

The University of Texas at Arlington

**Tchaikovsky: Sonata-Form Style and Tendencies**

A Thesis Submitted to the Faculty of the Department of Music  
in Completion of the Requirements for the Degree of  
Master of Music

By

Lorena Ferrer

Arlington, Texas

December 2020

## Abstract

William Caplin's Formal-Function Theory and James Hepokoski and Warren Darcy's Sonata Theory were designed to analyze the tendencies of sonata forms written during the eighteenth century, particularly in the works of Haydn, Mozart and Beethoven. During the nineteenth century, this musical structure became altered in significant ways by many composers. Nonetheless, Caplin's and Hepokoski and Darcy's theories can still be used to analyze nineteenth-century sonata forms. Tchaikovsky made major changes in the sonata-form structure of his works by modulating to apparently unrelated or distant keys in his expositions. The relationship between the keys becomes clear once you analyze the recapitulation. He would also have unclear boundaries between the sections of the sonata form by not implementing the standard cadential ending. Instead, Tchaikovsky would use various augmented-sixth chords to signal the end of these sections. Another major change is the implementation of smaller form structures within the large sonata-form structure by way of fusion. Doing this would often create an internal-ternary structure hidden within the sonata form itself. Lastly, Tchaikovsky would typically bring back the introduction theme in the coda section, instead of the usual main-theme material. When doing this, he would frequently utilize the "Introduction-Coda Frame," as labeled by Hepokoski and Darcy, where the main theme takes on more of a main theme role. This thesis aims to provide some of the key elements that characterize Tchaikovsky's sonata forms, as well as a guide to analyzing nineteenth-century sonata form and what to look for when doing so.

## **Acknowledgements**

I would like to express my utmost gratitude to my thesis advisor Dr. Graham Hunt for taking the time to mentor and guide me through this thesis. Special thanks to my friends Mimi for listening to my habitual Wednesday afternoon Tchaikovsky rant, and to John for his overall help. Lastly, to my dad, who read this thesis without understanding anything and said it was decent, and to my mom.... Azúcar.

## **Table of Contents**

Acknowledgements

Introduction.....	1
Chapter 1: The Matryoshka-Doll Effect.....	2
Chapter 2: The Fellowship of the Keys.....	17
Chapter 3: Sections Without Borders.....	26
Chapter 4: The Coda Recall.....	43
Conclusion.....	69
Bibliography .....	71

## Introduction

Both William Caplin's Formal Function Theory and James Hepokoski and Warren Darcy's Sonata Theory were designed to analyze the tendencies of sonata-form written during the eighteenth century, particularly in the works of Haydn, Mozart and Beethoven. By the Romantic era, the sonata-form structures were starting to become altered as many composers developed their own way of interpreting this pre-established structure. Nevertheless, Caplin's and Hepokoski and Darcy's theories can still be applied to analyze sonata form in the nineteenth century. One of Caplin's most recent articles, "Beyond the Classical Cadence," explains how his theory could be used to interpret nineteenth-century music.

During the eighteenth century, it was custom for the subordinate themes to be in the dominant, or in the relative major if the tonic was in minor. Tchaikovsky breaks from this norm in significant ways by going to major dominant if the tonic key was in minor or by going to other distant keys. For example, in the recapitulations of his symphonies, he would occasionally transpose the subordinate themes down an augmented fifth or use an enharmonic equivalent. The boundaries between different sections were often blurred as well; for example, many expositions failed to reach a clear cadential endpoint, thus creating unclear boundaries between the exposition and the development. Tchaikovsky would also often fuse the transition with the main theme. This would frequently result in the creation of an internal-ternary structure within the larger sonata form.

The purpose of this thesis is to identify the specific characteristics and tendencies that Tchaikovsky used in the sonata-form movements of his symphonic works and chamber music using terminology derived from Caplin and Hepokoski/Darcy.

