth symphony are also much more diatonic compared to the dissonant writing of the third symphony.



Example 0.19. Structure of Prodigal Son *no. 4*

Analysis of these four works by Beethoven and Prokofiev reveals that both composers revisit two interesting compositional ideas. Beethoven develops an unconventional sonata form, featuring a minimal exposition compared to a longer development and recapitulation. In op. 54, Beethoven keeps the same formal and tonal layout as in op. 10 no. 2, but he expands the development and recapitulation sections much more than he did in the earlier work. The two Prokofiev symphonies are both constructed out of larger programmatic works. The sonata form movements, however, result in completely different musical and formal aesthetics. In the third symphony, large sections of the opera are combined to create a form that resembles sonata form but mostly departs from it. In the fourth symphony, based on the *Prodigal Son* ballet, Prokofiev uses less music from the ballet, but writes more conventional Classical theme types. In this case, the music from the ballet is molded to follow the conventions of sonata form, whereas in the third symphony, the components of sonata form are not easily audible on the surface but could be revealed by close inspection of moments of thematic returns, such as the return of the main motives in the recapitulation. In the following sections of this thesis, I will explore Beethoven's op. 54 sonata and the first movement of Prokofiev's original fourth symphony in much more detail, without further comparison to these two earlier works.

Chapter 1: Beethoven's op. 54 Piano Sonata: A Form-Functional Analysis

Beethoven's op. 54 piano sonata consists of two movements, both of which contain unconventional theme types and phrase structures. In this paper, I will present my form functions-based analysis of both movements, with an emphasis on the finale in sonata form, where I will also discuss three different analyses by Donald Francis Tovey, Charles Rosen, and Martha Frohlich.[6][7] Frohlich mentions that the first movement references various forms, such as minuet and trio form, theme and variations, and rondo form, without fully expressing any of them. She herself has not written about the first movement in her article, but I will investigate the idea of three simultaneous forms in this movement through the lens of form-functional theory. The second movement, however, is in sonata form, but it contains several unconventional features including a main motive that dominates the entire movement and perpetual motion. These elements result in unconventional theme types in this movement. The goal of a comparative analysis of the finale is to show how different analytical approaches consider these stylistic issues. As we shall see, the finale offers more structural differences between analyses than we would normally expect in a sonata form movement. In this paper, I will present my analysis of the first movement, followed by my analysis of the finale, which I will then compare to the three other analysts' interpretations.

Since the form of the first movement is not immediately clear, I will first discuss each section of the movement separately before attempting to understand the overall form. The main

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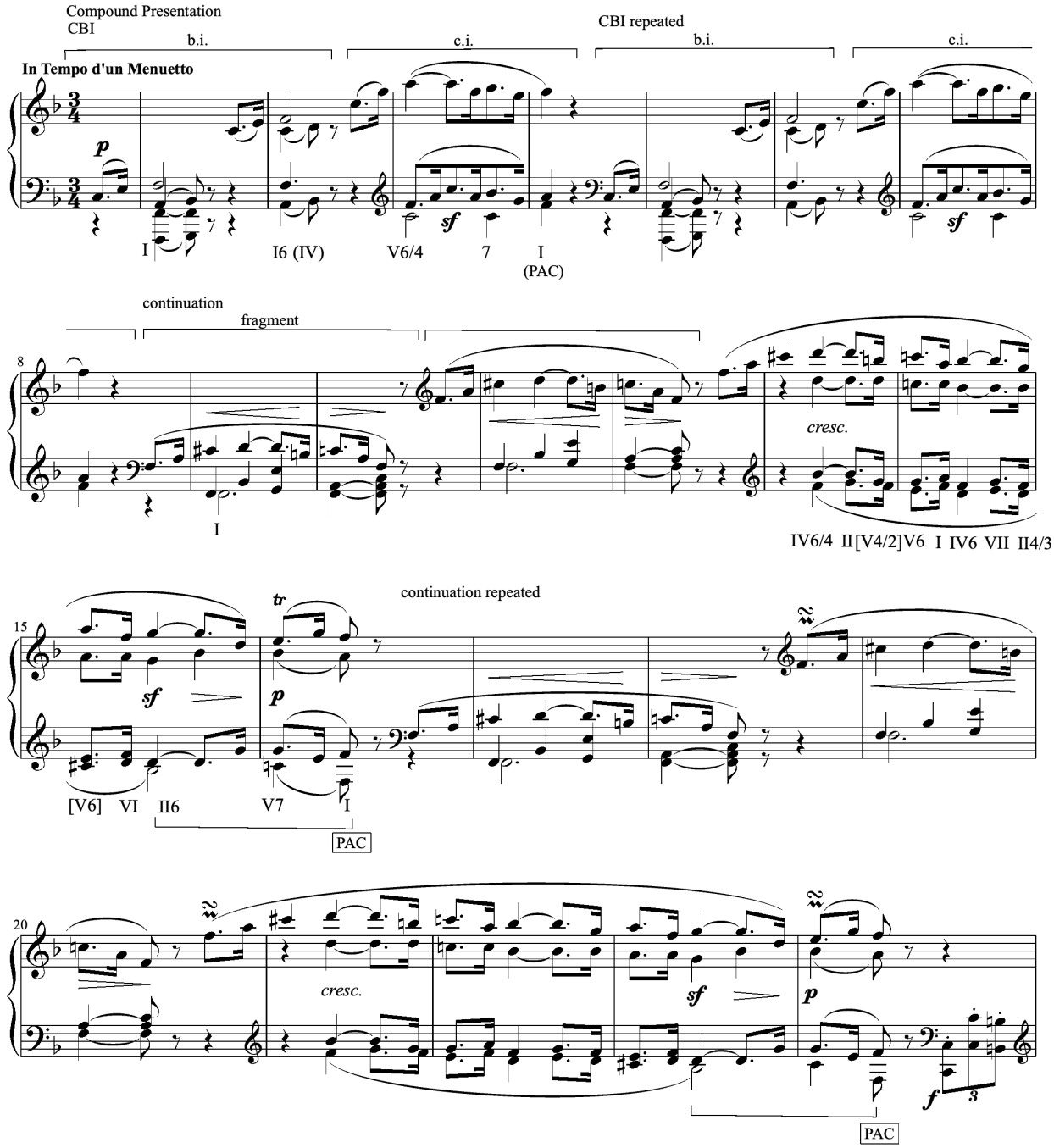
[6] Donald Francis Tovey, *A Companion to Beethoven's Pianoforte Sonatas: Complete Analyses*, (New York: AMS Press, 1976). Charles Rosen, *Beethoven's Piano Sonatas: A Short Companion*, (New Haven: Yale University Press, 2002). Martha Frohlich, "Beethoven's Piano Sonata in F Major Op. 54, Second Movement: The Final Version and Sketches." *The Journal of Musicology* 18, no. 1 (2001): 98–128.

[7] William Earl Caplin, *Analyzing Classical Form: An Approach for the Classroom* (New York: Oxford University Press, 2013).

theme (mm. 1–24), shown in example 1.1, is the most tight-knit section of the piece.[8] This theme is structured as a compound sentence with exact repetitions of most formal functions. The opening four-measure compound basic idea is repeated exactly in mm. 5–8, and the eight-measure continuation is repeated in mm. 17–24. This theme contains unusually symmetrical and disjunct units, divided by rests. First, a one-measure fragment and its repetition make up the basic idea, followed by a two-measure contrasting idea in m. 3, which together form a four-measure compound basic idea. The four-measure idea is then repeated, creating a compound presentation, which is followed by an eight-measure continuation in mm. 9-16 that is also fully repeated (mm. 17-24). The extra repetition in this theme creates a pattern that begins with a one-measure fragment, which grows into an eight-measure phrase over the course of the theme. In addition, the repetition in this theme results in more authentic cadences than is typically seen in a main theme. The compound basic idea ends with a PAC in m. 4 and in m. 8 after its repetition, followed by two more PACs after the continuation and its repetition in mm. 16 and 24. The first PACs must be considered PACs of limited scope and the latter are structural PACs that end the main theme. Thus, the repetition in the main theme, which results in cadential redundancy may be understood as a loosening device in an otherwise tight-knit and symmetrical theme. Lastly, the tempo marking of the movement, *In Tempo d'un Menuetto*, and the characteristic minuet rhythms and pick-up figure, all suggest that the movement will be in minuet form. As the movement goes on, we understand that these minuet and trio elements never materialize into a true minuet and trio movement.

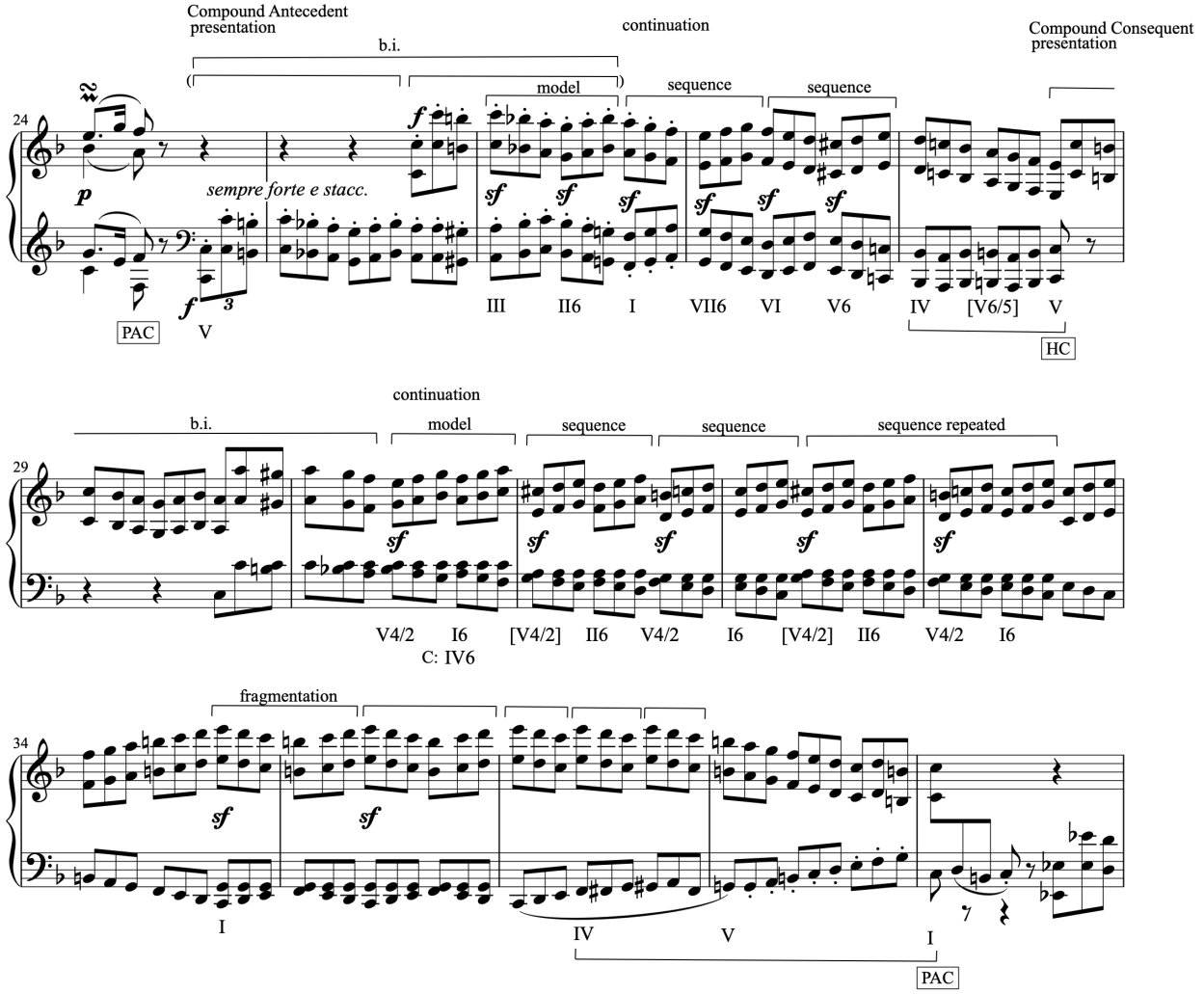
[8] I would like to thank Craig Sapp for creating the XML files of Beethoven's piano sonatas, which I acquired from William Caplin. I use these files for my annotated examples.



Example 1.1. Main Theme, mm. 1–24

The second section, shown in example 1.2, bursts into a contrasting and homogenous texture, typical of a trio section. This section is organized as a compound period with more loosening devices than found in the main theme, including an unusual phrase structure, imitation,

and hemiola. This section begins on dominant harmony, still in F major, which is more unstable than beginning with a root position tonic. This opening harmony is significant because it suggests references to a few different forms in this section. The triplet rhythms and contrasting dynamics are typical of a trio, but starting with and prolonging dominant harmony is more typical of a middle section within a theme. If the minuet theme were to return after this section, this section would be understood as the middle section of the minuet. However, since the minuet does not return immediately after, the trio elements of this section create the effect of the beginning of a new section rather than the middle function of the previous theme. Now, looking at the phrase structure, I identify a two-measure basic idea in mm. 25–26, followed by a two-measure continuation containing descending stepwise model/sequence technique, leading to a half cadence on the third beat of m. 28, a weak beat in the measure, caused by a persistent two-beat hemiola. The four-measure compound antecedent is followed by a ten-measure consequent, which is extended by more model/sequence technique and extra tonic prolongation in C major, before leading to a PAC in C major in m. 38. The asymmetrical design of this theme creates contrast with the symmetry of the main theme. Beethoven extends the consequent with a new descending fifths sequence starting in m. 31, which is then repeated in mm. 32–33. The model emphasizes the two-beat hemiola that is characteristic of this section. Starting in m. 33, Beethoven prolongs tonic harmony for three measures with a fragmentation process that begins with two two-beat fragments, followed by three single beat fragments. This additional tonic prolongation confirms the C major key region and creates a distinction between the sequential progression and the cadential progression, making the PAC in m. 38 unambiguous because it is preceded by a distinct cadential progression and also because it arrives on a downbeat, unlike the previous half cadence in this section.



Example 1.2. Second Theme, mm. 24–38

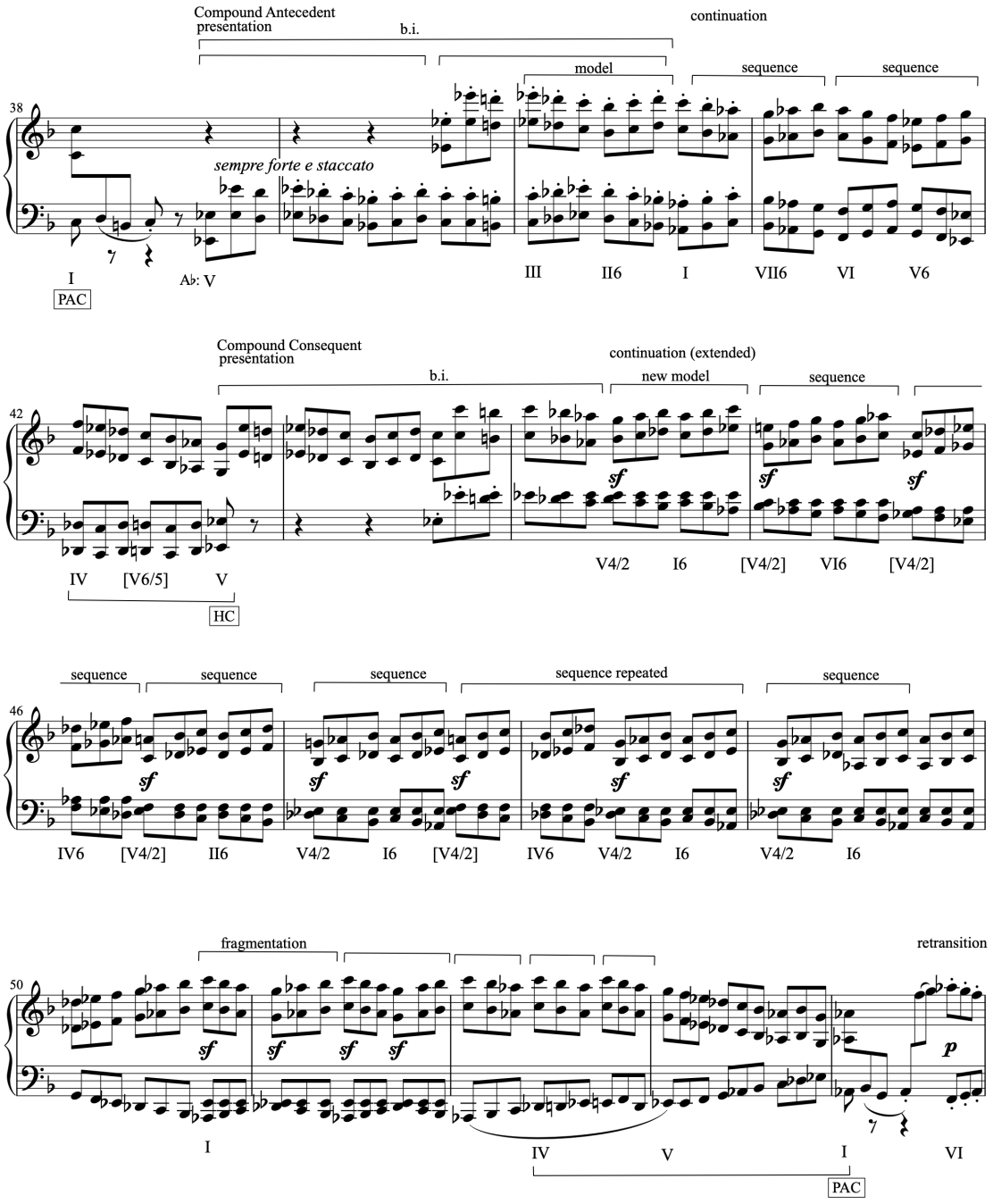
Although this section resembles a trio section with its character and style, it is not a true trio because just like the main theme, it is not in minuet form. It does not contain its own contrasting middle section and recapitulation (the music that follows is a near exact repetition of this theme in a different key region). Another possible understanding of the loose organization of this section, caused by the opening dominant harmony, asymmetrical phrase structure, and hemiola is a transition/subordinate theme section, more typically seen in a rondo. This section emphasizes the continuation functions of both the compound antecedent and consequent, rather than the initiating basic idea because the single basic idea forms a two-measure presentation,

whereas the continuation function is extended to eight measures in the consequent. Having a single statement of the basic idea, or even the omission of an initiating function altogether is much more common in a transition section rather than the beginning of a trio section.[9]

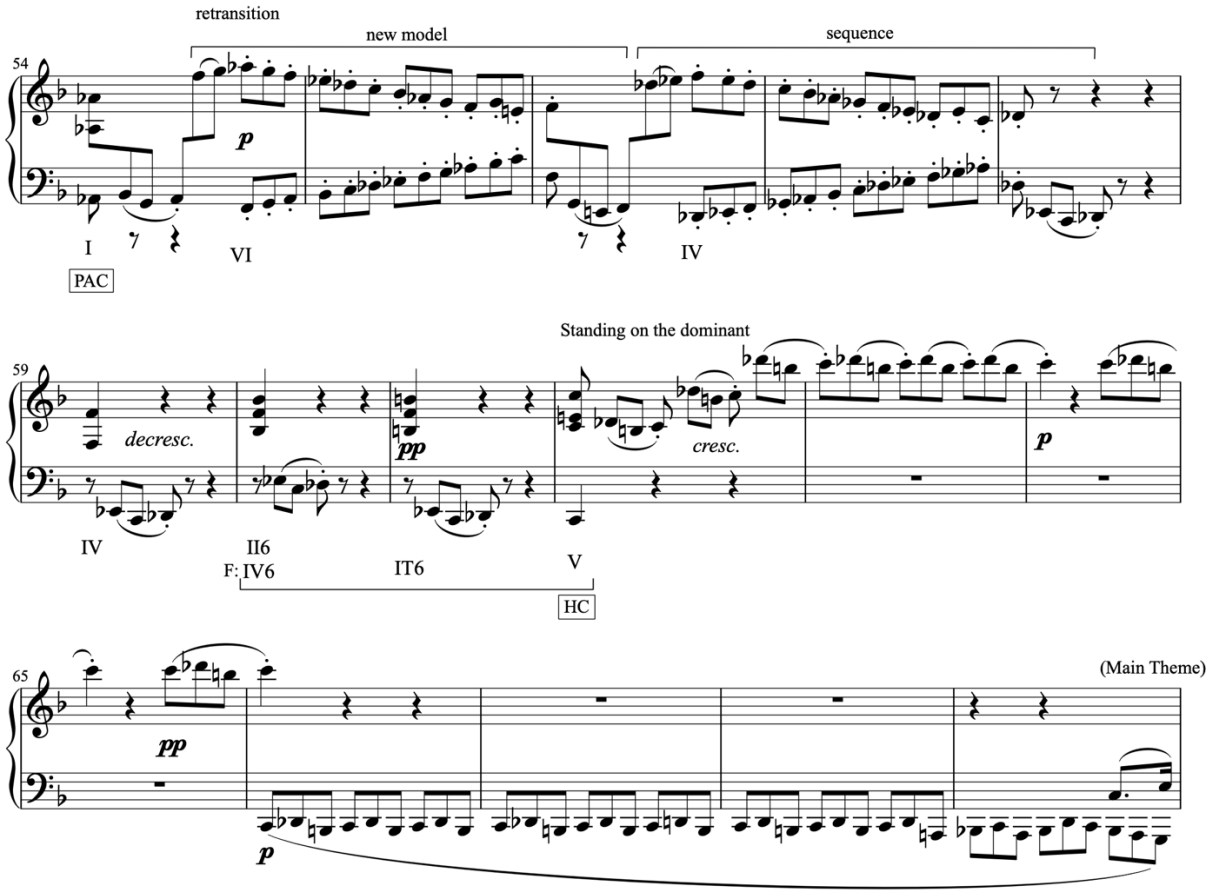
As mentioned before, the following material, beginning in m. 39 and shown in example 1.3, is the same theme transposed to the key of A flat major. Beethoven makes an adjustment to keep the music in A flat major for the entire duration instead of modulating to the dominant of A flat at the end, which would mirror the previous section. The compound antecedent is transposed exactly, but the compound consequent is extended by a new sequence. The two-beat model occurs five times, starting in m. 44, rather than three times, as in the previous section and the final two statements of the model are repeated the same way they were before. Beethoven also adds an additional repetition of the model in m. 49, ensuring that the following unit, a tonic prolongation in A flat, begins in the right metrical position and ends with a PAC on the downbeat of m. 54. With these changes, the compound consequent is extended from ten measures to twelve. In addition, this theme is followed by a retransition, consisting of a new two-measure model transposed down by a third, which leads to a half cadence and standing on the dominant in the home key of F major in m. 62, shown in example 1.4. The repetition of an entire theme is very interesting in the context of this piece because the function of this section is unclear. It is not a recapitulation of a potential trio theme because it is in the wrong key and because there was no contrasting middle section between these two statements. It is also not a variation of the previous theme because it is not varied in texture or rhythm, it is only transposed. However, this key region implies a potential interior theme function, being in a more distant key region. In other words, this section in A flat major stands in for a medial function in this movement, such as

[9] Caplin, *Analyzing Classical Form: An Approach for the Classroom*, 325.

the development of a sonata or an interior theme in a rondo. This function is only expressed by its key region and emphasized by the retransition and standing on the dominant before the return of the main theme, two techniques which are typically seen after a development or interior theme.