## Chapter 1

### *The Matryoshka-Doll Effect*

In late eighteenth-century sonata form, the norm was to end a main theme with a perfect authentic cadence (PAC) and a transition with a half cadence (HC). Alternatively, the main theme could sometimes end in an HC and rarely in an imperfect authentic cadence (IAC), while a transition could also end in a non-cadential dominant arrival, but typically never on a PAC. Nineteenth-century Romantic music does not hold this norm; Schubert used to bend and manipulate these rules in the early nineteenth century, as did other composers such as Mendelssohn, Brahms, and Schumann. As time went on and music progressed, these norms started to become looser. Section borders become gradually more unclear and not as predictable as they would have been in Classical form. Tchaikovsky would often fuse both the main theme and transition sections together by not adding any sort of cadential closure.<sup>1</sup> A good example of this can be seen in the third movement of Symphony No. 3 in D major, Op. 29 (graph 1).

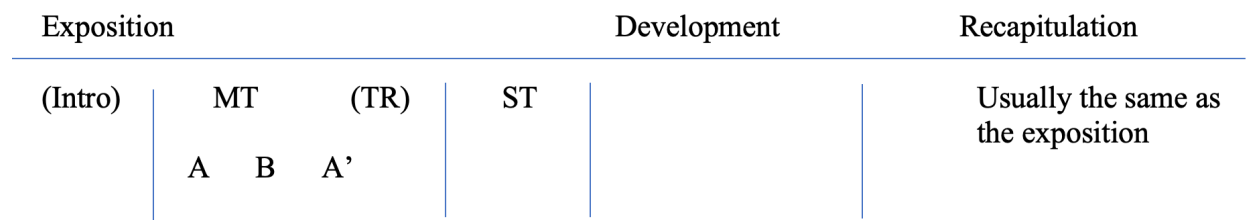
Exposition			Development	Recapitulation
Introduction	Main theme/Transition fusion	Sub theme		
<b>d minor</b> mm. 1-8	<b>A:</b> mm. 9-17 <b>B:</b> mm. 17-23 <b>A':</b> mm. 24-32 PAC <b>d minor</b> .	<b>B<sup>b</sup> major</b> mm. 35-78 PAC m. 68 mm. 68-78	mm. 78-104	<b>D major</b> ST mm. 104-end PAC in <b>D major</b>

Symphony No. 3 in D major, Op. 29, third movement (graph 1)

---

<sup>1</sup> It is important to note that “fusion” was not invented by Tchaikovsky. This was seen in Classical works as well, particularly in operas like the *Queen of the Night* aria. Beethoven also uses transition/subordinate-theme fusion. An example is the final movement of Symphony No. 6 in F major, Op. 68 “*Pastoral*”.

This movement starts with a short eight-measure introduction in d minor. The main theme starts in measure nine with a bassoon solo that is later joined by the horn in measure 13 until measure 16 ending on the tonic. What follows would normally be considered the transition; however, in measure 24 the main theme comes back, ending in a PAC in d minor in measure 34. Measures 17-24 cannot be considered the transition section because of this cadence in the home key. We also cannot call the following measure (m. 35) the transition either, because this section is in Bb major, the subordinate key. This entire first section (mm. 1-34), can be seen as the main theme, however, it is clearly divided into three sections; (ABA') thus creating a Matryoshka doll effect<sup>2</sup>/internal-ternary form within the main sonata-form structure, as seen in graph 1.1.



Example of internal ternary form in a sonata form structure (graph 1.1)<sup>3</sup>

<sup>2</sup> A Matryoshka doll is a Russian nesting doll. It is made of wood and comes apart to reveal smaller dolls inside of it.

<sup>3</sup> The transition might be fused with the main theme, be its own separate section or be missing all together. The recapitulation usually follows the same structure as the exposition, however, there are times where a section may be missing. For example, in the first movement of *Souvenir de Florence*, the exposition has an internal-ternary form in the main theme. When we reach the recapitulation, only the “A” and “B” sections return, the A’ section is missing, thus breaking the internal-ternary form structure.

We can define an internal-ternary form as any type of ternary form that is within a larger form structure, in this case, within a sonata form.<sup>4</sup> This type of internal structure within another larger form is uncommon for Classical eighteenth-century music, but it became increasingly common later in the nineteenth century, especially for Tchaikovsky. In addition, he would usually take the “B” section of the main theme and add some transition-like qualities, like fragmentation and chromaticism to make it appear like a transition before bringing back the main theme. This “B” section usually lacks the characteristic HC that would signal the end of the transition. Tchaikovsky might have done this to compensate for the lack of transition after the main theme.<sup>5</sup>

Another example of fusion is also found in the second movement of String Sextet in D minor, Op. 70 “*Souvenir de Florence*.” We can see an introduction in D major from measures 1-11 with the main theme starting in measure 12. The transition appears in measure 51, destabilizing the tonic. The first real PAC appears in measure 75, however, it’s in the key of A major which is the subordinate key. This repeats eight measures later (m. 82), emphasizing the A major PAC. As previously mentioned, a transition section cannot end in a PAC therefore, this section is a transition/subordinate theme fusion<sup>6</sup> because it starts as a transition but ends as a subordinate theme with a cadence in the subordinate key. What follows in measure 83 is a closing section that contains a tonic A pedal ending in measure 91 (graph 1.2).

---

<sup>4</sup> These internal ternary forms can also appear in any section of the larger sonata structure (introduction, main theme or subordinate theme), as well as in proper ternary form pieces.

<sup>5</sup> Sonata form itself can also be seen as an ABA’ form.

<sup>6</sup> Hepokoski and Darcy call this a Continuous Exposition. When there is lack of a clearly articulated medial caesura after a transition followed by a successfully launched secondary theme.



Introduction	Exposition		Development	Recapitulation
	Main theme	Transition/Sub Theme fusion		
<b>D major</b> mm. 1-11	<b>D major</b> mm. 12-51	m. 51 ends in PAC in <b>A major</b> (m. 75) <u>Closing Section</u> mm. 83-91	NO development (type 1 sonata)  Large Retransition section in <b>d minor</b>	<b>D major</b> MT m. 122 TR m. 166 Fused with ST, PAC in D major  <u>Closing section</u> m. 198

String Sextet in D minor, Op. 70 "Souvenir de Florence," second movement (graph 1.2)<sup>7</sup>

There are a few instances where the exposition contains this internal-ternary structure within the main theme, but also has a separate transition, such as the first movement of the Piano Sonata in G major, Op. 37 (graph 1.3). This movement starts with the "A" section of the main theme that goes from measure 1-17, ending in a PAC in G major. What comes next is a lyrical passage in g minor that expands from measures 17-40 concluding on an HC with the return of the main theme section "A" in G major from measures 41-57 ending in a PAC. One could argue that this is in fact a transitional section due to the HC that concludes this section (m. 40), however, what is important to remember, is that the tonic key does not normally return or have a cadence in a transition section, which is exactly what happens in this piece. The real transition starts in measure 58 in e minor and ends in an HC in measure 68. We can characterize this transition as "de-energizing," a term used by Hepokoski and Darcy to describe a transition that is "marked by a persistent, gentle, decrescendo yielding to the S (subordinate theme) that follows."<sup>8</sup>

---

<sup>7</sup> This particular example is of transition/subordinate theme fusion. This fusion does not create an internal-ternary structure.

<sup>8</sup> James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata*. (Oxford University Press, 2006), 44.

In contrast to eighteenth-century transitions that usually gain energy to give way to the subordinate theme, a “de-energizing” transition loses energy instead. This technique, more commonly used in the Romantic era, creates a gentler approach to the subordinate theme. We can see measures 1-57 as a ternary form, with an A section from measures 1-17 in G major ending with a PAC, a contrasting B section in g minor from measures 18-40 that ends in an HC, and the A’ section that goes back to the tonic from measures 41-57 concluding in a PAC.

Exposition			Development	Recapitulation
Main theme	Transition	Sub theme		
<p><b>G major</b></p> <p>A: mm. 1-17 PAC</p> <p><b>g minor</b></p> <p>B: mm. 18-40 HC</p> <p><b>G major</b></p> <p>A': mm. 41-57 PAC</p>	<p><b>e minor</b></p> <p>de-energizing m. 58-68 HC</p>	<p><b>e minor</b></p> <p>A: mm. 71-78</p> <p><b>B major</b></p> <p>B: mm. 79-89</p> <p><b>G major</b></p> <p>A': mm. 90-95</p> <p><b>G major</b></p> <p>B': mm. 96-110</p>	mm. 111-183	<p><b>g minor</b></p> <p>Starts with B of the Main theme mm. 184-206</p> <p>MT A: mm. 207-233</p> <p><b>g minor</b></p> <p>ST A: mm. 234-241</p> <p>A': mm. 242-247</p> <p><b>B<sup>b</sup> major</b></p> <p>B: mm. 248-266</p> <p><b>G major</b></p> <p>MT A: m. 268</p>