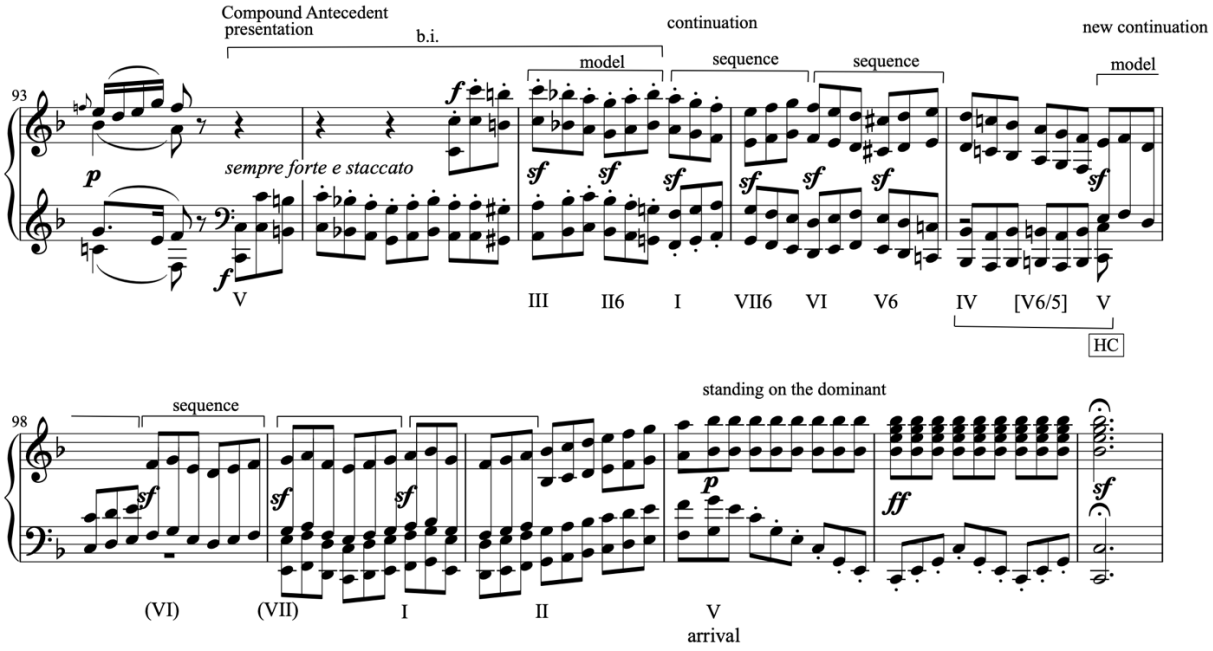
Example 1.3. Second Theme Transposed, mm. 38–54



Example 1.4. Retransition and Standing on the Dominant, mm. 54–69

The main theme returns in m. 70, creating the effect of a recapitulation by occurring after a retransition and standing on the dominant. This section is shown in example 1.5. Beethoven also begins to add variations to the main theme in the form of quicker rhythms and accented non-chord tones, which implies theme and variations form in addition to the other forms mentioned above. Only this main theme appears varied and never the second theme so although an alternating theme and variations form is suggested by the two alternating themes in this movement, it is not a true theme and variations form because only one of the themes is varied. The second theme reappears in m. 94, unchanged until the half cadence in m. 97, which in my analysis, represented the transition function. In the first appearance of this theme, the half cadence was followed by a consequent that led to a PAC, expressing subordinate theme function.

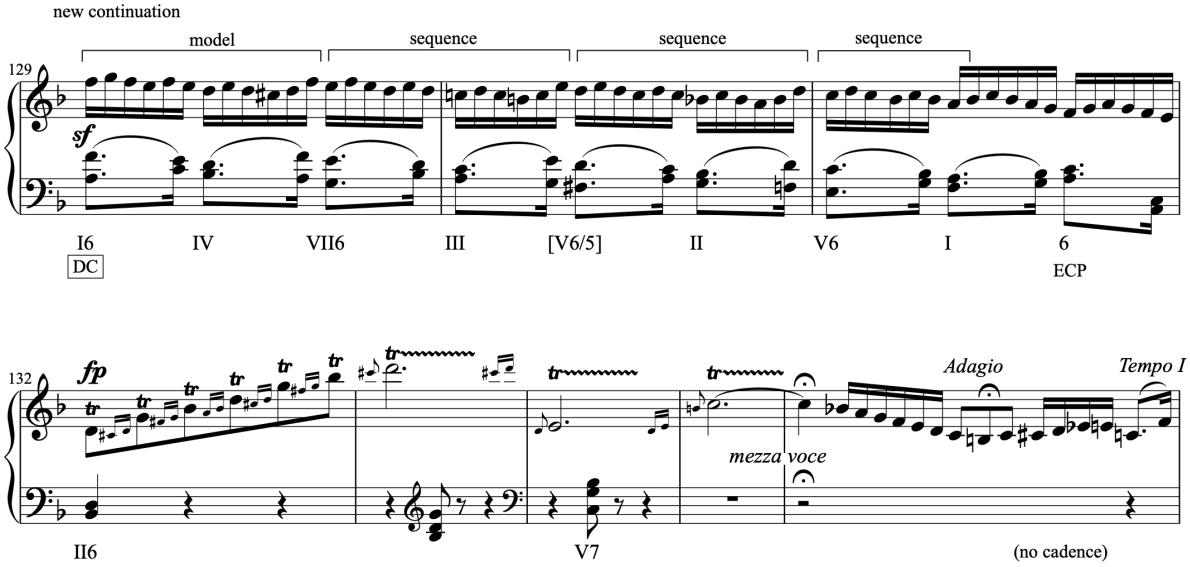
However, in this section, the consequent is replaced by a new continuation, which consists of model/sequence technique, followed by a dominant arrival in m. 101 and a four-measure standing on the dominant, all in the home key. Thus, the subordinate theme function has been omitted, which results in an abridged statement of this section and a lack of an expected PAC in the home key.



Example 1.5. Second Theme Return, mm. 93–103

The standing on the dominant and omission of the home key PAC dramatize the return of the main theme in m. 106, in the manner of a rondo, where the return of the main theme is an important defining marker of the form. This appearance of the main theme is more elaborated than the one preceding it, which at the same time, suggests another variation of the main theme. The final PAC, expected in m. 129, is postponed by a deceptive cadence, which leads to a new continuation and the beginning of the coda section, shown in example 1.6. This new continuation consists of a descending fifths sequence, leading back to a first inversion tonic harmony in m. 131, which also begins an expanded cadential progression. The dominant seventh harmony in m.

134 dissolves in the following two measures and instead, the main theme returns in m. 137, without eliding with a PAC.

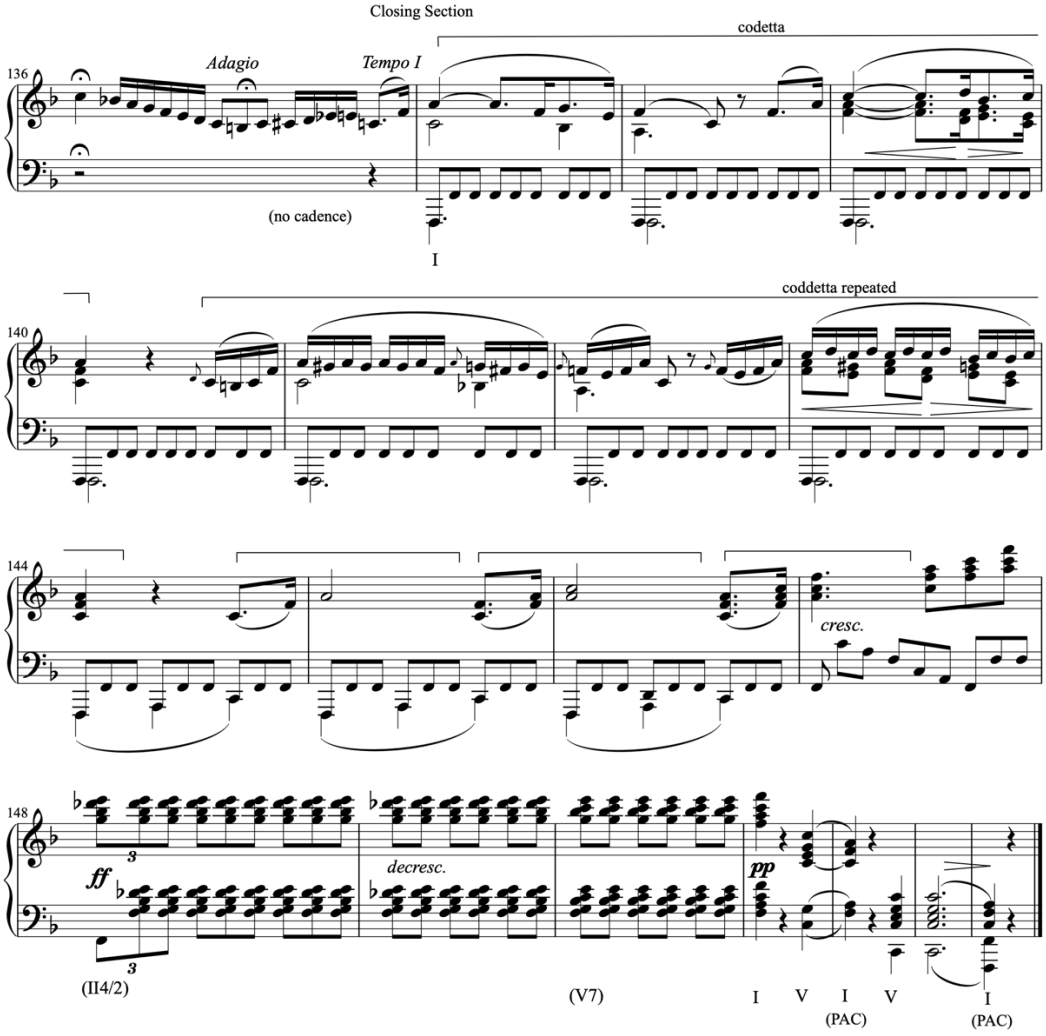


Example 1.6. Coda, mm. 129–136

I understand the return of the main theme in m. 137, found in example 1.7, as a closing section because it occurs over a tonic pedal and because it creates the effect of slowing the music down with a written out ritardando. M. 137 begins with triplet eighths and sixteenths, which slow down to eighths in m. 149, and end with quarters and half notes, broken up by rests at the very end. This technique brings the highly elaborated main theme back to its slower, fragmented rhythms. Frohlich mentions that in this section, the triplet accompaniment and the main theme melody unites the two contrasting themes of this movement.[10] The two themes also complement each other when they appear together. The main theme, for example, which was always broken up by rests, is now filled in with a more continuous texture achieved with the triplet rhythm of the second theme. And the second theme, which contained a homorhythmic texture and harsh

[10] Frohlich, "Beethoven's Piano Sonata in F Major Op. 54, Second Movement: The Final Version and Sketches", 101.

syncopated accents, appears in a melodic context for the first time, as an accompaniment to the first theme. Thus, this coda section achieves textural and rhythmic unity between the two contrasting themes. One element that is missing in this coda, however, is cadential closure in the home key, which was abandoned in m. 136. This deviation is interesting in this movement because originally, the main theme had an abundance of cadences, at the end of almost every four-measure unit. In the main theme, I understood this cadential redundancy as a loosening device, and here in the coda, Beethoven corrects the redundancy by writing the theme over a tonic pedal, not allowing any cadences.



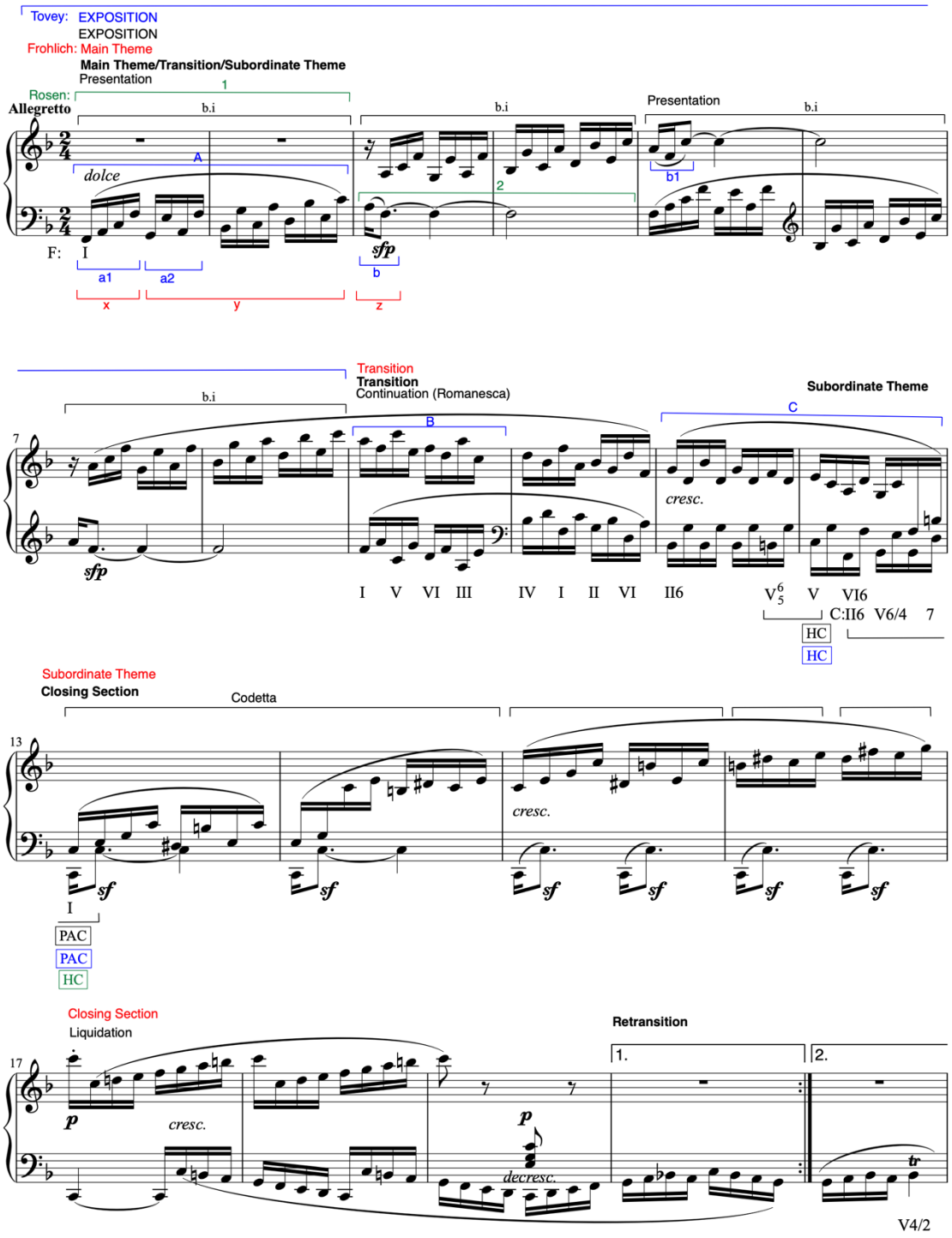
Example 1.7. Closing Section, mm. 136–154

The three different Classical forms suggested in this movement are summarized in example 1.8. In my analysis, I show how the different sections of the form can be understood as part of three different formal types simultaneously, based on key region, cadential articulation, rhythm, character, and specific patterns of thematic repetition, such as where in the form the main theme reappears. In this movement, Beethoven uses two different themes to create the implication of various forms. Now, I will explore how Beethoven constructs a sonata form movement out of an even smaller thematic unit, a single two-measure basic idea in the finale movement.

Theme	Minuet and Trio	Rondo/Sonata-Rondo	Theme and Variations
1 (mm. 1–24)	Minuet Section	Main Theme	Main Theme 1
2 (mm. 25–38)	Trio Section	Couplet 1: TR/ST Complex	Main Theme 2
2 (mm. 39–70)	Trio Section Transposed	Couplet 2: Interior Theme	Main Theme 2 variation 1
1 (mm. 70–93)	Minuet Recapitulation	Main Theme Recap	Main Theme 1 variation 1
2 (mm. 94–106)	Trio Section Abridged	Couplet 3: Transition	Main Theme 2
1 (mm. 106–129)	Minuet Section	Main Theme	Main Theme 1 variation 2
1 (mm. 129–155)	Minuet Section	Coda	Coda

Example 1.8. Summary of Three Forms of the First Movement

The entire exposition of the finale of op. 54 consists of 20 measures and contains minimal motivic differentiation. These two factors pose challenges for identifying the formal boundaries within the exposition. An annotated score of the exposition, with my analysis in black text, and the three other analysts' in different colors, can be found in example 1.9. This movement begins with a two-measure basic idea in the form of a tonic arpeggio and an ascending scale in broken sixths. This idea occurs four times, followed by a Romanesca progression in mm. 9–10, which will become a significant motive throughout the piece. A half cadence in the home key follows in m. 12 and immediately thereafter in m. 13, a second cadential progression modulates to and cadences in C major. Finally, a passage based on the opening motive prolongs C major with a pedal for the remainder of the exposition.



Example 1.9. Op. 54, Finale Exposition, mm. 1–20

Typically, an exposition contains a main theme, a transition, and a subordinate theme, all of which end with cadences. Since this exposition only contains two cadences, some of the usual components of the exposition are understood to be fused together. For example, the PAC in the

key of the dominant, C, concludes one specific unit, the subordinate theme, the PAC being a requirement of this function in the theory of formal functions. However, since the subordinate theme contains no initiating function, being minimally expressed by the cadential progression and PAC in the subordinate key, the subordinate theme is understood to be fused with the transition unit. In addition, the first cadence in the exposition, the half cadence in m. 12, represents the closing function of the transition. As a result, the main theme contains no closure, and is therefore fused with the transition. Consequently, the exposition in my analysis is understood as a main theme/transition/subordinate theme fusion, with the remaining material functioning as a post-cadential closing section, prolonging C major with a pedal point and liquidation.

Now that I have outlined my analysis of the main formal boundaries within the exposition, I want to provide more details about the harmony and phrase structure in this section. As mentioned before, the main theme consists of a basic idea stated four times, or more precisely, a repeated four-measure presentation occurring over tonic harmony. The Romanesca progression that follows results in half measure fragments, increased surface rhythm, increased harmonic rhythm, and a sequential harmonic progression, all of the characteristics of a continuation. Thus, the main theme function is expressed by a repeated presentation and a continuation (Romanesca), while the half cadence that follows in m. 12 represents the end of the transition function. The sentential structure of the main theme is loosened by the repetition of the presentation, which would not typically occur in a main theme. However, the extra repetition in this theme emphasizes the basic idea, which functions as the main motive of the movement. The subordinate theme contains a quick modulation to C (VI6=>II6), and a single authentic cadential progression, which both occur in the space of one measure. The closing section, starting in m.

13, first begins with a two-measure unit, and through a liquidation process, fragments into a one-measure unit, a half-measure unit, and finally into a scale, leading to the final gesture of the closing section, a leap down two octaves in the top voice in m. 19. This gesture is motivically significant because it breaks out of the continuous texture. A short retransition, through a V4/2 chord, leads to a repeat of the exposition, then into the development.

Frohlich, whose analysis appears in red text in example 1.9, identifies the same components of the exposition that I do. However, her analysis differs from mine regarding formal boundaries between each theme. Whereas I rely on cadential articulation regardless of thematic or motivic content, her analysis instead prioritizes thematic differentiation. One discrepancy in our analyses occurs regarding the interpretation of the PAC in C major in m. 13. In my analysis, this cadence marks the end of the subordinate theme function, whereas in her analysis, it concludes the transition. Frohlich prioritizes the textural change in m. 13 and emphasizes the structural importance of the new material beginning in this measure. She overlooks the half cadence in m. 12 possibly because this cadence does not close rhetorically, being in the middle of a continuous sixteenth note texture. The PAC in m. 13 is then followed by a subordinate theme in her analysis, which I understood as a closing section. Although the musical content beginning in m. 13 differs from the main theme, it occurs over a single tonic harmony and does not conclude with a PAC, which would not be possible in a formal functions-based analysis of a subordinate theme.

One passage where our analyses are similar occurs in m. 9, the beginning of the Romanesca progression. We both analyze this measure as a transition but in different ways and perhaps for different reasons. For me, this passage functions as a continuation in the main theme which then retrospectively becomes a transition after closing with a half cadence in m. 12, but

for Frohlich, m. 9 marks the beginning of the transition. My transition does not have a clear beginning because the main theme did not end with a cadence but, since Frohlich focuses on motivic differentiation in her formal analysis, m. 9 clearly introduces a new unit with a different harmonic and textural pattern. Another change of texture occurs in m. 17, which Frohlich analyzes as a closing section. By contrast, the same measure occurs at the beginning of a liquidation process in my analysis, which does not rely on textural changes. One other important difference in our analyses involves the analysis of grouping structure. The smallest grouping unit in my analysis is two measures, the opening basic idea. Frohlich takes this same unit apart into three component motives: x, y, and z (see example 1.9), and she understands every new theme that follows to be derived from these motives. This is an important stylistic difference in our analyses because she emphasizes short motives while I look for larger theme types. Her approach of analyzing the themes in this way thus emphasizes the contrapuntal style of the music.

Rosen's analysis of the exposition is interesting because he does not use sonata form terminology until he discusses the development section. He first breaks the main theme down into two motives: the arpeggio and scale forming motive 1 and the syncopation in m. 3 forming motive 2, a slightly different motivic analysis compared to Frohlich's, which consists of three different motives instead. Rosen's motive 1 is analogous to my two-measure basic idea even though a motive and basic idea are functionally different concepts. Rosen also considers Beethoven's slurs in the exposition. Motive 1 is often under a 2-measure slur, which could explain why Rosen does not break this idea down into smaller components. In mm. 7–10, however, a 4-measure slur connects the basic idea with the Romanesca, two different ideas. Although Rosen does not explicitly state that no new formal unit occurs within those four measures, the implication is that the four-measure slur forms a complete idea whereas Frohlich

and I both analyze a transition occurring in m. 9, in the middle of the slur. Structurally, Rosen's reading is different from mine, but this same slur also highlights my analysis of formal fusion between the main theme and transition functions because these two functions occur within one phrase of music, under one slur. One major difference in our analyses involves the PAC in m. 13. Here, Rosen finds a half cadence in the home key instead, and he then considers the remaining music as dominant prolongation; in other words, he does not recognize a modulation to the subordinate key. Rosen's analysis technically contains a single theme in the exposition: he does not identify a transition, a subordinate theme, or a closing section. In short, he would not seem to find most of the component elements of a sonata-form exposition. However, his use of motivic analysis, and his identification of a half cadence at the end of a non-modulating first section implies a Baroque binary form instead of a sonata exposition, which may explain why he avoids sonata form terminology at first.