Piano Sonata in G major, Op. 37, first movement (graph 1.3)

While this type of ternary form is most common within the main theme section, it can also appear within the subordinate theme section, such as in the first movement of the Piano Concerto No. 2 in G major, Op. 44 (graph 1.4). In this movement, the subordinate theme starts

with the orchestra in measure 78 in E<sup>b</sup> major and the piano joins in measure 88. Something quite unusual is that the first subordinate theme contains its own closing section from measure 88-118. This is characterized by the tonic E<sup>b</sup> major pedal that is prolonged throughout all of these measures.<sup>9</sup> An “internal transition”<sup>10</sup> (Hunt 2020) appears from measures 131-147 containing sequencing, fragmentation and a general destabilization of the subordinate key. Measures 148-200 can be seen as a subordinate theme 2, this time in c minor, until the original subordinate theme returns in measure 201 being played by the orchestra in C major. As a ternary structure, the sections can be labeled as follows: The A section from measures 78-147 in E<sup>b</sup> major, a contrasting B section in c minor from measures 148-200 and the A’ section in C major from measures 201-249.

---

<sup>9</sup> It is standard practice for a closing section to follow a subordinate theme. What is unusual in this case is that there is a separate closing section for each subordinate theme.

<sup>10</sup> Graham Hunt, “Diverging Subordinate Themes and Internal Transitions: Assessing Internal Modulations in Three-Key Expositions,” *Music Analysis*, forthcoming.

Exposition			Development	Recapitulation	Coda
Main theme	Transition	Sub theme			
<p><b>G major</b></p> <p><b>A:</b> mm. 1-26 Piano comes in at m. 8-16 PAC <b>e minor</b></p> <p><b>e minor</b></p> <p><b>B:</b> mm. 17-32 Orchestra ends in m. 24 in <b>b minor</b></p> <p>piano enters at m. 25 in <b>e minor</b> PAC in <b>b minor</b> in m. 32.</p>	<p><b>e minor</b></p> <p>mm. 33- 77 19th century HC in <b>G major</b></p>	<p><b>E<sup>b</sup> major</b></p> <p><b>A:</b> ST1: orchestra m. 78</p> <p>Piano mm. 88-118</p> <p><u>Closing section of ST1</u> (pedal Eb) mm. 118-130.</p> <p><u>Internal TR</u> mm. 131-147</p> <p><b>B: c minor</b> ST2: mm. 148-200</p> <p><b>A': C major</b> m. mm. 201</p>	<p>mm. 249-392</p> <p><u>Cadenza</u> mm. 393-501</p>	<p><b>G major</b></p> <p>m. 502 MT</p> <p><b>B<sup>b</sup> major</b> ST1: mm. 530 CS: mm. 546</p> <p><b>g minor</b> ST2: mm. 576</p>	<p><b>G major</b></p> <p>m. 630</p>

Piano Concerto no. 2 in G major, Op. 44, first movement (graph 1.4)

Internal-ternary forms within introductions are also seen, although not as often.<sup>11</sup> We can observe this in the final movement of the Symphony No. 5 in E minor, Op. 64 (graph 1.5). The movement starts with the distinct fanfare that characterizes this symphony from measures 1-16 in E major; the A section. Measures 16-24 have a more relaxed texture in contrast to the triumphant opening, creating the B section. The opening fanfare returns in measure 24, however, some transition-like elements start to appear in measure 40, making this section an A' section “becoming”<sup>12</sup> transitional to the main theme of the exposition in measure 58.

<sup>11</sup> A full list of works that contain internal ternary form can be seen in graph 1.11

<sup>12</sup> “Becomes” or “Becoming” is a term originated by theorist Janet Schmalfelt. It is signaled by an arrow, as seen in graph 1.5. This can be defined as a “retrospective reinterpretation of formal function.” (Hepokoski and Darcy, *Elements of Sonata Theory*, 53) Where the  $\Rightarrow$  symbol represents the process of conversion from one formal function to another.