Tovey also does not analyze this movement in sonata form specifically. His description of the movement is as follows: "Perpetuum mobile in 2-part polyphony on a single theme, with short archaic (melodic) Exposition, but extensive Development and Coda; running at a uniform pace which nothing can stop."[11] Tovey uses sonata form terminology in his analysis but often in a Baroque context. For example, he considers the exposition as an exposition of the first motive, in a contrapuntal sense, which consists of the first eight measures. Like Frohlich and Rosen, Tovey also uses motivic analysis but in a more detailed manner. He identifies short half-measure motives, which make up longer motives. For example, the first two measures consist of motive A, which he also subdivides into smaller motives: a1 and a2. One aspect in which Tovey's analysis is different from the other three involves the interpretation of the key region at the end

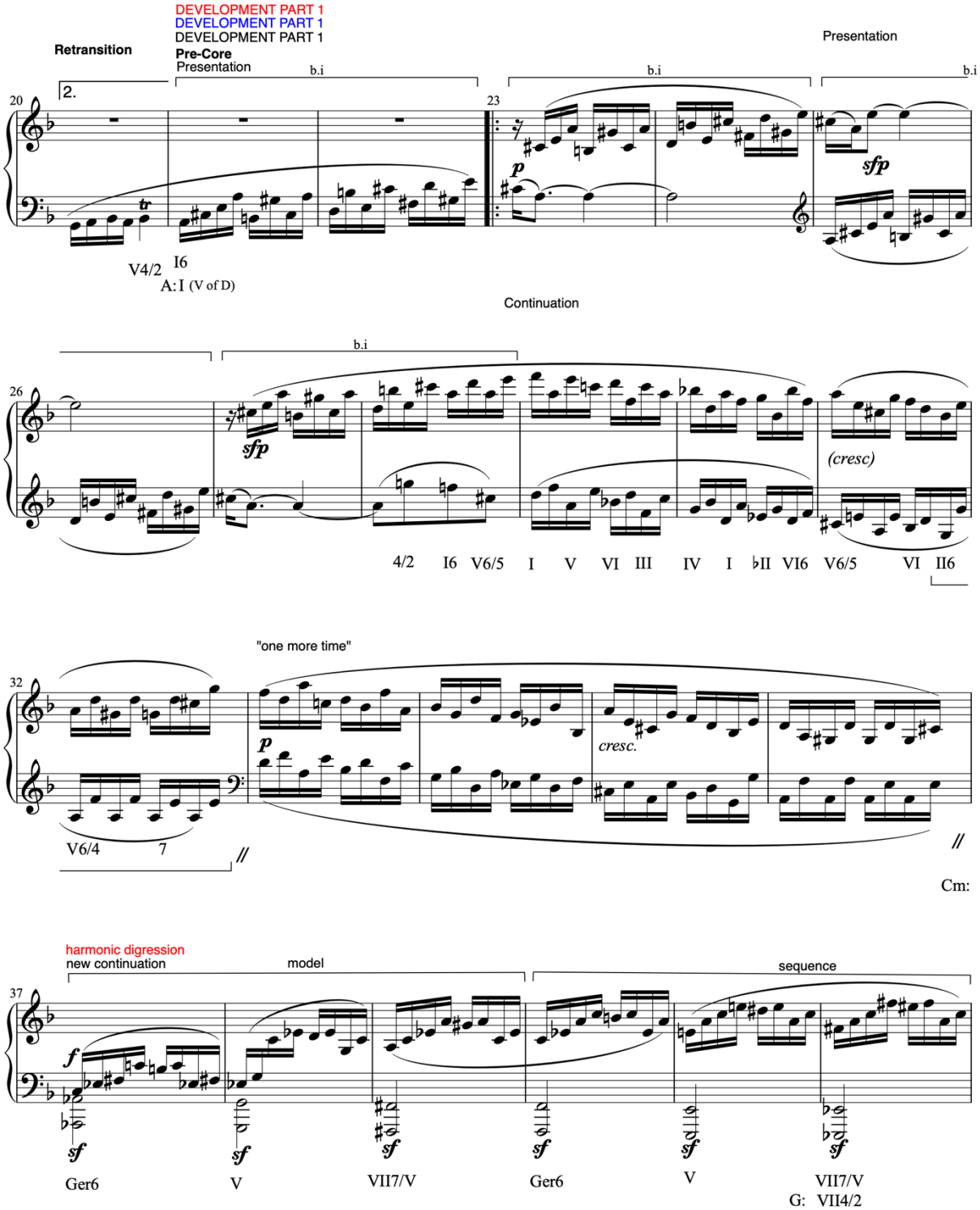
[11] Tovey, A Companion to Beethoven's Pianoforte Sonatas", 173.

of this section. Whereas the cadence in m. 13 is a PAC in mine and Frohlich's analysis and a half cadence in Rosen's analysis, Tovey's reading is ambiguous as he states, "there is no distinction between being on the dominant and in the dominant".[12] For this reason, Tovey's approach resembles Rosen's because he places greater importance on the motivic work, rather than cadential articulation and tonal regions. To summarize, Rosen and Tovey do not consider this first section as a true sonata form exposition whereas Frohlich and I, on the contrary, do identify a sonata form exposition, although our formal boundaries within the exposition are different.

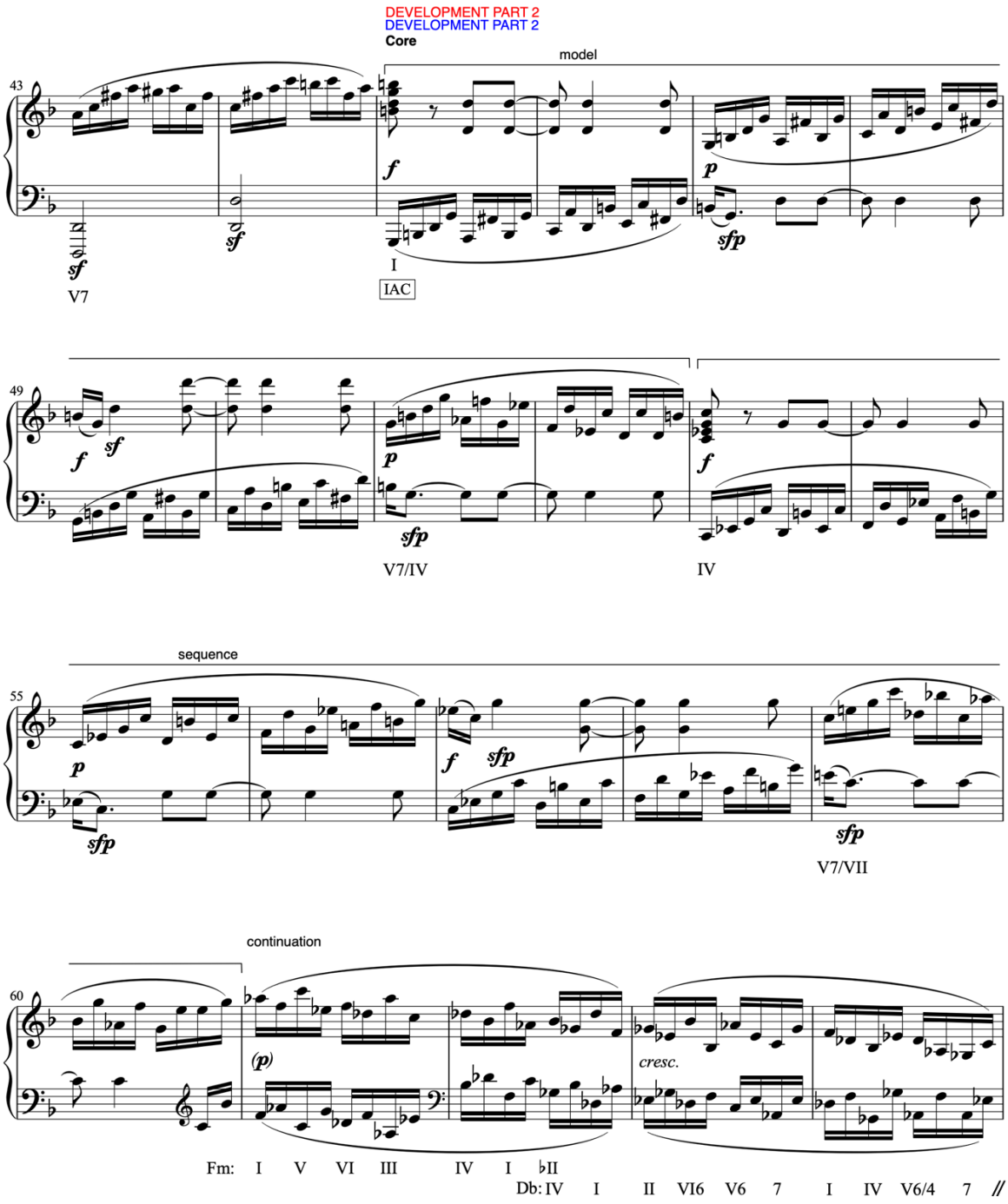
Let us now look at the development. As before, I present my own analysis and then consider how the other analysts understand this section. All four analyses are overlayed in the score in example 1.10. Compared to the exposition, the development is much longer, a situation that is relatively rare. First, the V4/2 chord in the retransition in m. 20 leads to the basic idea in A major, a major third above the home key; but as the music progresses, we understand this A major as dominant of D minor, the key in which the Romanesca and cadential progression, or the transition and subordinate theme fusion, appear in m. 29. Here, however, the cadential progression does not resolve, resulting in an evaded cadence in m. 37. This unit repeats and leads to a new continuation after a second evaded cadence in m. 37, avoiding closure altogether for the subordinate theme material. The new material, starting in m. 37, consists of a modulating sequence, built over a descending chromatic bass line, which cadences to G major with an IAC in m. 45, marking the end of the pre-core section (mm. 21–45). The core, starting in m. 45, contains an 8-measure model, which is sequenced down by a fifth once from G major to C minor. Instead of sequencing the model a second time, the Romanesca material reappears in F minor in m. 61, modulating to D flat major. This new key region is confirmed by an authentic

[12] Tovey, "A Companion to Beethoven's Pianoforte Sonatas", 174.

cadential progression but abruptly leads to new material in m. 65, following another evaded cadence.



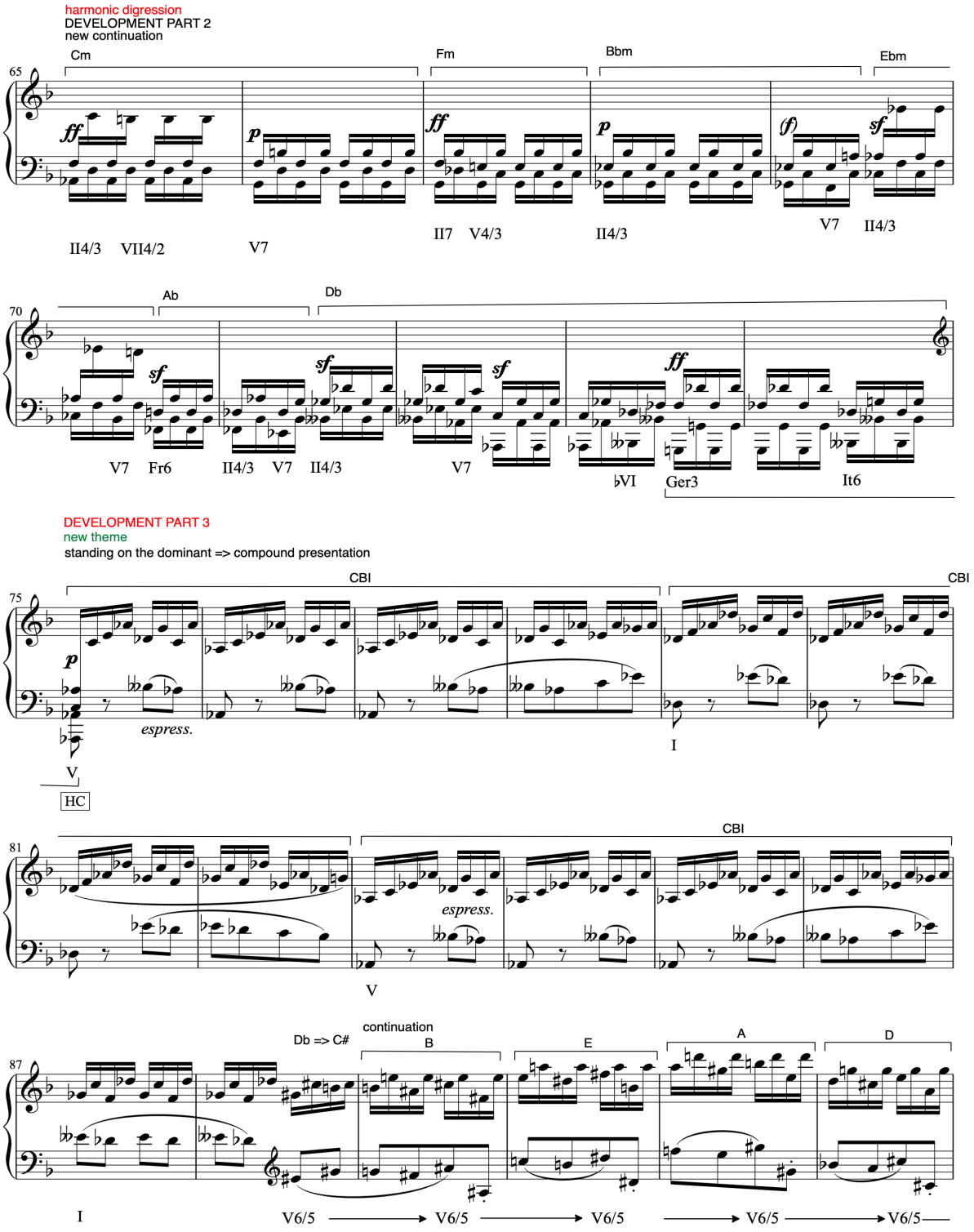
Example 1.10. Development Pre-Core and Core, mm. 20–64

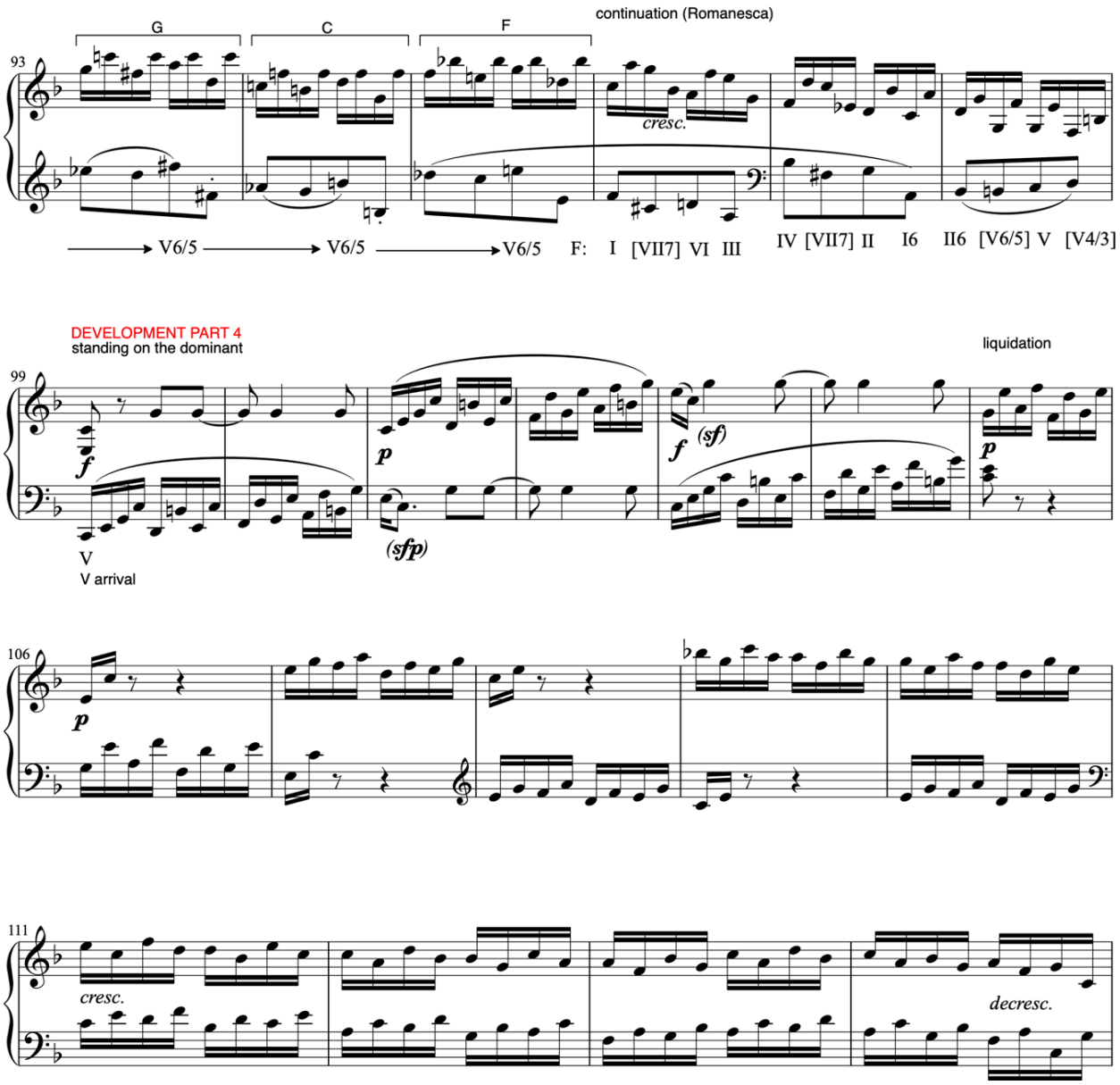


Example 1.10 (continued). Development Pre-Core and Core, mm. 20–64

At this point in a development section, we would typically expect a fragmentation process leading to a half cadence, followed by a standing on the dominant which would lead to the return of the main theme in the home key. The new continuation beginning in m. 65, shown

in example 1.11, however is only about half-way through this development. Therefore, I organize this development in two halves, the first of which contains the pre-core and core, and the second, which contains an extended cycle of fifths sequence.





Example 1.11. Development, mm. 65–114

Returning to the new continuation in m. 65, we find a new sequence based on a repetitive arpeggiation figure. In this sequence, Beethoven tonicizes scale degrees in the key of D flat major (C-F-Bb-Eb-Ab-Db), with models of varying lengths. Harmonically, the model contains a pre-dominant harmony followed by a dominant and the chord inversions and harmonic rhythms vary each time. For example, the model in C minor (mm. 65-66) lasts two full measures and contains the harmonies II4/3-VII4/2-V7, while the following model in F minor lasts one measure

(m. 67) with the progression II7-V4/3. Each statement varies slightly from the previous until the passage concludes with a half cadence in D flat major in m. 75, finally confirming this key region. After four measures of dominant harmony, which I understand as a post-cadential standing on the dominant, we unexpectedly hear the tonic version of this same unit, followed by the dominant version once more. Retrospectively, I interpret the four measures in mm. 75–78 as a standing on the dominant which becomes a compound basic idea, the first of three CBI statements in a compound presentation. A continuation follows in m. 88, which first consists of an enharmonic change from Db to C#, which then initiates another cycle of fifths through a chain of dominant seventh chords from C#7 to C7, continuing the previous cycle of fifths from mm. 65–75, which was interrupted by a compound presentation in D flat major. Together, these two passages form a complete cycle of fifths from C–F–Bb–Eb–Ab–Db/C#–F#–B–E–A–D–G–C, which is why I understand the entire second half of the development as one expanded sequential progression. The Romanesca progression follows in F major in m. 96 which then leads to the home key dominant in m. 99. A liquidation process occurs over a standing on the dominant which prepares the recapitulation in m. 115. Many of Beethoven's development techniques in this section such as starting with main theme material, the use of a pre-core/core, smaller sequences, distant modulations, and dominant prolongation at the end are conventional. However, the length of the development and the quantity of new material present in this section is highly unusual considering the twenty-measure exposition made up of a single thematic unit.

Frohlich's analysis of the development consists of four sections. In her analysis, she identifies two main criteria when looking for new sections within the development. The first is harmonic stability and the second is the return of main theme material. For example, the main theme material appearing in G major in m. 45 signals a new section in Frohlich's analysis

because both criteria are met: the main theme begins on tonic harmony. Moreover, this section comes after an IAC, another type of harmonic stability achieved by cadential closure. Moments of harmonic instability, such as sequences, are considered harmonic digressions in her analysis. The second criteria, which involves the return of main theme material is significant in Frohlich's analysis because she mentions that this movement suggests elements of rondo form, so the return of the main theme is a significant marker in her formal analysis, as would be the case in a rondo.[13] Thus, her four sections in the development are as follows: section one from mm. 21–45, section two from mm. 45–75, section three from mm. 75–99, and section four from mm. 99 to the recapitulation. All four sections begin with a version of main theme material and two out of four sections also end with cadences.

Rosen does not describe the development in as much detail as Frohlich or I do. However, he does draw attention to the alternating loud and soft dynamics in this section, which neither I nor Frohlich do. Although drastic changes of dynamics are not unusual in Beethoven's other works, the dynamic process in one section (mm. 65–75) conflicts with the harmonic rhythm in a humorous way that is worth noting. I have mentioned before that each tonicization in this passage varies in length and harmonic rhythm and in addition to that process, the dynamic changes also vary with each tonicization. For example, when tonicizing C minor in mm. 65–66, the pre-dominant harmonies are played *fortissimo*, and the dominant is played *piano*. In the next tonicization (F minor) in m. 67, the entire unit is played *fortissimo*. A particularly awkward situation for the performer occurs in the next iteration in B flat minor in mm. 68–69 when most of the pre-dominant harmony is played *piano* except for the last eighth, the first eighth in m. 69,

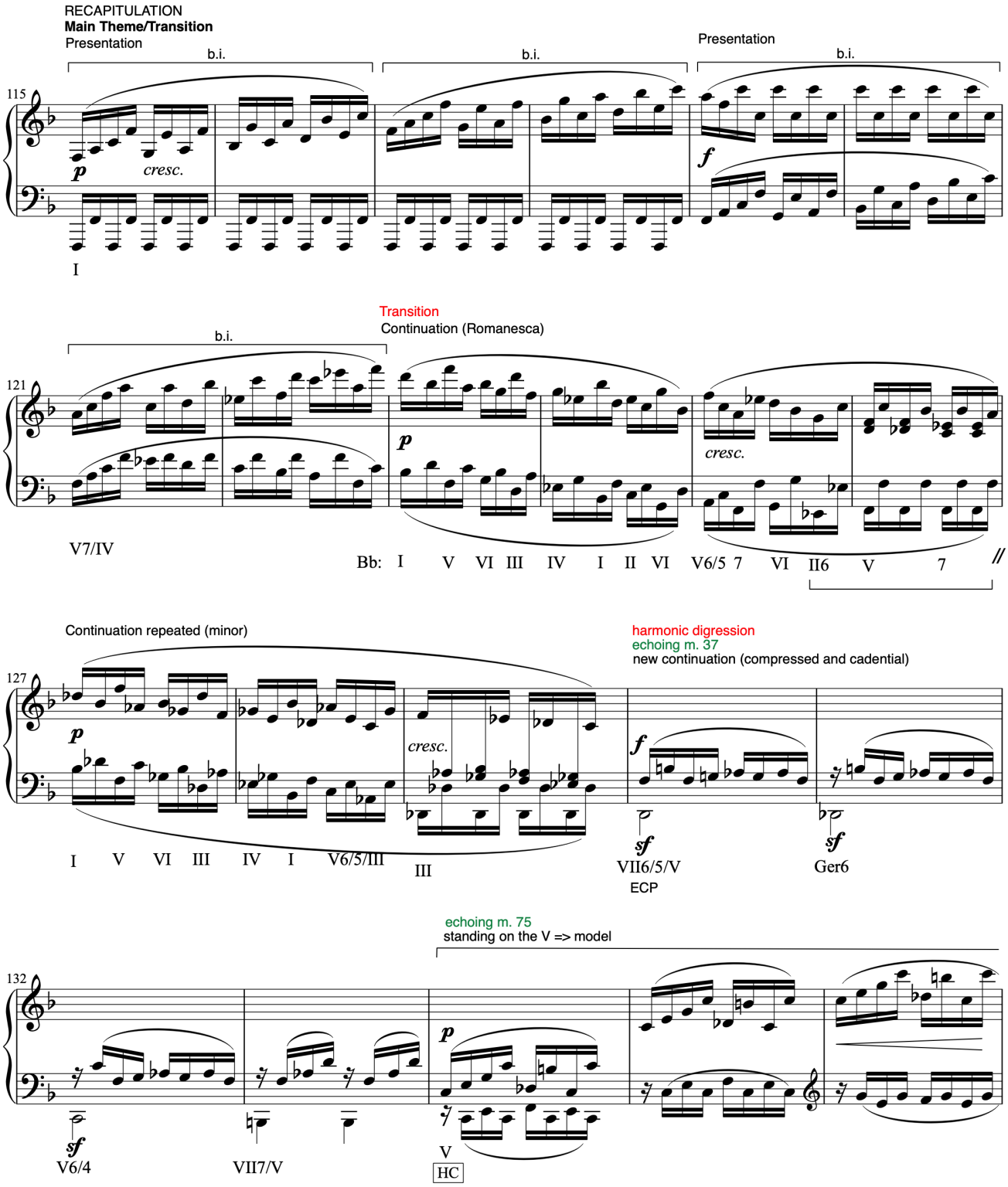
[13] Frohlich, "Beethoven's Piano Sonata in F Major Op. 54, Second Movement: The Final Version and Sketches", 104.

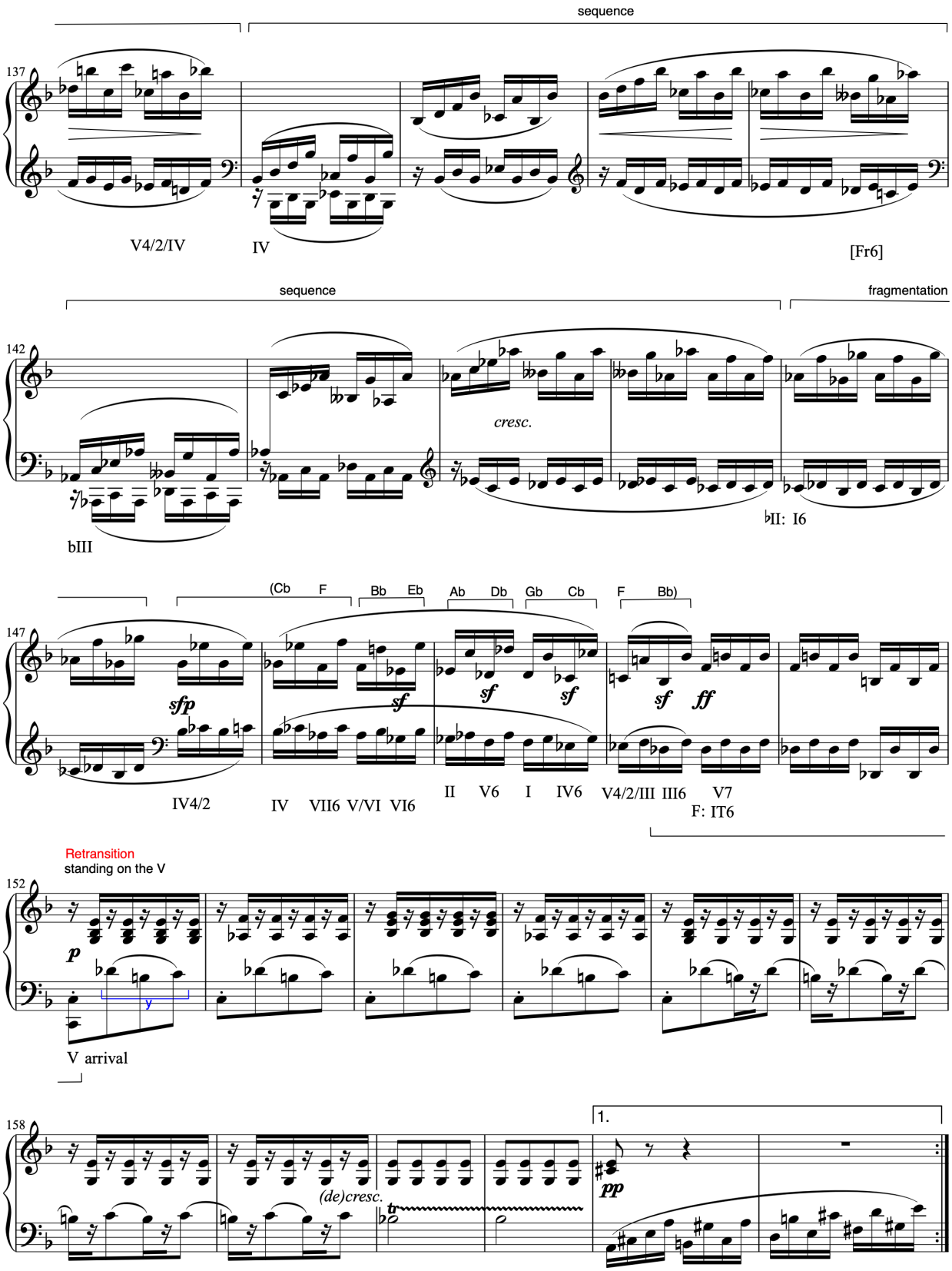
which shifts to *forte* and continues *forte* for the one eighth of dominant harmony. Although Rosen does not provide an in-depth analysis of the form and harmony in this section, his analysis draws attention to the humor in the music.

Tovey's analysis of the entire structure of the development is very similar to mine so I will not go into more detail. However, you may recall that Tovey did not use sonata form terminology in his analysis of the exposition. Interestingly, in this section, he speaks of a development, a dominant preparation, and a recapitulation, which implies that he understands the movement to be in sonata form after all. In his analysis of the development, Tovey draws attention to the enharmonic respelling of Db to C#, which occurs in m. 88. He makes a distinction between notational enharmonicism and true enharmonicism, the latter of which occurs in this measure. While Rosen emphasizes the humor of this piece, Tovey highlights the unique harmonic design of the development which returns to F major through an extended cycle of fifths from C minor in m. 65 to C minor in m. 94, with a necessary and artful enharmonic change (m. 88) halfway through the progression.

The recapitulation begins in m. 115, shown in example 1.12, with the return of the main theme in the home key. However, this section is more than twice as long as the exposition, excluding the coda, which means that Beethoven expands the exposition material in this section. The main theme, which is expressed by a repeated presentation, appears then tonicizes the key of IV (Bb) in m. 123, which is a conventional technique for a recapitulation. In the exposition, the Romanesca progression led to a half cadence in the home key, but here it is altered to lead to an evaded cadence in m. 127, resulting in a repetition of the Romanesca, which again leads to another evaded cadence in m. 130. Thus, the cadential articulation of the transition is omitted in the recapitulation, at least in the measures that correspond to the exposition. The music that

follows the second evaded cadence in m. 130 comes from m. 37, which was a new continuation in the pre-core section of the development, although it is slightly compressed in this statement.





Example 1.12. Recapitulation, mm. 115–163

This continuation leads to a half cadence in m. 134, which marks the end of the transition, after an unconventional interpolation of development material. At this point, the exposition contained one measure of subordinate theme function that led to a PAC in the subordinate key. In the recapitulation, however, the half cadence is instead followed by a four-measure standing on the dominant which is then understood as a model in a new sequence. The model is sequenced down by whole steps first to B flat (m. 138), then to A flat (m. 143), and a fragmentation process follows in G flat major in m. 146, starting with a two-measure unit that breaks down into half measure and quarter measure units. The smallest eighth note units in mm. 148–149 result in a quick descending fifths sequence, potentially referencing the expanded cycle of fifths progression in the development. A cadential progression leads to a half cadence in m. 152, followed by a standing on the dominant before the retransition to the repeat of the development section.

Although this recapitulation begins in a conventional way, starting with the main theme in the home key, and the tonicization of IV, Beethoven then departs from sonata form conventions by returning to the harmonic and phrase structural processes of the development, which includes the chromatic bassline continuation in mm. 130–133, the core-like sequence in m. 134, and the fast sequence moving by fifths in m. 148, which all lead to a half-cadence and a standing on the dominant in the home key (mm. 152). In addition, this recapitulation does not conclude with a PAC in the home key, a requirement of the subordinate theme function, which would provide structural closure for the entire section. Without a PAC in the home key, the recapitulation is incomplete much like a development section. The various sections in this recapitulation also appear in the same order as they did in the development. Example 1.13 compares the development and recapitulation sections, highlighting the similarities between

them. According to Hepokoski and Darcy's rotational principle, the recapitulation is normally a rotation of the exposition in sonata form.[14] In this movement, however, the recapitulation cycles through themes and progressions of the development. Thus, the recapitulation is a rotation of the development, instead of the exposition, one of the biggest departures of conventional sonata form in op. 54. One additional structural element that creates an incomplete recapitulation is the omission of the closing section, which first appears in m. 13, following a PAC in C major. Since Beethoven omitted the home key PAC altogether, the closing section cannot be recapitulated in this section. The other interpretations of the recapitulation are similar in their approaches. Frohlich, Rosen, and Tovey all draw parallels between the development and recapitulation based on thematic content. For example, all three analysts mention that the material in m. 130 first appears in m. 37 and the music starting in m. 134 is derived from the theme in m. 75. Since all three analysts make these connections to the development, they imply that the recapitulation cycles through more development material than exposition material.

Development:

Theme	**Main Theme**	**Transition (Romanesca)**	**New Continuation (Chromatic sequence)**	**Core**	Transition	**New Sequence (cycle of fifths)**	HC+SotD	cycle of fifths continued	Transition	**V arrival + SotD**
Key Region	A+	Dm		G+	Fm		Db+		F+	

Recapitulation:

Theme	**Main Theme**	**Transition (Romanesca)**	**New Continuation (Chromatic sequence)**	**new sequence (new core)**		**Fragmentation and sequencing by fifths**				**V arrival + SotD**
Key Region	F+	Bb+		C+						F+

Example 1.13. Comparison of Development and Recapitulation Sections

Now, I will go into a few more details about each analysis, starting with Frohlich. She divides the development into four sections. In the recapitulation, however, she does not do the same, which would reveal the parallel with the development. Instead, she identifies the main

[14] James A Hepokoski, and Warren Darcy, "Elements of Sonata Theory: Norms, Types, and Deformations in the late Eighteenth-Century Sonata", (Oxford University Press, 2006), 611.

theme, transition, and the rest of the section as another harmonic digression. This section would include the reference to mm. 37 and 75, both themes from the development. Her grouping of all this material from mm. 130–163 into one structural function resembles my analysis because I saw a recapitulation of the development in those measures, based on the order of events: main theme, transition, chromatic sequence, core, half cadence, and standing on the dominant. She identifies the same connection without mentioning the thematic content found in those measures.

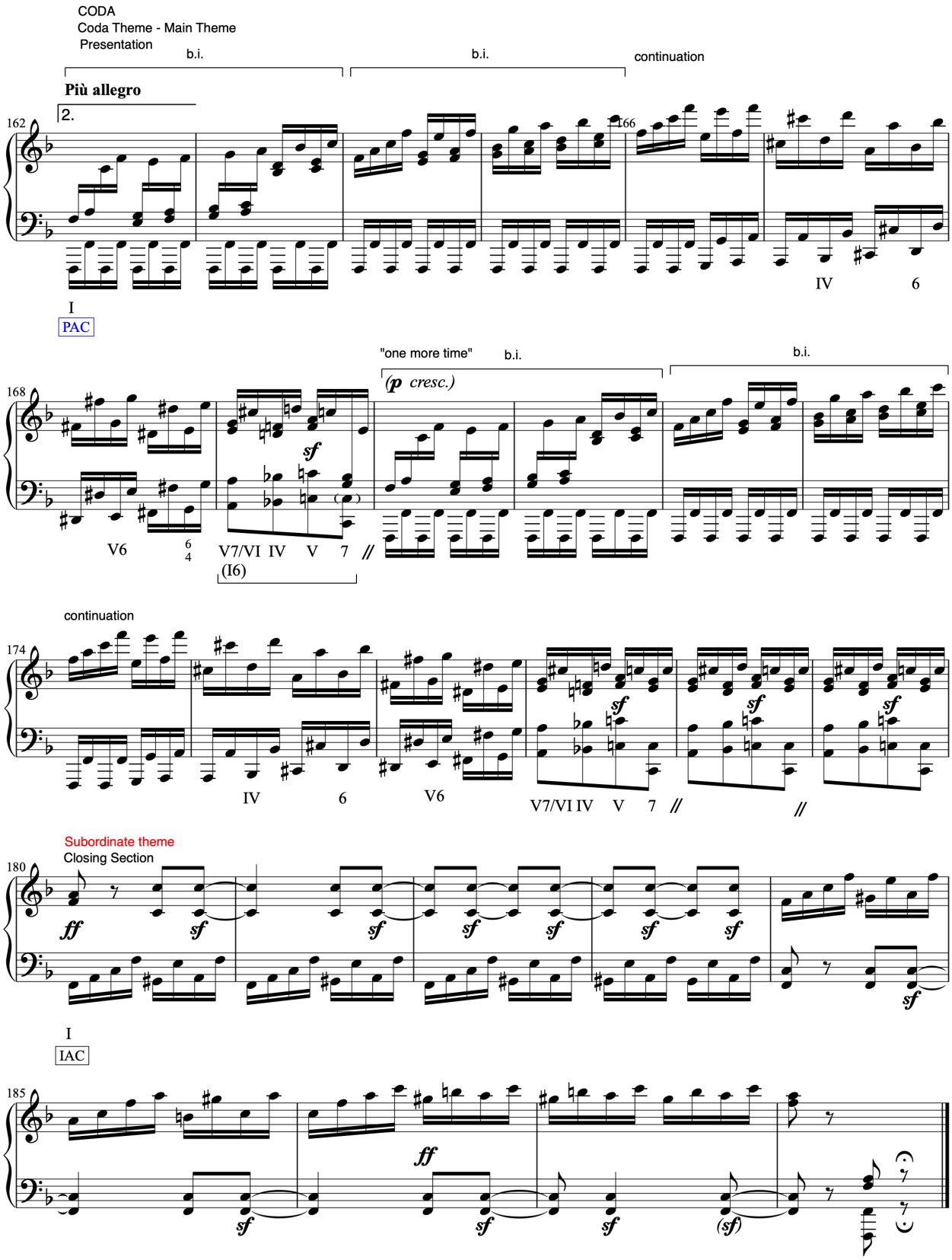
Rosen compares the recapitulation to the development, but his analysis is based on thematic content rather than formal functions. Rosen mentions that the development is later understood to function as an exposition, which implies another understanding of the recapitulation cycling through development material rather than the exposition. This view also questions the role of the real exposition at the beginning of the piece, whether it is substantial enough to be considered a true exposition, or if it functions as an introduction instead. One interesting part of Tovey's analysis, which is very similar to mine in all other regards, is the way he considers the trill at the end of the dominant pedal in m. 160. He considers this trill to resolve cadentially into the coda, even though the tonic at the beginning of the coda is achieved after a V4/2 chord.[15] Tovey's analysis implies that the recapitulation achieves the harmonic goal of an authentic cadence in the home key, even though the dominant chord is not in root position. Tovey's analysis is different from mine and the others because we consider the dominant harmony at the end of the recapitulation as a final dominant rather than a dominant that resolves at the beginning of the coda with a PAC.

The rotation of development material in the recapitulation results in unusual proportions in this movement; a 20-measure exposition, 97-measure development, and 47-measure

[15] Tovey, "A Companion to Beethoven's Pianoforte Sonatas", 176.

recapitulation. Beethoven uses the coda, however, to balance the proportions of the form and to provide the necessary closure in the home key, which was missing in the recapitulation. The coda, shown in example 1.14, begins with the main theme in the home key, just like the recapitulation, but in a faster tempo and a fuller texture. A new continuation follows in m. 166 instead of the usual Romanesca progression heard in other instances of the main theme material. This passage leads to an evaded cadence in m. 170. Although the dominant seventh harmony in m. 169 resolves to tonic harmony in m. 170, the repetition of the entire phrase, starting in m. 170 sounds like another attempt at resolving the dominant seventh to a stronger PAC. This evaded cadence, and the IAC that follows in m. 180 represent the end of the subordinate theme function, which is required to end with an authentic cadence in the home key. This also means that the transition material has been omitted, a common situation in a recapitulation. In m. 170, all of the music from the beginning of the coda is repeated in a "one more time" technique, leading to two more evaded cadences in mm. 178 and 179, dramatizing the imperfect authentic cadence in the home key in m. 180. Following this IAC, the closing section returns with its characteristic ascending motion and syncopated figure.

A coda section typically references an ambiguous moment in the movement, such as an unusual harmony or unusual phrase structure. However, this coda section compensates for more structural requirements that were left incomplete in the recapitulation. First, Beethoven uses a complete rotation of the exposition, including the main theme, subordinate theme, and closing section, all in the home key, in the coda instead of the recapitulation, where we would normally expect to see this rotation. This cycle of material provides two structural components that were missing in the recapitulation, an authentic cadence in the home key, and the exposition transposed to the home key. Example 1.14 compares the form of the exposition and coda.



Example 1.14. Op. 54 Finale Coda, mm. 162–188

These two sections are also similar in length (20 measures and 27 measures), which emphasizes their similarities in a movement with such unusual proportions. The development and recapitulation similarly cycle through the same rotation of material, discussed in example 1.15 and make up the large middle section of the piece, with a 97-measure development followed by a 47-measure recapitulation. Beethoven thus balances the form of this movement in an unusual way by using similar thematic content and length in the outer sections, which contrast with the two large middle sections. The three other analysts do not place as much structural importance on the coda as I do in my analysis. Frohlich and Rosen do not mention the coda in their analyses at all, while Tovey's perfect cadence at the end of the recapitulation implies that the coda is added on as a framing function.

Exposition:

Theme	**Main Theme**	Transition+ Subordinate Theme	**PAC**	**Closing Section**
Key Region	F+	F+	C+	C+

Coda:

Theme	**Main Theme**	Subordinate Theme	**IAC**	**Closing Section**
Key Region	F+	F+	F+	F+

Example 1.15. Comparison of Exposition and Coda

In these two short movements, Beethoven explores at least four different Classical forms using minimal thematic material. Both movements, as a result, contain unconventional phrase structures that do not always conform with prototypical Classical forms. Different approaches, which I highlighted with a comparative analysis of the finale, result in different formal analyses, especially when they are not based on form-related parameters in a Caplinian sense, including motives, expressive markings, and texture. Caplin's theory is useful in such an unconventional piece because it does not allow motivic elements to interfere with the form-functional analysis.

By separating the stylistic features of the music from the stricter principles of form-functional theory, it is possible to understand these two movements as being closer to prototypical Classical forms than is at first suggested by all of the unconventional features on the musical surface.

Chapter 2: Harmony and Formal Functions in Prokofiev's First Version of the Fourth Symphony, op. 47, First Movement

Since its premiere in 1930, Prokofiev's Fourth Symphony has commonly been dismissed due to its presumably simplistic musical style. Frolova-Walker discusses some of its criticisms before comparing the original version of the symphony with its revised version, op. 112.[16] In this paper, my goal is to reveal the formal and harmonic complexities of the first movement from the original version, focusing on Prokofiev's many phrase-structural, cadential, and harmonic deviations from Classical form conventions. I will analyze the form of this movement using William Caplin's theory of formal functions because this theory entails detailed analysis of phrase structure and harmony, which will allow me to compare Prokofiev's use of Classical techniques with their more prototypical forms.[17] One of the challenges in the harmonic analysis of this movement involves understanding the dissonances and chromaticism. Pitch analysis in Prokofiev's music has been approached using various techniques such as motivic analysis and analysis of chromatic displacement.[18] I use a variety of analytical methods for pitch analysis, including diatonic harmonic analysis wherever it is applicable, harmonic reductions of chromatic passages, and most importantly, analysis of harmonic expectations based on formal functions. For example, when I identify a cadential phrase because it occurs at the end of a theme, I expect a cadential progression, and so I compare what Prokofiev writes to my existing expectations of

[16] Marina Frolova-Walker, "Between Two Aesthetics: The Revision of Pilnyak's Mahogany and Prokofiev's Fourth Symphony," in *Sergey Prokofiev and His World,* ed. Simon Morrison (Princeton: Princeton University Press, 2008), 452-492.

[17] William E. Caplin, *Analyzing Classical Form: An Approach for the Classroom* (Oxford: Oxford University Press, 2013).

[18] Richard Bass, "Prokofiev's Technique of Chromatic Displacement," *Music Analysis* 7, no. 2 (1988): 197–214, https://doi.org/10.2307/854056.
Deborah Rifkin, "A Theory of Motives for Prokofiev's Music," *Music Theory Spectrum* 26, no. 2 (2004): 265–90, https://doi.org/10.1525/mts.2004.26.2.265.