Introduction	Exposition		Development	Recapitulation	Coda
	Main theme	Sub theme			
<b>E major</b> A: mm. 1-16 B: mm. 16-24 A': $\Rightarrow$ transitional: mm. 24-57	<b>e minor</b> mm. 58-97 MT2 $\Rightarrow$ transitional: mm. 98-128	<b>D major</b> mm. 129-171 Goes to <b>C major</b> in m. 147	mm. 172-295	<b>e minor</b> MT: mm. 296-377 <b>F# major</b> ST: mm. 378-397 Repeat ST in <b>E major</b> mm. 398-426 <u>Retransition</u> mm. 426-436 (back to <b>e minor</b> )	<b>E major</b> Intro theme m. 472 <u>Coda 2:</u> m. 505

Symphony No. 5 in E minor, Op. 64 (graph 1.5)

While it is most common to see internal-ternary forms, there are a few instances where we can see internal-binary forms instead.<sup>13</sup> This can be seen in the introduction of the *Romeo and Juliet* Overture (graph 1.6). The overture starts with the woodwinds playing the introduction of the Friar Laurence theme in *f#* minor. This first A section expands from measures 1-10. The strings start playing in measure 11, the B section, and the key signature changes to *f* minor when the woodwinds join the strings in measure 21. The original theme comes back in a more “up-beat” manner in measure 40, making this the A’ section, until the B section returns in *e* minor from measures 52-77. Much like the final movement of the Symphony No. 5 in E minor, Op. 64, this B’ section features transition-like elements from measures 78-111, ending in *b* minor. One

---

Hepokoski and Darcy call this a “Dissolving reprise,” when the dissolvment of the transition begins with the A’ section.

<sup>13</sup> Full list of works that contain internal binary can be seen in graph 1.12

could call this a B' section "becoming" transitional to the exposition in measure 112. This transitional section doesn't end in the expected HC, instead, it ends in a i6 chord in b minor giving the impression of the beginning of a cadential progression, which is both a very unusual way to end a transition section, and to begin a new section.

Introduction	Exposition		Development	Recapitulation	Coda
	Main theme/ transition fusion	Sub theme			
<b>F# minor</b> <b>A:</b> mm. 1-10  <b>f minor</b> <b>B:</b> mm. 11-39  <b>A':</b> mm. 40-51  <b>e minor</b> <b>B':</b> mm. 52-77  mm. 78-111 Transition to the exposition. Ends in <b>b minor (i6)</b>	<b>b minor</b> <b>A:</b> mm. 112-122  <b>B:</b> mm. 122-150  <b>A' ⇒</b> transitional mm. 151-183  Ends in Ger +6 chord.	<b>D<sup>b</sup> major</b> ST1: mm. 184-192  "ST2": mm. 193-211 (creates a shell effect when ST1 comes back). ST1: mm. 212-242  <u>Closing Section</u> mm. 243-273	mm. 274-352	<b>b minor</b> MT <b>A:</b> mm. 353-367  <b>D major</b> "ST2": mm. 367-389  ST1: mm. 389-446  MT <b>A:</b> mm. 446-484	<b>B major</b> mm. 485

Romeo and Juliet Overture (graph 1.6)

Significantly, these internal forms are not only present in Tchaikovsky's sonata-form movements. They are present in the ternary-form movements of his works as well. One example of this is in the second movement of the Piano Sonata in G major, Op. 37. This movement has an internal-ternary form structure within the A and A' sections. The movement starts with a dotted

quarter-note theme in e minor from measures 1-16. This is the large A section, however, since this section contains an internal-ternary form, it can be labeled as Aa. The “b” section of our large A section can be seen from measures 17-27, with the return of the small “a” section from measures 28-50. The A’ section contains the same internal-ternary form but with more ornamentation.

All of the B sections of the works analyzed for this thesis contain “transition-like” qualities like fragmentation, chromaticism, modulations, and liquidation of the main theme, which are characteristics of proper transition sections. However, when we look at the pieces that have an internal-ternary form as well as a separate transition section, the “B” section is not as “transition-like” as the pieces that do not have a separate transition. For example, both the first movement of the Piano Sonata in G major, Op. 37 (graph 1.3) and the *Romeo and Juliet* Overture (graph 1.6)<sup>14</sup> contain an internal-ternary structure in the main theme as well as a separate transition. However, the B section of the internal ternary does not contain as many “transition-like” characteristics as the other pieces. This B section is much more lyrical, almost fooling the listener into thinking that it is a separate theme, until the return of the A section. By contrast, the pieces that only have an internal-ternary form and no separate transition like the fourth movement of Symphony No. 2 in C minor, Op. 17 (graph 1.7) and the third movement of Symphony No. 4 in F minor, Op. 36 (graph 1.8), these “B” sections have more transition-like elements. Tchaikovsky could be using this internal structure as a way to compensate for the lack of transition, using this “B” section as the “out of place” transition.