Classical cadential progressions. Thus, Caplin's prolongational, sequential, and cadential progression categories and their formal implications guide much of my analysis of this work.[19] I also use motivic analysis in this paper, but for harmonic progressions instead of melodic motives. These motives include descending chromaticism, mediant-related progressions, or specific interval patterns in the bass, such as tritones or whole-tone scales. Although these motives do not interact with the form as much as the other types of harmonic progressions mentioned above, they create a distinct harmonic colour and affect in each section of the form, which add another layer of complexity to the harmonic analysis of the movement.

Before beginning my analysis, I want to explain my use of Caplin's theory in this piece in more depth, as well as mention how I use my piano transcription for my examples. Since form-functional theory is not intended for neoclassical music, I use the theory in a slightly different way than I would for a Classical piece. For example, a lot of themes begin with longer phrases in this movement and they cannot easily be divided into smaller, two-measure units. In these situations, I label the phrase only by its function (initiating) without using Caplin's more specific terminology, such as compound basic idea, presentation, or antecedent, which are all made up of two smaller units (basic ideas and contrasting ideas). The piano transcription that I have created is reduced to its simplest texture, which means that some parts of the orchestra have been cut out to reduce pitch doubling at the octave. I also notated the bass voice an octave higher than it sounds in many sections to make the score easier to read. None of these changes affect the phrase structure or harmony, which is the main focus of this paper.

The slow introduction of the first movement, shown in example 2.1, establishes many of the Classical form deviations that Prokofiev uses throughout the movement. This section is

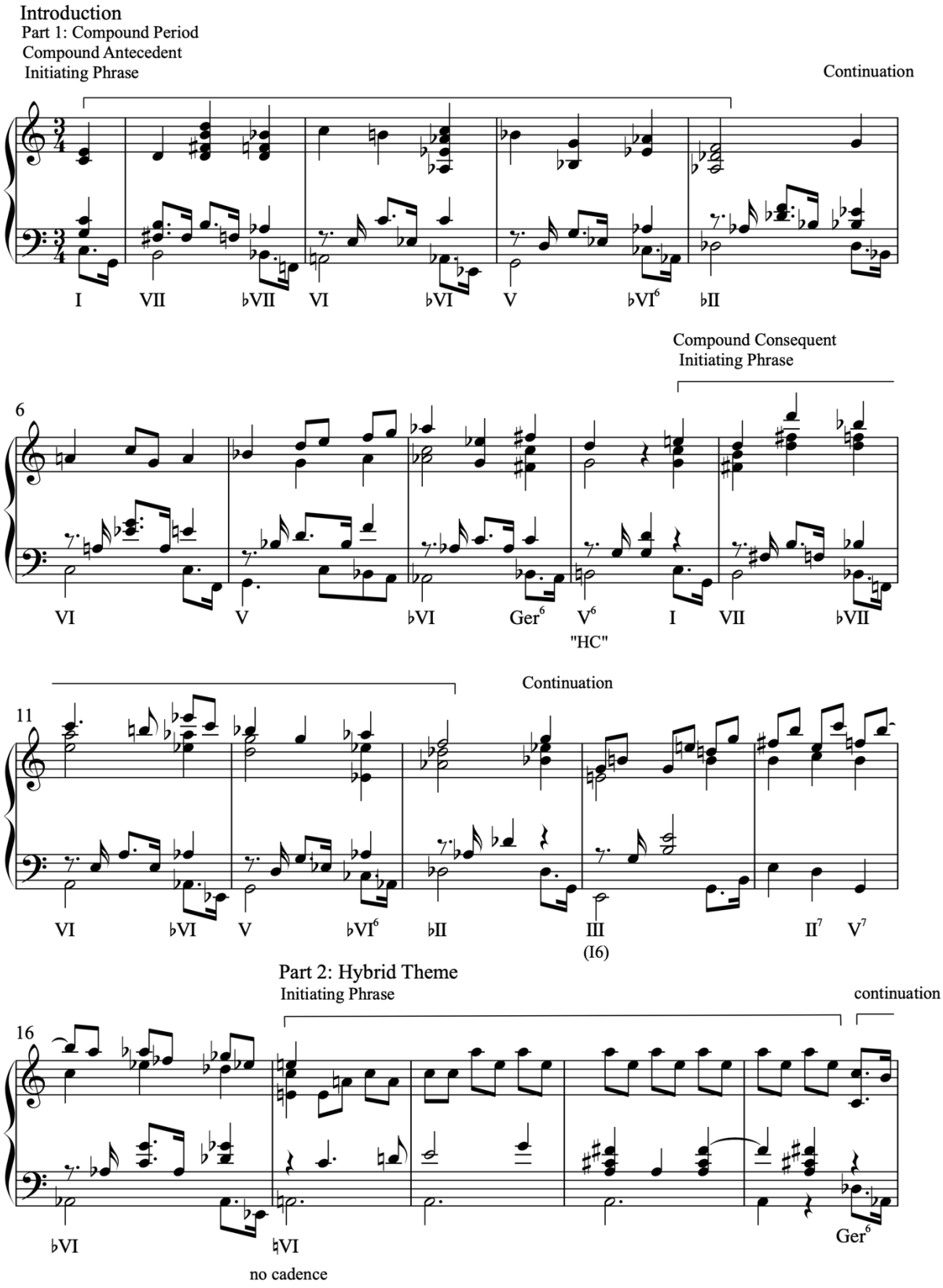
[19] Caplin, *Analyzing Classical Form,* 3-7.

organized as an unconventional two-part form; the first part is organized as a compound period (mm. 1–17) and the second (mm. 17–31) as a hybrid theme. The form of the compound period is perfectly symmetrical, consisting of four four-measure phrases, but each phrase contains unusual harmonic progressions and interesting interactions between the harmony and form. The compound antecedent, which consists of a four-measure initiating phrase plus a continuation, contains the first harmonic motive of this movement, a descending chromatic bassline, sometimes known as a lament bass. Already, we can see how the initiating function of the phrase does not align with its harmonic progression because a sequence is more characteristic of continuation function rather than initiating function. Prokofiev also creates several interesting changes to this sequence that highlight its initiating quality and that show an innovative use of this bass pattern. First, a chromatic bassline is typically harmonized using seventh chords with alternating inversions, such as alternating 6/5 and 4/2 chords. Prokofiev instead harmonizes this bassline using all root position triads and seventh chords: I, VII, ♭VII7, VI, ♭VI, V. Also, instead of alternating chord inversions in this passage, Prokofiev alternates major and minor chord qualities, beginning with a major triad, followed by a minor triad, etc. Here, Prokofiev uses descending chromaticism in a way that would not be seen in the Classical style because of how far parallel chords stray from the home key. The other unusual aspect about this harmonic sequence is that it does not harmonize a melodic sequence, but a long four-measure phrase instead. This creates a better sense of an initiating phrase than model-sequence technique would because it does not contain the fragmentation technique that is usually associated with model-sequence technique in a continuation. These first four measures illustrate some of the main analytical problems that I will explore throughout the movement. These include exploring

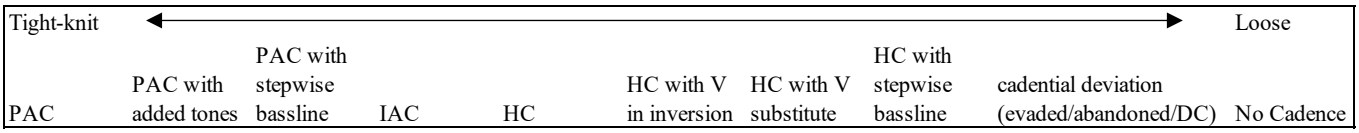
Prokofiev's use of Classical harmonic progressions in unconventional ways and observing the interactions between these progressions with formal functions.

Throughout the first movement, Prokofiev uses many cadential deviations, some of which are unconventional. Caplin's tight-knit to loose chart from *Analyzing Classical Form* does not cover all of the cadential deviations found in this movement, so I created an expanded version of this chart, shown in example 2.2, to account for additional cadential situations.[20] These include half cadences with the dominant in an inversion, half cadences with a dominant substitute such as a diminished seventh triad, and PACs with added pitches such as a tonic triad with an added sixth or fourth. One example of such a deviation occurs at the end of the antecedent phrase of the introduction. The continuation phrase leads to a half cadence in m. 9 (example 2.1), approached by an augmented sixth chord, resolving to a first inversion dominant triad. In my analysis, I still consider this cadence a true half cadence because in a compound period, I expect a weak cadence at this point in the form. Prokofiev's use of an augmented sixth chord just before the dominant triad also creates a distinct cadential progression, as it breaks out of the triadic harmonic progression of the continuation phrase. Therefore, the compound antecedent phrase ends with a half cadence, which is typical, but the half cadence is looser than a Classical half cadence because it ends on a dominant triad in first inversion.

[20] Caplin, *Analyzing Classical Form,* 204.



Example 2.1. Introduction, Part One, mm. 1–20

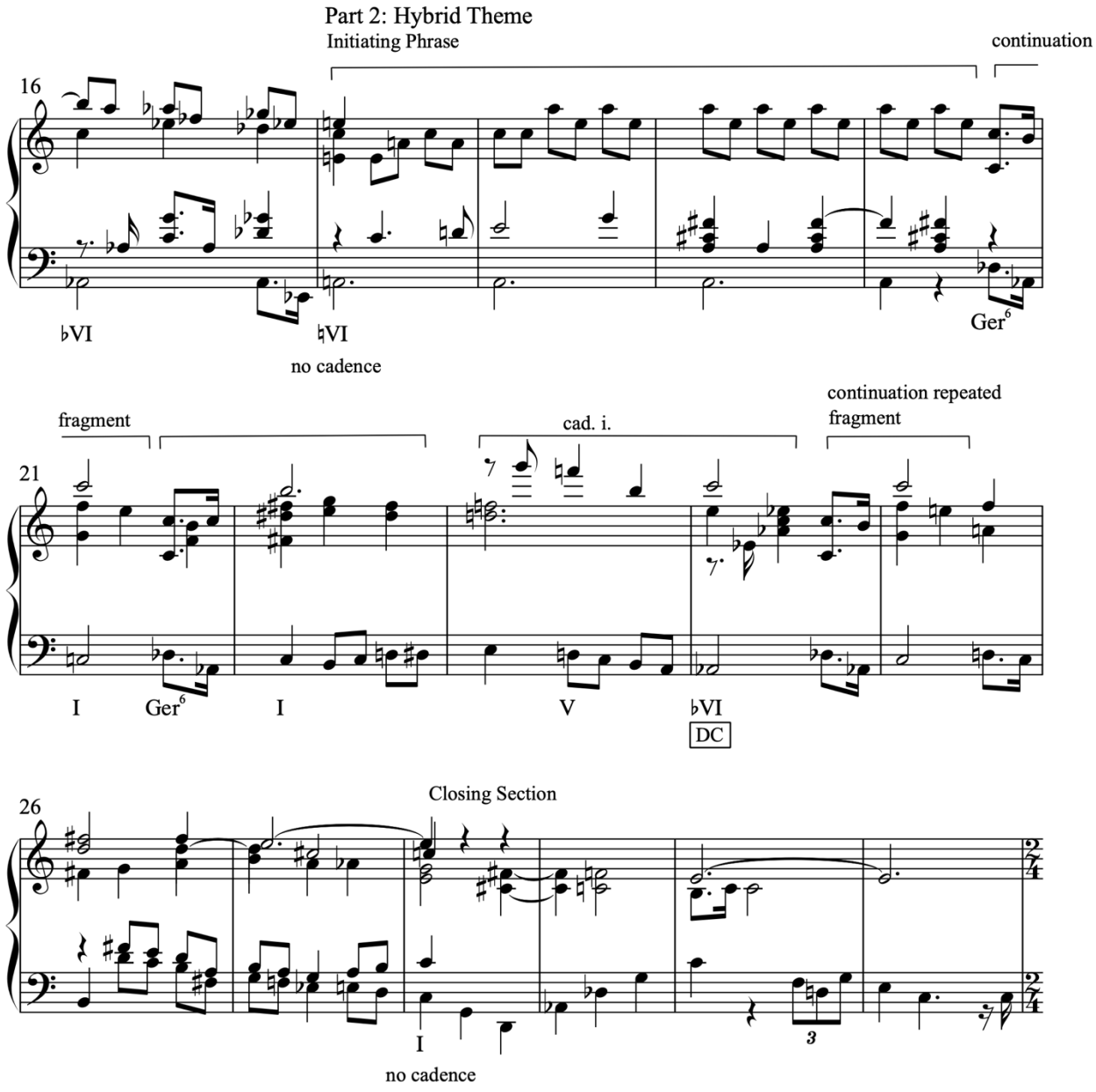


Example 2.2. Tight-knit to Loose Cadential Situations (expanded from Caplin, Analyzing Classical Form*)*

Two more cadential deviations occur in the compound consequent phrase (mm. 10–17). The initiating phrase is exactly the same as it was in the compound antecedent, but the continuation phrase is rewritten to begin immediately with a cadential progression in m. 14. The harmonic progression is a diatonic deceptive cadential progression, III6 (a substitute for I6)-II7-V7-♭VI, but several features of the melody contradict the cadential quality of this unit. First, the ♭VI harmony arrives in the third measure of the four-measure phrase, meaning that the cadential arrival occurs one measure before the phrase ends. Although the harmonic progression is clearly cadential, the melody seems to exist independently of the harmonic function. In addition, the upward melodic trajectory of these four measures creates a more initiating and opening quality as opposed to a cadential one, which would more typically descend into a cadence. The compound period ends in m. 17, one measure after the deceptive cadence. In m. 17, however, there is no cadence and no cadential progression at all because the ♭VI harmony from the previous measure resolves to a diatonic VI harmony without a root position dominant in between. The break in the melody is the only cadential marker and the resolution to a root position triad creates the sense of closure, despite the lack of a true cadence. Each preceding phrase of the compound period was four measures long which creates an expectation that the final phrase will also last four measures. This makes the cadential arrival sound premature, not only because it does not align with the melody, but also because there were no other three-measure units in the form so far.

Part two of the introduction is organized as a hybrid theme (example 2.3). The phrase structure of this section is conventional but the cadential situations are unusual. The arrival of the VI harmony at the end of part one in m. 17 elides with the beginning of the next four-measure initiating unit. These measures are followed by a continuation that includes fragmentation technique in mm. 21–22 and faster harmonic rhythm, all typical continuational characteristics. The continuation phrase ends at first with a deceptive cadence in m. 24. This cadence, however, lacks a distinct cadential progression because it is approached by a completely stepwise bassline, starting in m. 23. Instead, what creates the feeling of an arrival in m. 24 is the cadential melody in these two measures. The melody: G-F-B-C could easily be harmonized using a diatonic cadential progression such as I6-II6-V-I (or VI). This more conventional bassline is replaced by a descending motion from E to A flat in the bass. Since E and A flat are the first and last tones of the more typical progression as well, they give enough of a cadential quality to perceive a cadential progression when harmonizing a diatonic cadential melody. The pitch E represents a tonic first inversion harmony and the A flat represents the flat submediant that the cadential progression resolves to. In addition, this deceptive cadence is followed by a repetition of the continuation phrase, which is often repeated after any cadential deviation to try again for a stronger cadence. The second time, however, instead of a stronger cadence, Prokofiev uses an even weaker method of closure that does not contain a cadential bassline or melody. In mm. 27–28, where the final cadence in the home key is expected, the texture is instead reduced to all voices moving by stepwise motion to arrive on the C major harmony in m. 28, which results in none of the voices being distinctly cadential. Looking back at all of the cadential moments in the slow introduction, we can see a pattern where the cadences become weaker each time. The first cadence is the most tight-knit because it contains a half cadential progression and resolution to a

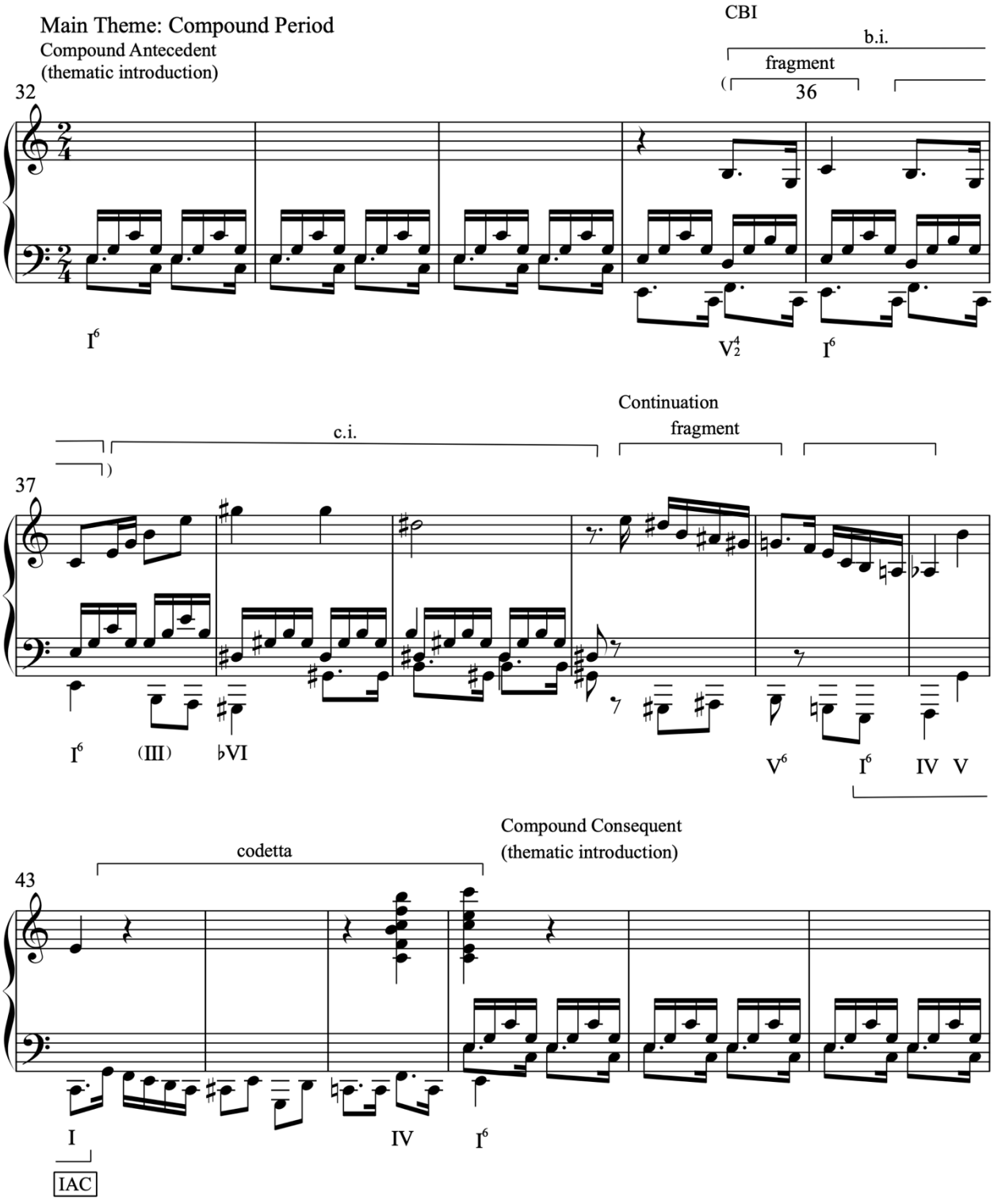
dominant triad, although it is in first inversion. The final moment of closure at the end of the introduction, which is the least cadential in its harmonic progression and melody closes the section with descending melodic motion and an arrival on a clear C major harmony.



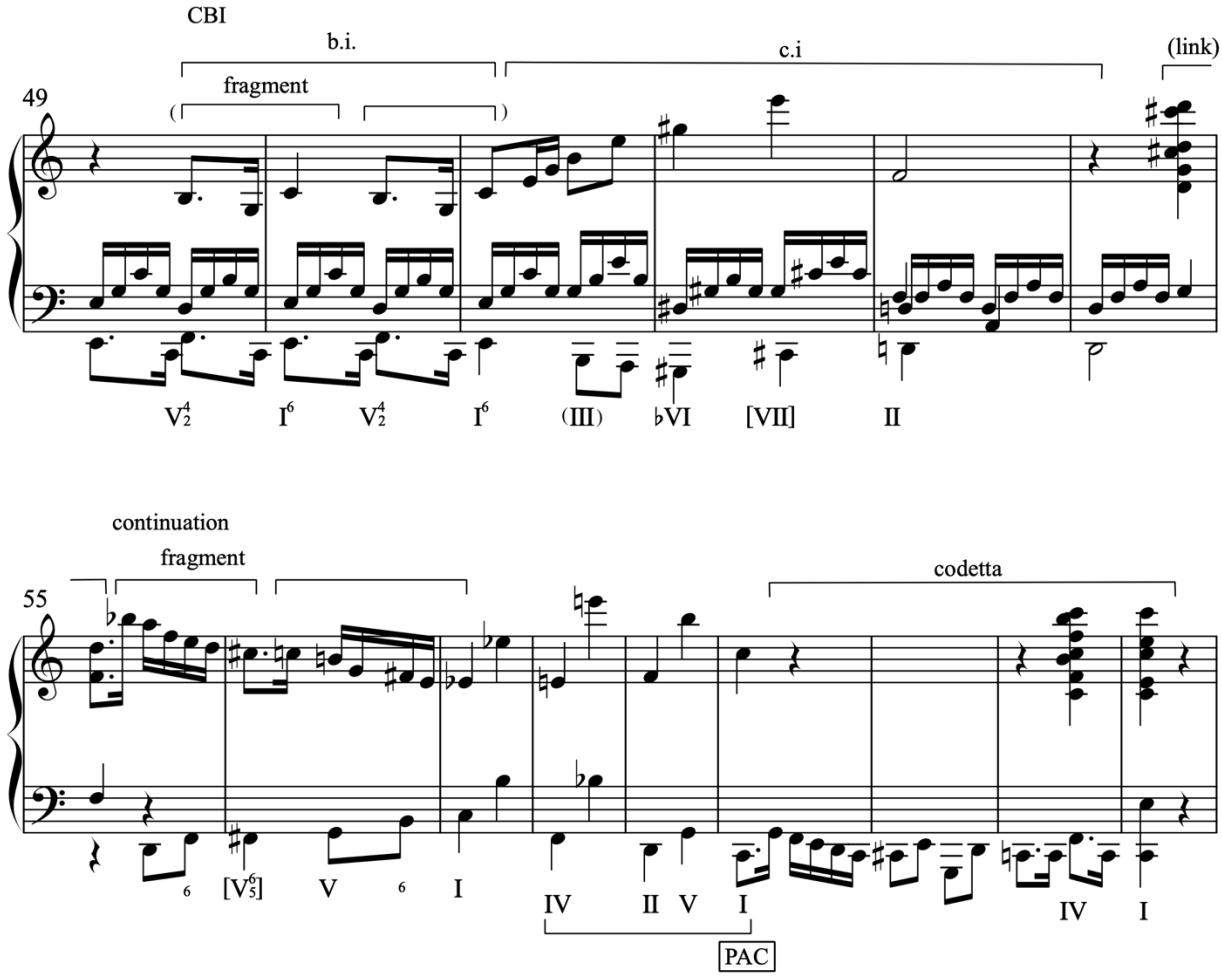
Example 2.20. Introduction, Part Two, mm. 16–31

Now I will look at the rest of the exposition. The main theme, shown in example 2.4, is organized as another compound period with conventional cadences but asymmetrical phrase

structure and one conflicting interaction between the harmony and formal functions. The compound antecedent phrase consists of a five-measure compound basic idea and a three-measure continuation. The harmonic progression of this phrase can be understood as a prolongation of tonic harmony with a V4/2 chord followed by a motion to the #V harmony, which I understand as a ♭VI chord. The tonic prolongation progression V4/2-I6 is significant in this situation because it is a more unstable progression than one that would include a root position tonic harmony. A destabilizing progression such as V4/2 to I6 may suggest continuation function more than an initiating function because in Classical repertoire, it often leads to a cadential progression, starting with the I6 chord. The compound basic idea does not lead to a cadence in this theme, but the continuational quality is suggested by this destabilizing progression. Furthermore, when looking at the phrase structure of the compound basic idea, I also identify fragmentation technique, another characteristic of continuation function. The basic idea can be subdivided into two smaller one-measure fragments, as often occurs in a continuation. One additional element that suggests continuation function is the drastically different tempo and texture following the slow and chorale-like introduction. The increased surface rhythm and faster harmonic rhythm, resulting from this change of tempo in relation to the slow introduction, also suggest continuation function. One possible reason for this contradictory formal function may have to do with the theme's origin in the *Prodigal Son* Ballet. This theme is one of the internal themes of the fourth number from the ballet, so it does not function as a main theme in that piece. Instead, its continuational qualities sustain the drama and motion initiated by the other themes in the ballet number. In the symphony, however, this theme creates contrast in character and tempo, which so often follows a slow introduction in the Classical style.



Example 2.21. Main Theme, mm. 32–63



Example 2.4 (continued). Main Theme mm. 32–63

The harmonic motive of the main theme in my analysis is the motion from tonic to the flat submediant in mm. 36–38. This harmonic progression is significant because normally, a Classical initiating function contains a tonic-dominant harmonic relation. Here, Prokofiev uses a mediant relation instead. Interestingly, he spells the ♭ VI chord as a #V chord, which retains the tonic-dominant relation at least in the spelling of the chords. Another reason why I identify this progression as a significant motive is because the main theme is very diatonic harmonically, compared to the highly chromatic introduction, and because this chord is the first chromatic

harmony in the main theme. It is also a minor triad which creates a striking and distant effect in a theme in C major.

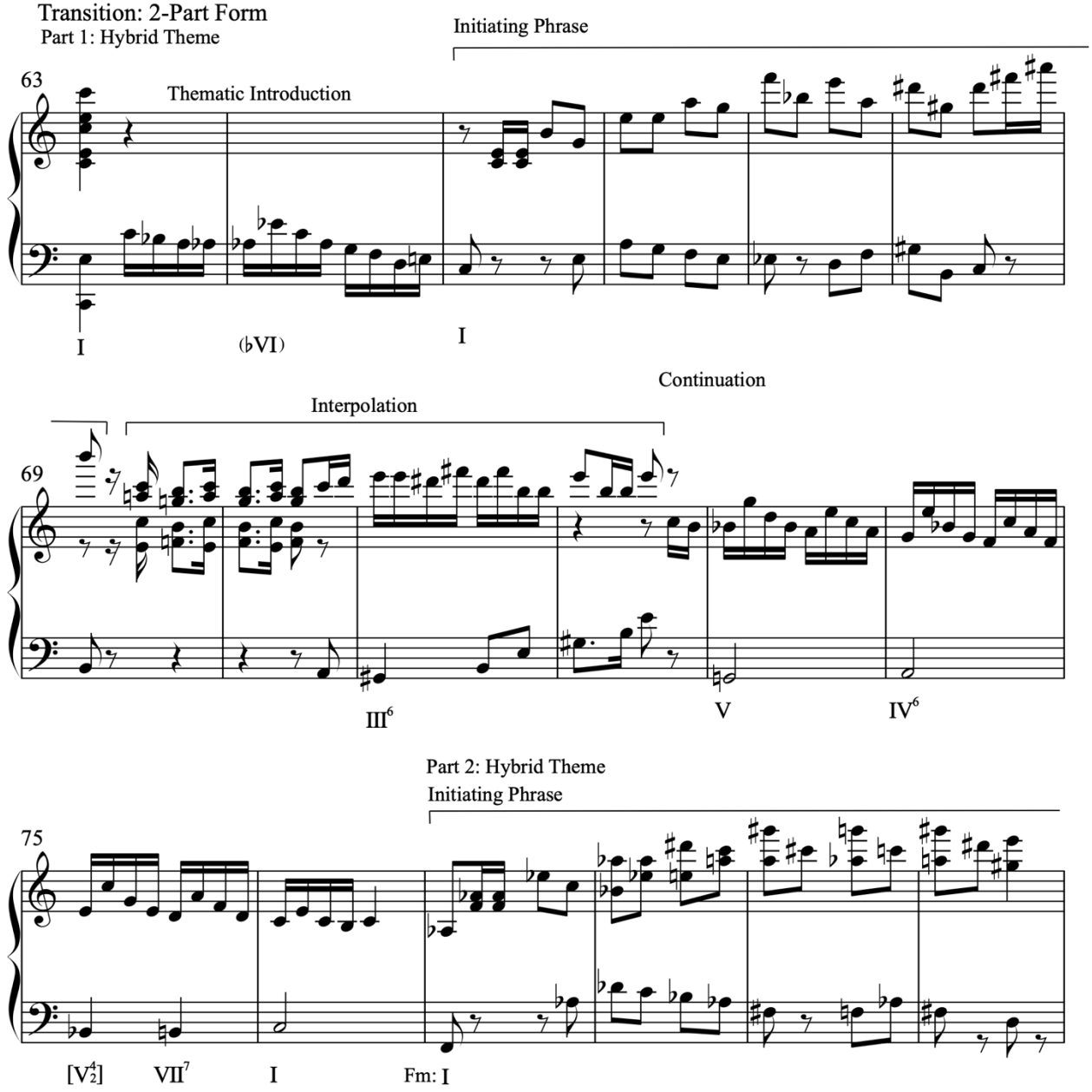
I mentioned briefly that the phrase structure of this theme is asymmetrical and I now want to explore that feature further. The compound antecedent contains a five-measure compound basic idea and a three-measure continuation. In the compound consequent, the compound basic idea is six measures long (mm. 50–55), resulting from an interpolated motive in m. 55 from the codetta of the antecedent. The continuation phrase in the compound consequent is also extended to five measures (mm. 56–60) by a longer cadential progression in mm. 58–60. All of these insertions and expansions result in an eight-measure compound antecedent (mm. 36–43), not including the codetta in mm. 44–46. The compound consequent phrase is an eleven-measure unit, not including the thematic introduction and codetta. In addition, both the antecedent and consequent phrases are framed by a four-measure thematic introduction and a three-measure codetta, resulting in a fifteen-measure antecedent and an eighteen-measure consequent in total. Although the main theme contains mostly diatonic harmony and no cadential deviations, the phrase structure creates a much more loose compound period form than it may seem at first.

The transition, shown in example 2.5, is organized as an unconventional two-part form with loose phrase structure, cadential deviations, and more chromaticism than previously seen in the movement. Part one consists of mm. 63–76 in my analysis and it contains an initiating phrase, an interpolated gesture, and a continuation, which most closely resembles a hybrid theme. This section prolongs tonic C major harmony, not unlike part one of a Classical two-part transition, but the prolongation occurs in an unusual way.[21] First, the initiating phrase from mm. 65–69 moves from C major to the dominant of E major, B major, an upper mediant relation.

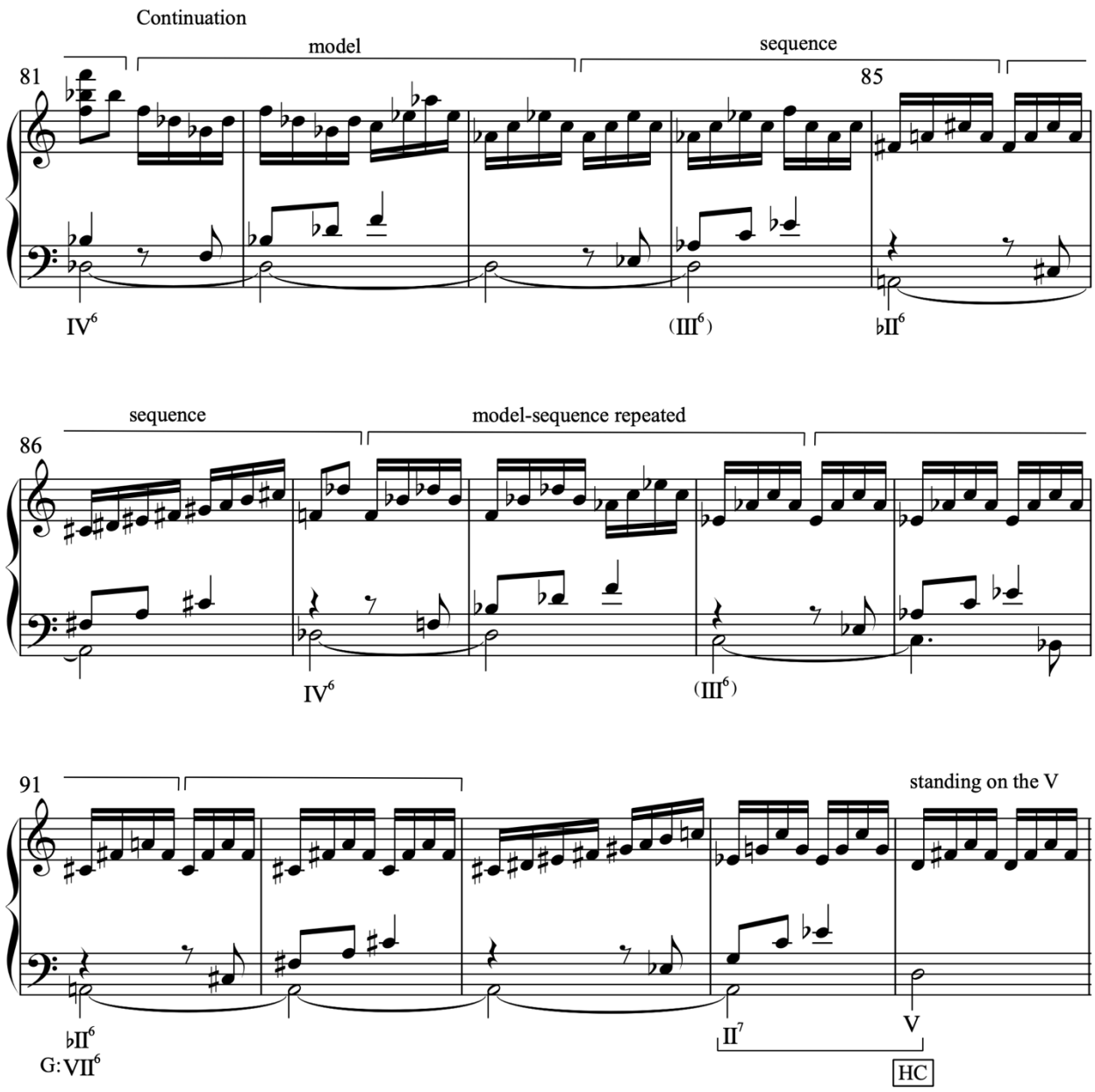
[21] Caplin, *Analyzing Classical Form,* 339.

Next, the dominant of E resolves to its tonic in m. 71 in an interpolated figure from mm. 70–72. Then, the continuation phrase, beginning on a G minor chord in m. 73 ascends back up to C major by stepwise motion, ending in m. 76. In my analysis, which is reduced in example 2.6, I analyze this prolongation as an expanded arpeggiation of the tonic C major triad (C major, E major, G minor, back to C major). Although the E major harmony never occurs in root position, I notate its root E as an implied pitch within the overall arpeggiation. The tonic prolongation can also be understood as a completely stepwise motion from C down to G, then back up to C because the literal bassline motion begins on C, passes through B in m. 69, then through A in m. 70, to G sharp in m. 71. The continuation then begins another step lower on G natural in m. 73 and at this point, the bass moves up stepwise before resolving back to C major in m. 76. Thus, part one prolongs C major harmony in two ways: by stepwise motion and by triadic motion. As a result of the stepwise bassline, part one does not end with a cadence and instead closes with a prolongational VII7 triad resolving to I, whereas a typical two-part transition would close with a half cadence in the home key.

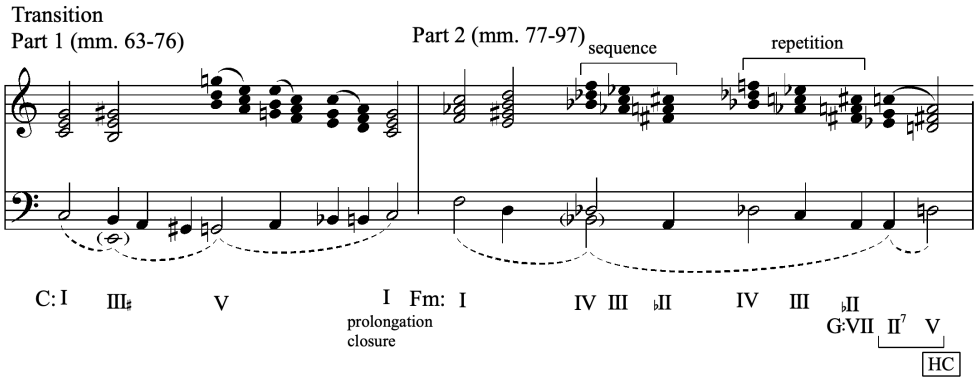
Part two of the transition begins with a similar motion from the tonic to its mediant but directly in the key of F minor. The mediant harmony, A major, never arrives however, because its dominant, E7 in m. 80 resolves to a B flat minor triad in m. 81 instead of an A major triad, which would mirror the chord progression of part one. This unexpected harmony initiates a new sequence with an interesting interaction between the melodic model and the bassline. The two-measure model begins in the middle of m. 81 and consists of an arpeggiation of the B flat minor triad over D flat in the bass. In the following two measures, starting in the middle of m. 83 when the melodic sequence moves down a whole-tone and arpeggiates A flat major, the bass stays on D flat instead of moving to C, which would create a real transposition in each voice.



Example 2.22. Transition, mm. 63–95



Example 2.5 (continued). Transition mm. 63–95



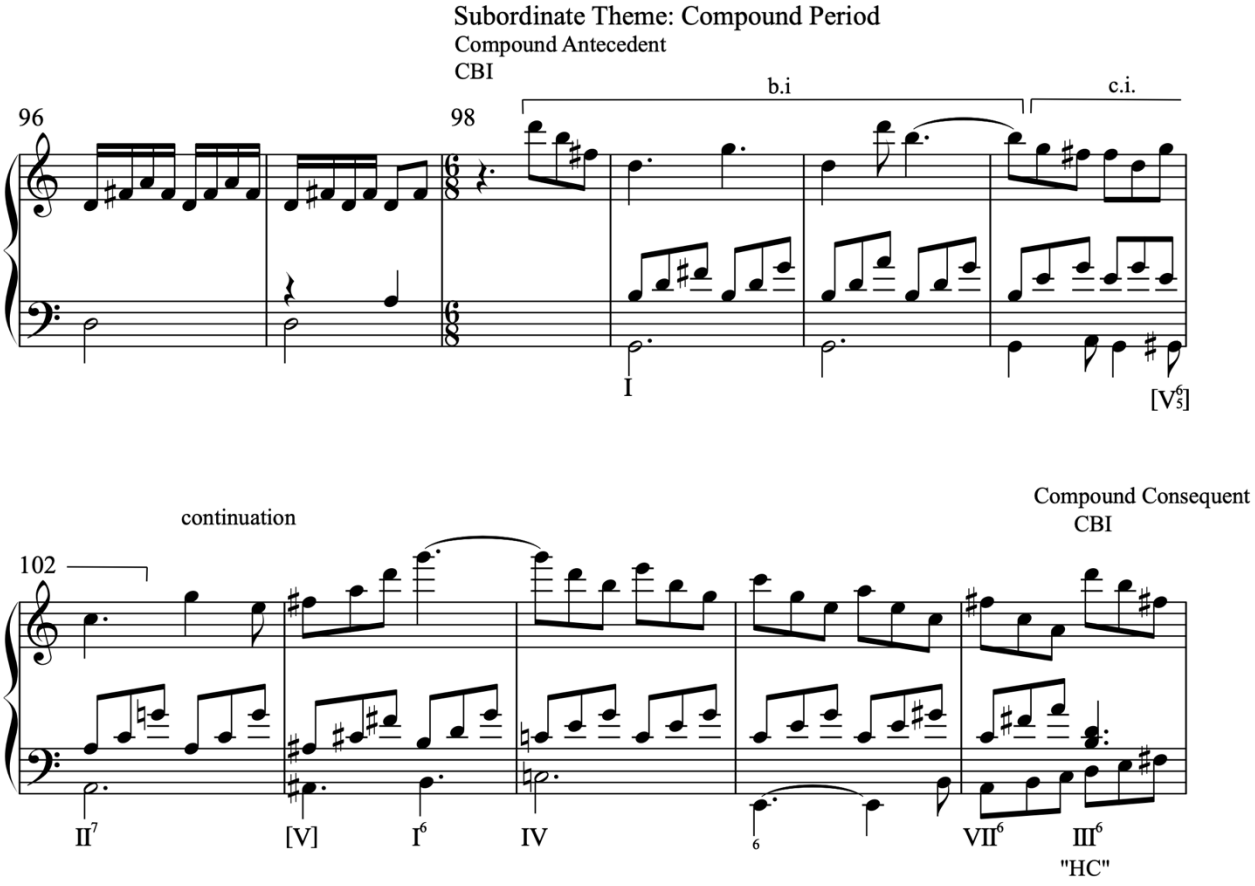
Example 2.6. Transition, Reduction

In the next statement of the sequence in F sharp minor, starting in m. 85, the bass skips to A without passing through C in between, which creates a major third leap in a stepwise sequence. As a result, the model-sequence technique in the upper parts does not coincide with the bassline in these measures. The bassline could be considered prolongational at first, because it prolongs the B flat minor harmony, while the upper parts move on to model-sequence technique. The sequence is then repeated starting in m. 87 but the bassline is corrected to perfectly align with the transposition of the model, so each statement of the model is accompanied by a two-measure pedal point on the third of its harmony (B flat minor, A flat major, and F sharp minor). After the sequence, Prokofiev writes a diatonic half cadence consisting of a II7 chord, which resolves to V of G in m. 95, followed by a short standing on the dominant and medial caesura, all conventional Classical techniques expected in transition sections. The way the modulation occurs from F minor to G, however, is not clear because the two key regions are distant and linked via a weak pivot. In my analysis, I understand the F sharp minor harmony as a ♭ II harmony in F minor, which is reinterpreted as a VII harmony in G major, despite the C sharp in the harmony, which would not occur diatonically in the key of G major.

The three harmonies in the sequence create a whole-tone progression from B flat to F sharp minor (or G flat minor) and I identify this progression as another significant harmonic motive in the movement. This progression sounds striking compared to the other two motives discussed so far, the chromatic bassline, and the I to ♭VI motion, because a whole-tone progression is not tied to harmonic functions like the other two motives are. The whole-tone sequence destabilizes the home key of C major in a much more exaggerated way than would normally be seen in a Classical transition, which might instead contain a chromatic sequence to achieve the same goal.

The final section of the exposition is the subordinate theme (example 2.7), beginning in m. 99, in the subordinate key of G major. The subordinate theme is organized as another compound period with both the antecedent and consequent phrases consisting of hybrid themes. The compound basic idea of the antecedent phrase contains a two-measure basic idea, a two-measure contrasting idea, and a four-measure continuation, forming a symmetrical eight-measure phrase. Looking at the harmonic progression, we can see a tonic prolongation of G major for the first three measures, which then leads into an ascending chromatic bassline up to the subdominant, C in m. 104. Although the grouping structure of this phrase is the most symmetrical and conventional found in this piece yet, the harmonic progression is not as clearly aligned with the grouping structure of the theme. First, the initial tonic prolongation lasts three measures out of the four measures of the compound basic idea. The ascending chromatic bassline then begins at the end of the compound basic idea and leads into the continuation phrase. By beginning the chromatic line in the compound basic idea, the harmonic progression links the two functions, compound basic idea and continuation, even though their grouping structures are not elided or connected otherwise. In addition, the chromatic bassline, starting in m. 102, is

sequential in this theme, first tonicizing II, then I6 (a substitute for III), then IV, but the sequential progression does not occur with model-sequence technique in the upper parts. This situation is very similar to the one found in the opening phrase of the slow introduction, which was harmonized by a sequential chromatic progression, without a sequential melody.



Example 2.7. Subordinate Theme, Compound Antecedent, mm. 96–106

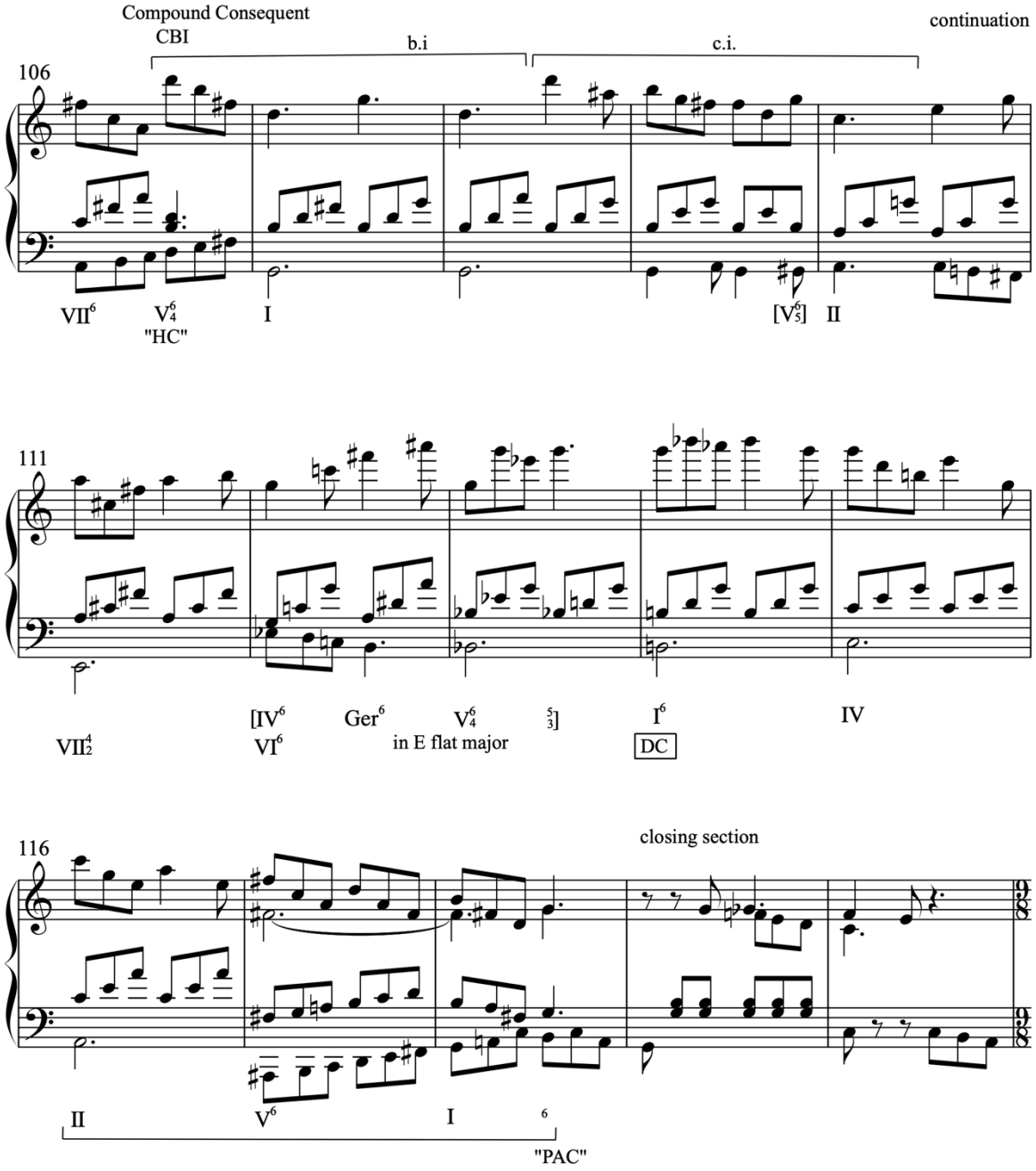
The subordinate theme contains unusual cadential deviations despite its tight-knit phrase structure. For example, the half cadence of the antecedent occurs in m. 106. However, the cadential goal harmony and the point of rest in the melody are both unclear. On the downbeat of this measure, the harmony is a VII6 chord as opposed to a more typical root position dominant. The VII6 chord then climbs up to a III6 chord on the second beat of the same measure. It is

unclear which of these chords marks the arrival of the half cadence because they both function as dominants. If the half cadence is considered to arrive on the second beat of m. 106, then the cadential progression is significantly weakened by the preceding dominant functioning harmony, the VII6 chord. Looking at the melody in this measure, it seems like the goal of the melody is the second beat of m. 106, rather than the downbeat, because the middle voices rest at that point after constant arpeggio figuration. The problem with this is that the second beat of m. 106 also elides with the pick-up to the compound consequent, a situation that would never occur in the Classical style. Thus, the compound antecedent is relatively tight-knit compared to the previous themes in the exposition but its half cadence contains harmonic and melodic deviations that would never be found in the Classical style. This theme not only contrasts with the main theme by character, but also by the loosening devices found here. The main theme contained loose phrase structure and no cadential deviations, while this theme is the exact opposite, containing very tight-knit phrase structure with unconventional cadences.

After an exact repetition of the compound basic idea in the compound consequent phrase (example 2.8), the continuation, starting in m. 110, is expanded using cadential deviations more typical of a Classical subordinate theme. First, at the expected cadential arrival in m. 114, which would create a four-measure phrase again, Prokofiev writes a deceptive cadence in E flat major, the flat submediant key region. This modulation to the distant key exaggerates the Classical subordinate theme expansion technique of delaying the final PAC of the exposition by using deceptive or evaded cadences. This modulation is achieved through a modal mixture pivot chord on the minor subdominant in m. 112, which then leads to a diatonic cadential progression (Ger6-V6/4-5/3), resolving deceptively to the dominant of VI, all occurring in E flat major. This deceptive cadence is also significant in my analysis because it represents one of the harmonic

motives that I keep track of in this paper. In this section, I consider this modulation another version of tonic to flat submediant motion, which first appeared more literally in the main theme. Although the actual submediant harmony never arrives in the subordinate theme, it is confirmed by its own cadential progression. In the recapitulation, we will see an adjustment to this section that emphasizes this harmonic motive even more.

The consequent phrase ends with the same premature arrival on the goal tonic harmony before the melody ends one beat later. When the melody does end in the second half of m. 118, the bass climbs to a I6 chord, another unstable harmony, before moving to a root position tonic on the downbeat of m. 119. Both the antecedent and consequent phrases contain clear cadential harmonic progressions that represent the weak cadence to strong cadence relation found in a typical period. The half cadence in m. 106 is approached by a IV6 harmony, and the PAC in m. 118 is approached by a II-V7 progression. However, in both cases, Prokofiev loosens the cadential situation by using stepwise basslines at the moment of the expected cadential arrival and by delaying the melodic resolution by one beat.



Example 2.8. Subordinate Theme, Compound Consequent, mm. 106–120

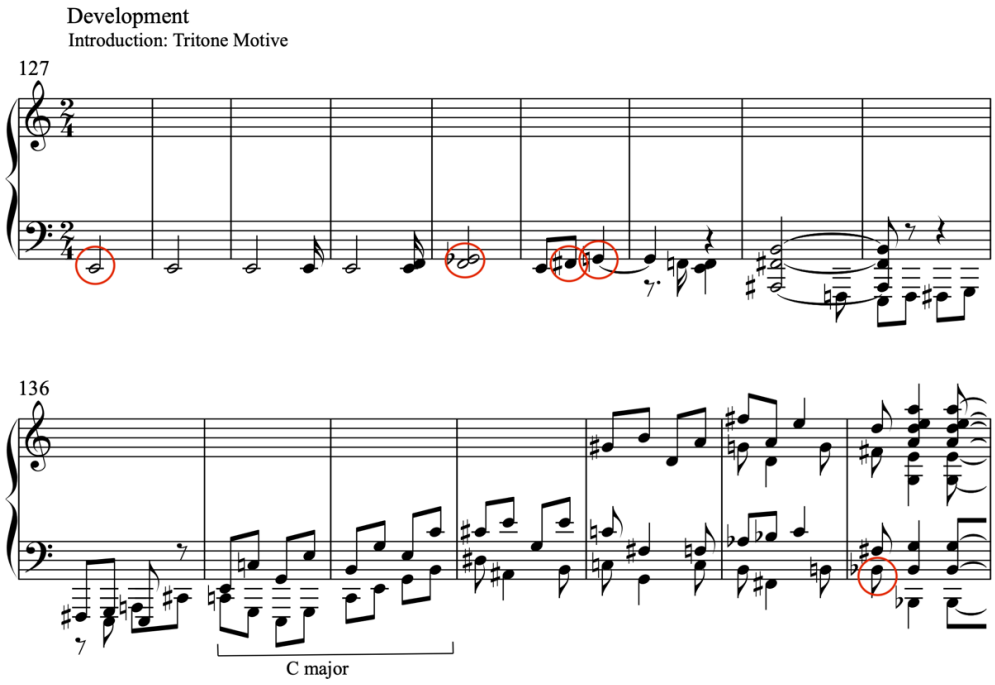
Before moving on to the development, I want to briefly recap some of the recurring patterns found in the exposition. First, Prokofiev seems to use two main formal types in the exposition: a loose two-part form, which occurs in the slow introduction and the transition, and

the compound period, which occurs in both the main and subordinate themes. The internal phrase structures within each theme type, such as a compound antecedent or consequent, or either part one or two of the two-part forms, are most often hybrid themes, consisting of an initiating phrase and a continuation. One formal type that does not occur at all in the exposition is the sentence form, as Prokofiev writes longer four-measure phrases and avoids immediate repetition of shorter units. The other pattern in this exposition involves the interaction between formal functions and harmonic progressions, which often contradict each other. In several instances, initiating functions are supported by either sequential or other continuational harmonic progressions and in other instances, melodic sequences are not supported by sequential progressions. There are also many cadential deviations throughout the exposition. A cadential melody does not always correspond with a cadential bassline, or the opposite situation happens, where a cadential progression occurs in the middle of a melodic line. In some cases, a cadential function does not contain either a cadential melody or bassline, resulting in no conventional cadence at all.

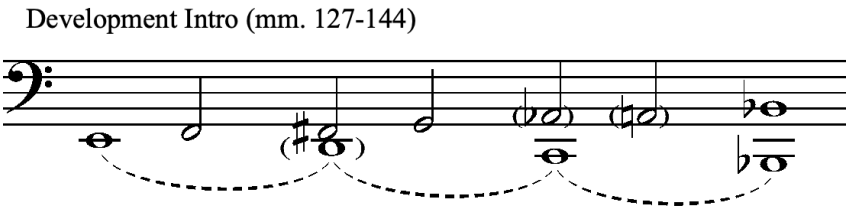
The phrase structure and harmony are the most complex in the development section. One unexpected feature of the development is that it contains all new thematic material, without referencing any of the themes from the exposition. I organize this development section as another loose sonata form exposition because the series of new themes in this section resemble the components of an exposition. In addition, since there are no cadences until the end of the development, I identify alternative methods of closure, which are achieved more by gesture than by conventional cadential progressions.

The development begins with an introductory passage from mm. 127–142, shown in example 2.9, which I understand as the introduction of a new harmonic motive, a tritone motion

from E, the starting pitch, to B flat, the bass note of the final quartal chord in m. 142. The way the tritone motion is filled in is ambiguous but I outline two possible ways of understanding the passage in example 2.10. First, the initial chromatic melodic line from E to G in mm. 127–133, circled in example 2.9, suggests the beginning of a chromatic ascending line to B flat. In the following measures, however, the two pitches that would complete the chromatic line never appear in a linear way. Instead, Prokofiev prolongs C major harmony for two measures in mm. 137–138, so no A flat or A appear, which is why in example 2.10, those two pitches are shown in brackets. The second possible reading of this passage is a descending whole-tone motion from E to B flat. This emphasizes the C major prolongation in mm. 137–138, but it does not explain the pitch D, since it does not appear anywhere in the bass. Instead, I understand the D as an implied root of the many F sharps in these measures, which always lead up to G, implying dominant to tonic motion.

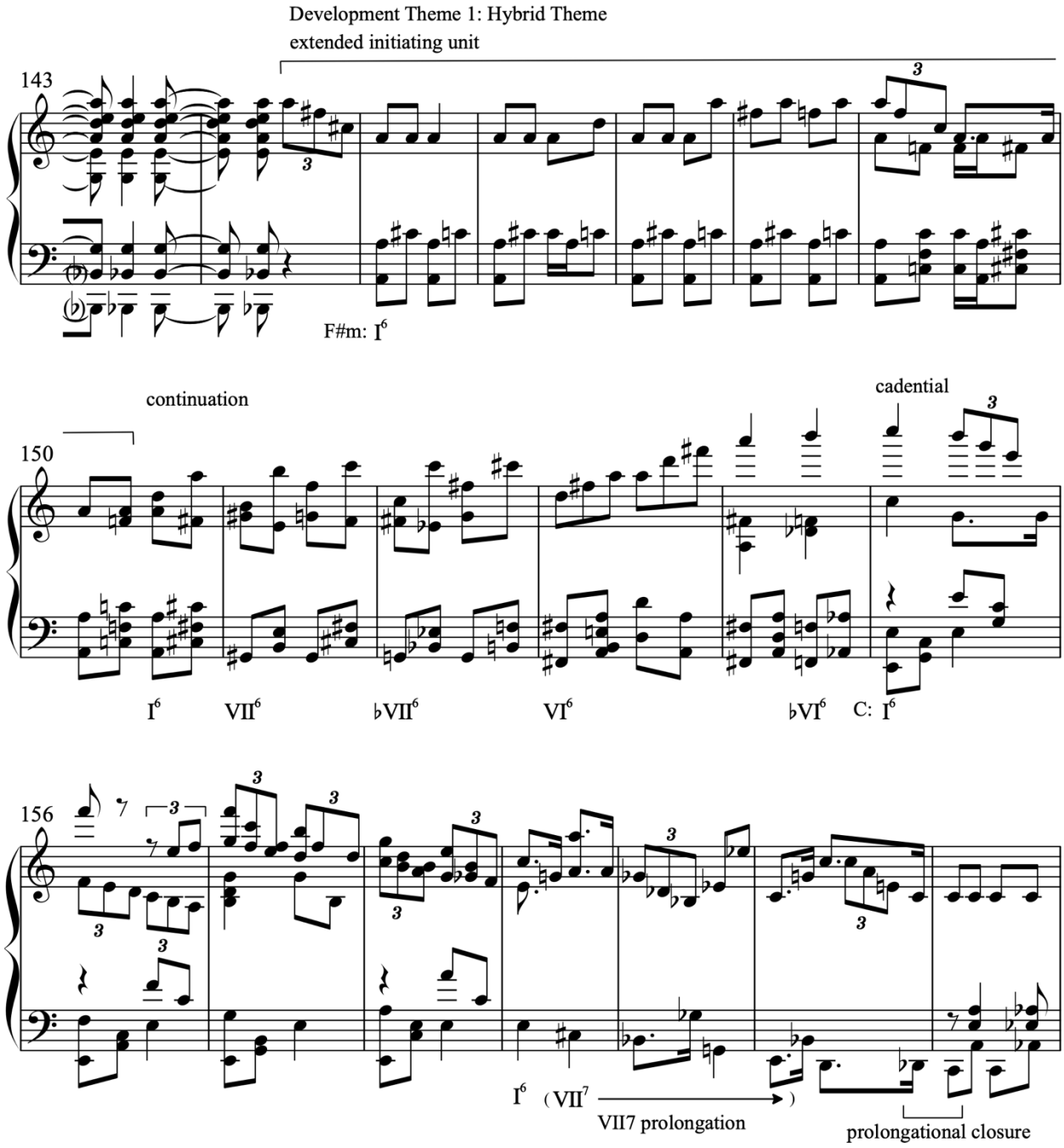


Example 2.9. Development Introduction, mm. 127–142



Example 2.10. Tritone Motion from E to B flat

The next section consists of mm. 145–162 (example 2.11), which I analyze as an extended hybrid theme, functioning as the first complete theme of the development. This theme begins with an extended six-measure initiating phrase (mm. 145–150) all over an A pedal in the bass and A centricity in the melody as well, suggesting an A major (or minor) tonic. The pick-up figure, however, is an F sharp minor harmony, and in the final measures of the phrase, beginning in m. 148, Fs and F sharps become more prominent, confirming F sharp minor (or F major) instead of A major or A minor as the main key region. Starting with the pick-up to m. 151, I identify a continuation phrase, characterized by a descending chromatic bassline from the initial A to E in m. 155. Although the bassline suggests a sequence with the descending first inversion chords on each downbeat, none of the other parts are sequential and the chords on the weak beats do not change with as much predictability as the ones on the strong beats do. Due to the similar textures and rhythms in both the initiating phrase and the continuation, it is also difficult to separate mm. 145–155 into two different functions. In my analysis, I identify a continuation only because of the increased harmonic motion beginning in m. 151, and because the chromatic bassline suggests a harmonic sequence. Otherwise, this passage is far from a typical hybrid theme.



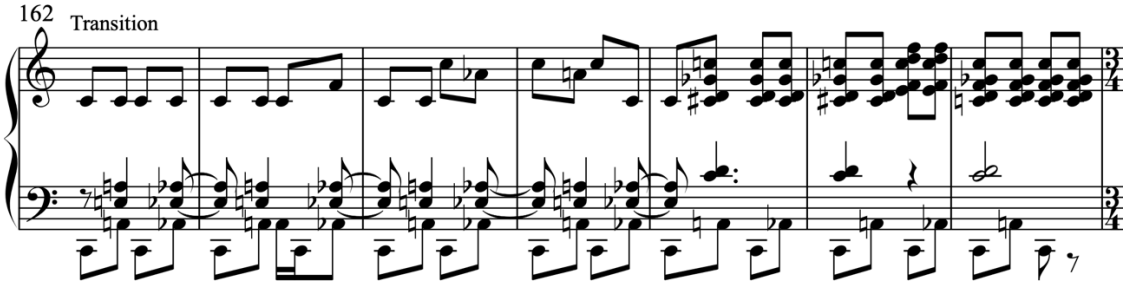
Example 2.23. Development, Theme 1, mm. 143–162

The arrival of the C major first inversion chord in m. 155 marks the beginning of a cadential unit. The I6 harmony is prolonged for seven measures with neighbouring harmonies over an E pedal and subordinate harmonies in mm. 159–160, which cycle through a diminished

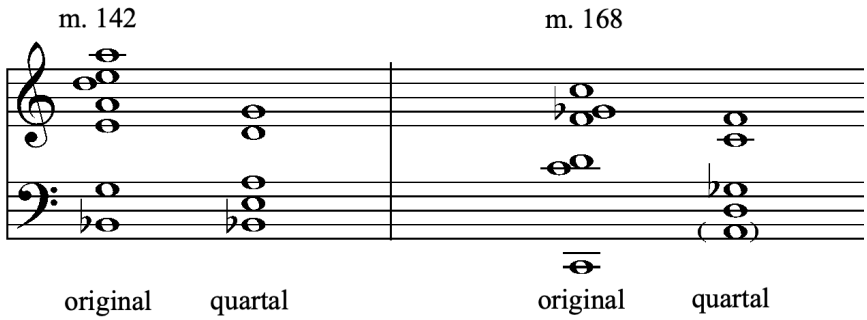
seventh harmony built on E. These harmonies include an A major chord, a G flat major chord, and an E flat major chord, all in first inversion. It is not unusual to see a series of tonicizations that prolong a diminished seventh chord in a development section, but in this situation, Prokofiev uses all consecutive major triads, without first passing through the dominant of each chord. When the I6 chord is recovered in m. 161, this cadential unit leads to a close in C major in m. 162, although the C quickly becomes the third of A minor, mirroring the chord voicing of m. 145. Even though there is no real cadence in this measure, closure is still achieved in two ways. First, the arrival on C in the bass was anticipated by a long prolongation of the I6 chord, which signals a cadential progression, and by a stepwise decent through D and D flat, which replace dominant functioning harmony in m. 161. Second, the melody in the cadential unit also has a downward trajectory, as would be expected in a cadential phrase. Whereas the initiating and continuation phrases contained upward melodic motion, the cadential unit begins to descend to the arrival of the C in m. 162, the lowest note in the melody in this passage. Thus, both the melody and harmony in this phrase point to a cadence, but the final method of closure is unconventional.

The next section consists of mm. 162–168 (example 2.12), a short transitional passage, based on motivic material from m. 145. This seven-measure passage occurs over a C pedal, the third of the harmony (A minor and A flat major). Although the motivic content is the same in these two passages, I consider this passage from mm. 162–168 and the introduction of the development (mm. 127–145) to express the same function because their harmonic procedures are similar. In m. 127 (example 2.9 above), Prokofiev begins with one pitch, E, and gradually adds more pitches before the final quartal chord in m. 142, which consists of five different pitch classes. Similarly in mm. 162–168, the phrase begins with a prolongation of a single harmony, to

which Prokofiev gradually adds four more pitches, starting in mm. 166–168. In example 2.13, I show these two chords from mm. 142 and 168 and examine their similarities. First, I show the chords in their original voicing and spacing, including any doubled tones. Next, I rearrange the chords into a more abstract quartal harmony. In m. 142, I emphasize that B flat is the root of this chord because I understood the introduction as a large motion from E to B flat. From the B flat, the chord can be arranged into a quartal harmony. In m. 168, however, the C in the bass is understood as the third of the chord because the entire passage from mm. 162–168 occurs over a pedal on the third of the A/A flat chord. Therefore, the root of the chord in m. 168 is A, even though it is missing from the original chord. The other pitches in the chord could similarly be arranged into a quartal harmony starting from A. For these reasons, I emphasize the similarity of the transitional functions of these two passages, the first of which is introductory and transitions into a new theme, and the second, which transitions between two different themes.



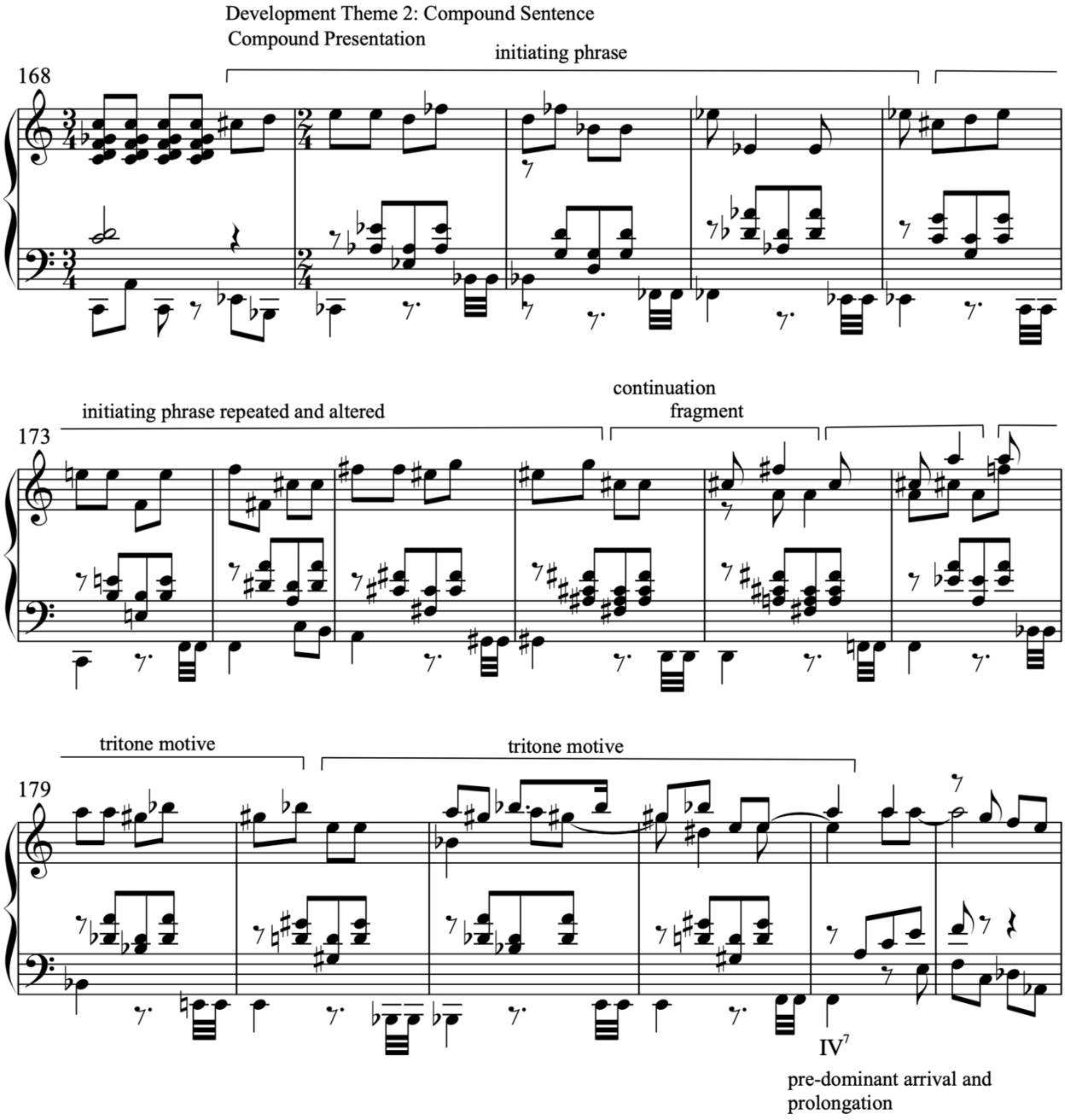
Example 2.24. Development, Transition, mm. 162–168



Example 2.25. Similarities between mm. 142 and 168

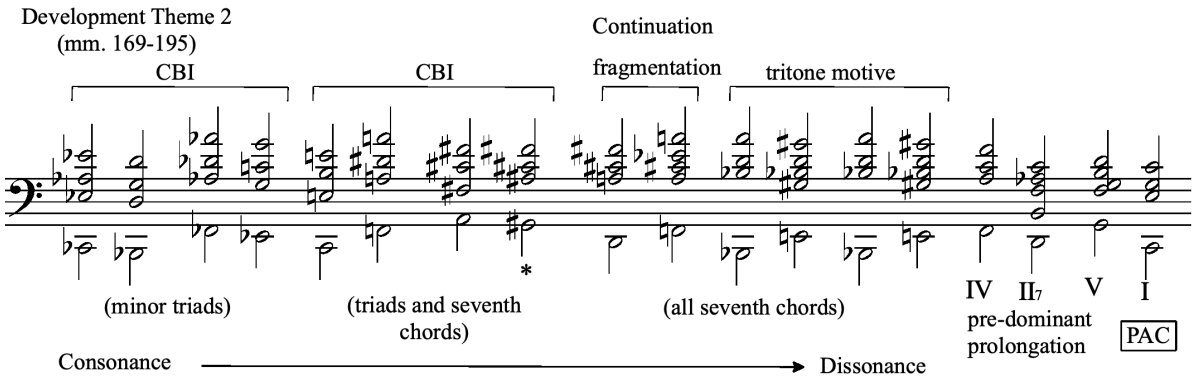
The second theme of the development, organized as a loose compound sentence, begins in m. 169 (example 2.14). It also has a more tuneful quality than the first theme of the development, resembling a subordinate theme. The phrase structure of this theme contains much clearer four-measure units plus smaller fragments but the harmonic progression is much more difficult to analyze due to the lack of functional harmony and the ambiguous key region. The initiating phrase in mm. 169–176 is organized as an unusual compound presentation, consisting of two four-measure phrases. These phrases are not related by exact, sequential, or tonic-dominant repetitions, which would normally occur in a presentation. However, both phrases begin with the same pick-up gesture in the melody, which creates some sense of repetition. The harmonic rhythm is also the same in these two phrases, although the chord progressions are unrelated. The first phrase, from mm. 169–172, is harmonized by a series of minor triads, all in first inversion, with an upper neighbour-tone pattern: A flat minor-G minor, D flat minor-C minor. The second phrase consists of both triads and seventh chords, including CM7, Faug6, F sharp minor, and F#M9. The continuation phrase begins in m. 177 with fragmentation technique in the melody. The texture and rhythms do not change in the continuation, which make it difficult to hear a change of function beginning in m. 177, but I still consider the one-measure

fragments in the melody enough to express continuation function, especially since these fragments follow two longer four-measure phrases. The fragmentation leads to the arrival of an F major seventh harmony in m. 183, the end of the second development theme.



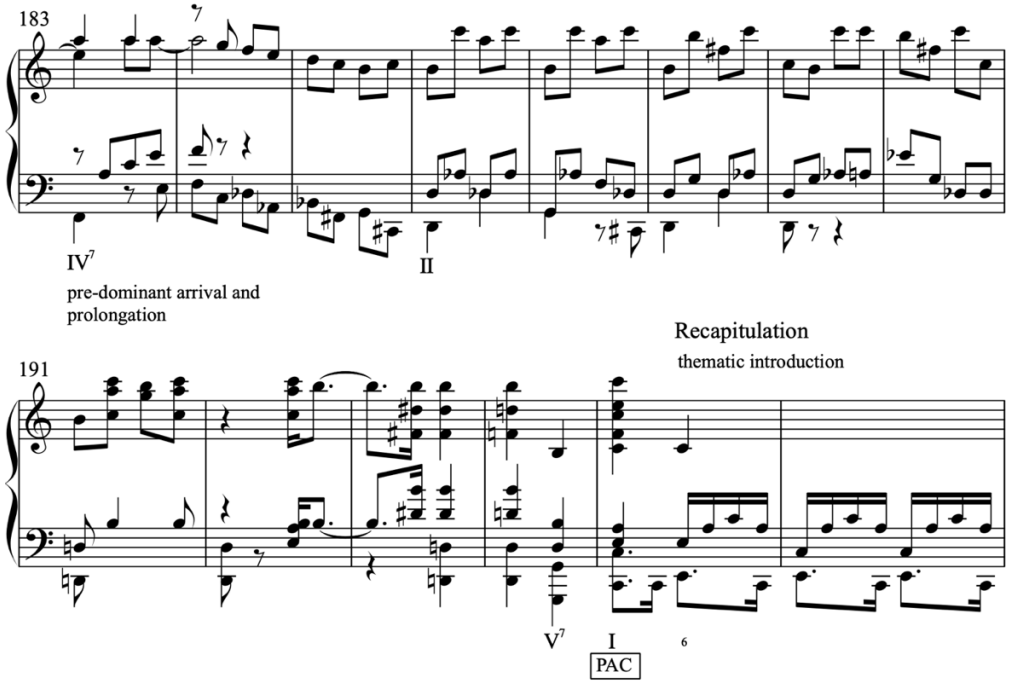
Example 2.26. Development, Theme 2, mm. 168–184

Before looking at the end of the development, I first want to examine the harmonic process of this theme in more detail. It is difficult to analyze the functional harmony in this passage because the chord progressions are unconventional and because the key region is unclear. I have already mentioned that the initiating phrases contain two different series of harmonies and I want to examine how they relate to the chord progression of the continuation. The first phrase of the presentation contained all minor triads and the second contained a mixture of triads and seventh chords (except for the chord marked with * in example 2.15, which is a triad with an added second in the bass). In the continuation, every chord is some kind of seventh chord, DM7, an F7 harmony that retains the common tones, C sharp and A from the DM7 chord, B flat minor/major seventh, and an E augmented sixth chord. In my analysis of this theme, I see a gradual shift from consonance to dissonance in the harmonic progression, first starting with minor triads and ending with highly dissonant seventh chords. This process can be seen in example 2.15, which reduces the texture of the passage into a chord progression, without emphasizing any specific chord or harmonic hierarchy. Towards the end of the continuation, the tritone motive (E to B flat) reappears within this chord progression in mm. 179–182, and it is emphasized by repetition. This motive is significant because it appears at a climactic point in the development, at the end of the motion towards dissonance. In this passage, the tritone also occurs directly without any subordinate pitches in between, as was the case when this motive first appeared in the introduction of the development. For these two reasons, the motive appearing at the height of a dissonant passage, and as a clear harmonic progression rather than a large-scale one, the tritone motion reappears as a much more significant motive in the development.



Example 2.27. Second Theme, Harmonic Reduction

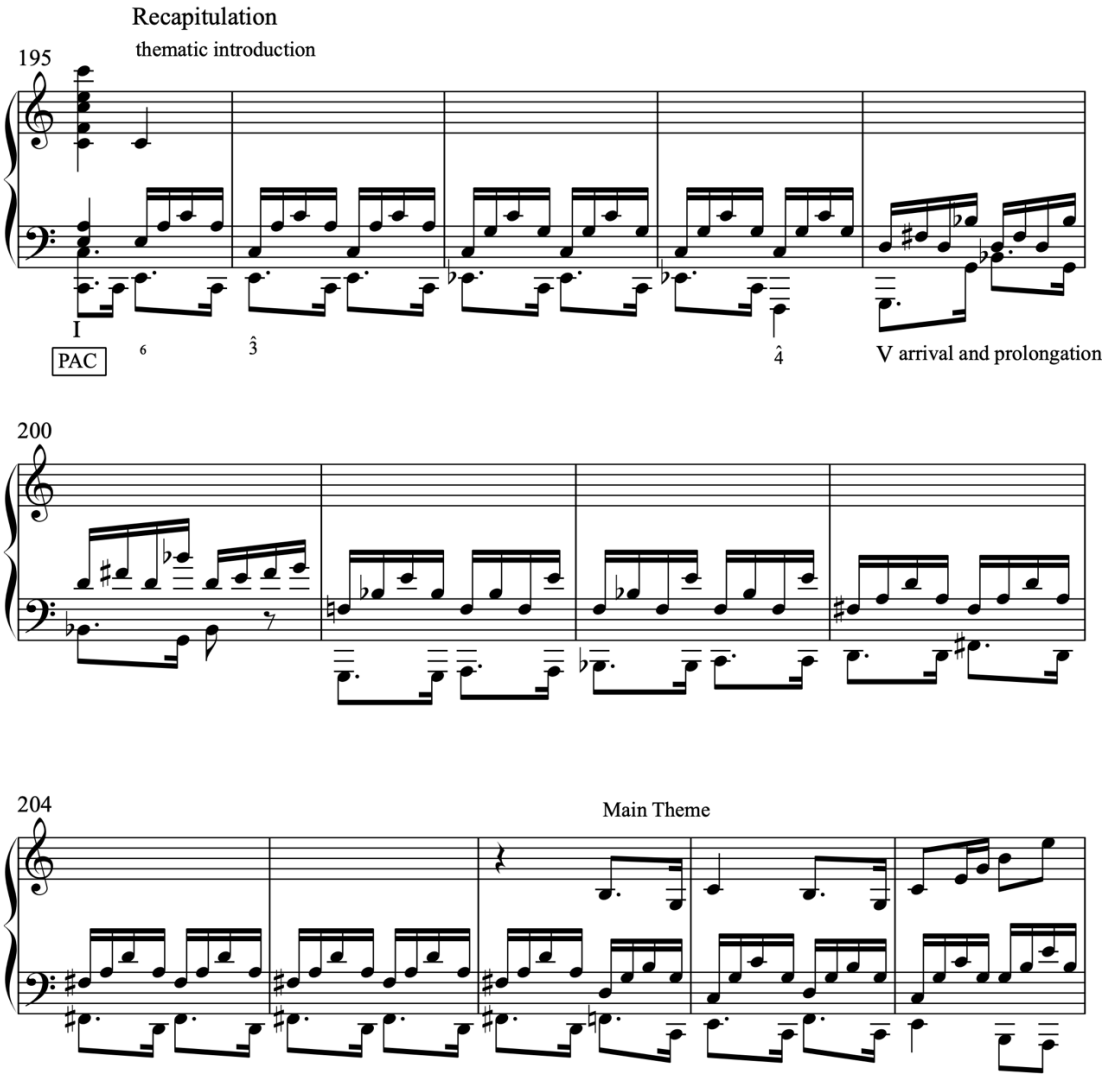
The final section of the development consists of mm. 183–195, shown in example 2.16, which prolong the subdominant scale degrees 4 and 2, before leading to a PAC in the home key of C major. The PAC contains two added tones, F and A, which suggest subdominant harmony simultaneously with tonic harmony. The predominant prolongation and the PAC are highly unusual in the context of a development section. Typically, the goal harmony of a development section is the dominant of the home key, approached by a half-cadence and prolonged by a standing on the dominant before the return of the main theme. In this case, Prokofiev instead prolongs the subdominant harmonies, first with an F major seventh chord in m. 183, then with a pedal point on D starting in m. 186. The D pedal contains subdominant pitches, F, A/A flat, and C, but also the leading tone, B, which anticipates the dominant chord in m. 194. With the pre-dominant prolongation, Prokofiev dramatizes the ending function of the development, the PAC, instead of dramatizing the return of the main theme using an extended dominant prolongation. The main deviation at the end of this development is the PAC in m. 195. In a Classical development section, a PAC here would be unusual, but since I understand this development as another exposition, an authentic cadence would be a requirement to close the section.



Example 2.28. End of Development, mm. 183–196

The final section left to explore in this paper is the recapitulation, which contains several unexpected changes, compared to the exposition. First, Prokofiev extends the thematic introduction before the main theme returns in m. 207, shown in example 2.17. Originally, this thematic introduction was four measures long, but here, Prokofiev extends it to twelve measures instead, where he prolongs dominant harmony in the home key of C major. The dominant arrival occurs in m. 199, approached by an ascending 3-4-5 bassline. This bassline often harmonizes a cadence but, in my analysis, I do not consider the dominant arrival cadential because there is no distinct cadential progression as scale degree 4 is a passing tone. Typically, a half cadence or dominant arrival, followed by a standing on the dominant, occurs at the end of the development section rather than the beginning of the recapitulation. However, since the development ended with a prolongation of the subdominant harmony, leading to a PAC in the home key, it was not possible to leave the development open-ended on dominant harmony. Therefore, the function of

these measures at the beginning of the recapitulation expresses an ending function more typical of a development section, which conflicts with its use as an initiating, pick-up gesture to the return of the main theme. The main theme itself returns exactly the same, except the entire consequent phrase is omitted, which will appear later in the recapitulation.



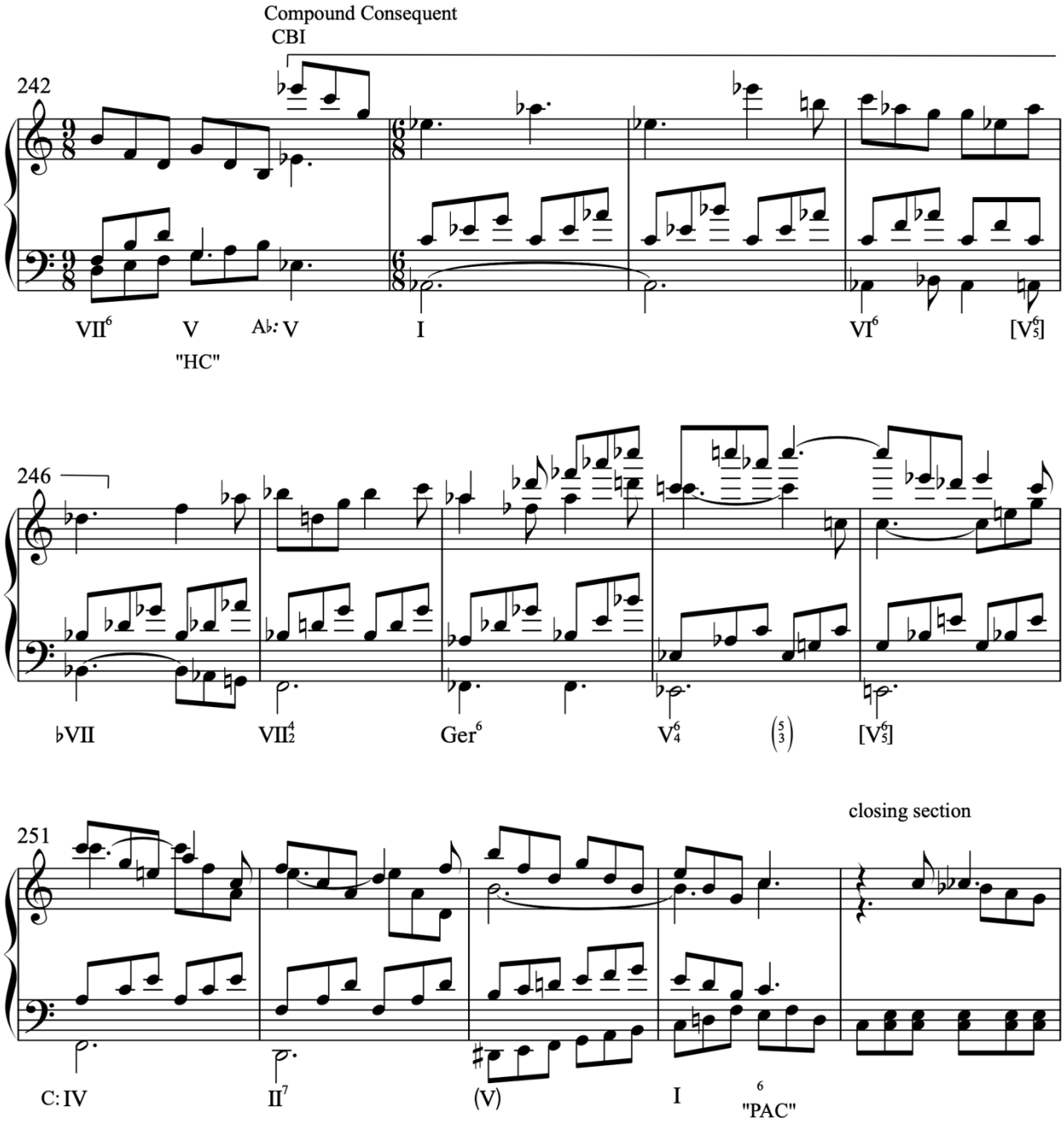
Example 2.29. Recapitulation, Thematic Intro, mm. 195–208

The transition, which was originally organized in a two-part form, is altered in a somewhat conventional way, with the entire first half omitted. In the exposition, the first half

contained a hybrid theme that prolonged the home key of C major. Since the entire recapitulation remains in the home key, this prolongation is unnecessary. With the omission of the first half of the transition in addition to the consequent phrase of the main theme, the recapitulation becomes much more compressed than the exposition. This creates interesting proportions in the form of the movement where the exposition and recapitulation are quite short, but the development is very substantial and motivically independent. Rebecca Perry finds similar contradictory proportions in Prokofiev's first piano concerto, where framing functions, such as the slow introduction, become much more substantial sections, as opposed to the other components of the exposition, which are much smaller in proportion.[22] More examples of Prokofiev's use of proportion could be explored as this parameter seems to play an important role in the formal design of his neoclassical works.

The subordinate theme contains one significant alteration in the compound consequent phrase, shown in example 2.18. In the exposition, I identified a motion from the tonic to the flat submediant as the harmonic motive of the section. However, the flat submediant harmony was only implied by a modulation and deceptive cadential progression in the key of flat six, without ever resolving to the flat submediant harmony. In the recapitulation, the consequent phrase begins directly in the key of the flat submediant (A flat major) in m. 243, with the rest of the theme transposed directly without other significant changes. This striking shift to the flat six key region, beginning immediately with tonic harmony in the key of flat six, makes the harmonic motive much more pronounced than it was in the exposition.

[22] Rebecca Perry, "House of Mirrors," in *Analytical Approaches to 20th-Century Russian Music,* ed. Inessa Bazayev and Christopher Segall (New York: Routledge, 2020), 54-70.



Example 2.30. Subordinate Theme, Compound Consequent, mm. 242–255

Finally, the coda section also contains an interesting feature, the missing compound consequent phrase of the main theme. A coda section can sometimes be lengthy in a first movement, containing at least one coda theme and cadential deviations that result in expansion.

This coda, however, is extremely short, containing a series of two-measure codettas that lead into the consequent phrase in m. 269. Like the antecedent phrase at the beginning of the recapitulation, the consequent phrase remains unchanged. The recapitulation, as a result, contains a truncated transition plus a subordinate theme, which are both framed by the antecedent and consequent phrases of the main theme.

In this paper, I highlight the intricacies of Prokofiev's neoclassical style using form-functional theory. This theory relies heavily on harmonic analysis, which was important for analyzing the conflicting ways in which harmony interacts with form in this movement. Form-functional theory also relies on the expectation of cadences in specific situations. Since many cadences were unconventional in this movement, the definition of what could be considered a cadence had to be expanded to accommodate all of the cadential situations. In my analysis, I also identify several harmonic motives throughout the movement and explore how they interact with the form and larger harmonic structure. These motives serve as an additional aid in the difficult harmonic analysis because they often show large-scale motion between two harmonies, such as tonic to flat six, or a filling in of a specific interval, such as the tritone. Concerning the formal types found in this movement, I found more two-part structures than three-part ones, including both large-scale and small-scale formal types. These forms include the introduction, which was organized as a compound two-part form, and many periodic forms, such as the main theme and subordinate theme. Interestingly, Prokofiev does not use the ternary form in this movement, which would contain a middle section. For a future project, Prokofiev's use of ternary structures could be explored in his neoclassical works to find even more examples of the conflicting ways in which harmony and form can interact with each other.

Conclusion

In this thesis, I used Caplin's form-functional theory to analyze two unconventional sonata form works by Beethoven and Prokofiev, Beethoven's op. 54 sonata and Prokofiev's op. 47 symphony. I also briefly explored two earlier works by both composers which I believe served as models for both op. 54 and op. 47. Beethoven's earlier op. 10 no. 2 sonata contains many of the same formal patterns that he later develops in op. 54, including the same key regions and phrase structures. Prokofiev's third symphony, op. 44, is the first work which he based on the music from a larger programmatic work, *The Fiery Angel* opera, a technique which he then applied to the fourth symphony, based on the *Prodigal Son* ballet. The discussion about these earlier works introduced some of the form-related ideas both composers developed, such as the use of unusual proportions and formal fusion in both Beethoven sonatas, and the transformation of large sections of music into sonata form in Prokofiev's two symphonies. Since all four of these works feature many deviations from Classical formal norms, the use of form-functional theory was more successful when used with some flexibility. In Beethoven's op. 54 sonata, for example, phrase structural analysis was often difficult due to the use of formal fusion and perpetual motion throughout the movement. In this piece, my analysis of formal functions and formal boundaries relied much more on cadential closure and harmonic analysis than may be the case in the examination of a more typical sonata form movement. In Prokofiev's op. 47 symphony, on the other hand, the phrase structure was more symmetrical throughout, but the harmonic analysis was much more difficult because of the chromatic harmonic language. In difficult sections of this movement, I relied more on formal expectations based on form-functional theory, which I then compared to what I found in the music. One example of this occurred at moments of cadential deviations in period theme types, where I expected a weak to

strong cadence pattern. Since I knew some form of closure was implied in these theme types, I approached these situations with more flexibility towards what could be considered cadential closure than I would in a Classical work. With this project, I show that form-functional theory can be successfully applied to more unconventional works, including works outside the Classical era, and works with unusual phrase structures and cadential deviations.

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