---

<sup>14</sup> This case is A’ “becoming” transition.

Introduction	Exposition		Development	Recapitulation	Coda
	Main theme	Sub theme			
<b>C major</b> mm. 1-22 V:HC	<b>C major</b> <b>A:</b> mm. 25-97 <b>B:</b> mm. 97-125 key is ambiguous, but it ends on a C major HC. <b>A':</b> mm. 125-198 C major	<b>A<sup>b</sup> major</b> mm. 203-252 <u>Closing section</u> Starts with MT mm. 253-323	mm. 323-477 <u>Retransition</u> with the MT mm. 477-513	<b>C major</b> Starts with ST mm. 513-651	m. 652

Symphony No. 2 in C minor, Op. 17, fourth movement (graph 1.7)

Exposition		Development	Recapitulation
Main Theme	Sub theme		
<b>F major</b> <b>A:</b> mm. 1-31 <b>B:</b> mm. 32-76 <b>A':</b> mm. 77-132  The A sections are clear in the key. The B section has lots of chromaticism and the key is unstable.	<b>A major</b> mm. 133-218 “shell” effect in the Tempo I (m. 170). In <b>D<sup>b</sup> major</b> <u>Retransition</u> in mm. 206- 218	NO Development	<b>F major</b> Main theme m. 218  Sub theme m. 265 “shell” in mm. 399

Symphony No. 4 in F minor, Op. 36, third movement (graph 1.8)

More remarkable is the first movement of the String Sextet in D minor, Op. 70 “*Souvenir de Florence*.” We can see an internal-ternary structure in the main theme of the exposition where the B section has transition-like qualities and A’ “becomes” transition. However, when we reach the recapitulation, we only get the A and B sections, and the A’ is missing. Therefore, we can say



that instead of having a B section that acts like a transition, we have a B section that becomes the transition instead (graph 1.9).

Exposition		Development	Recapitulation	Coda
Main theme <b>d minor</b>	Sub theme <b>C major</b>	mm. 260-445	<b>d minor</b>	<b>d minor</b>
A: mm: 1-17 B: mm. 18-39 A': mm. 40-56 ⇒ Transition Modulates to <b>F major</b> ends in V	ST 1 mm. 56-91  ST2 <b>A major</b> mm. 92-216  <u>Closing section</u> mm. 217-259		MT A: mm. 446-462 B: mm. 463-486 ⇒ transition (A' is missing)  ST1 mm. 487-521  ST2 <b>D major</b> mm. 522-646  <u>closing section</u> mm. 647-673  <u>Retransition</u> m. 674	m. 695 with MT material

String Sextet in D minor, Op. 70 “*Souvenir de Florence*”, first movement (graph 1.9)

Lastly, there is the second movement of the Piano Concerto No. 2 in G major, Op. 44. This particular movement is written as a proper ternary form,<sup>15</sup> however, when we look at the B section, it contains a large number of chromatic notes and sequences. All these elements belong in a transition section. This large B section behaves like an internal B section; therefore, we can say that Tchaikovsky does not only use B sections that behave like transitions at the internal-ternary form level, but he also uses them in large-scale B sections.

<sup>15</sup> By “proper” this is understood to be a ternary form movement, not internal ternary.

Introduction	A	B	A'	Coda
<b>D major</b> mm. 1-20	<b>D major</b> <b>a</b> : mm. 20-29 <b>b</b> : mm. 30-65 PAC in D major <b>a'</b> : mm. 66-92 (piano) PAC in D major <b>b'</b> : mm. 92-107 Circles back to D (behaves like a closing section)	mm. 108-220 Transition-like	<b>D major</b> <b>a</b> : mm. 221-230 <b>b</b> : mm. 231-285 <u>Closing section</u> m. 286	m. 310

Piano Concerto No. 2 in G major, Op. 44, second movement (graph 1.10)

The key structures that we have seen in the aforementioned pieces containing the internal- ternary form do not follow the traditional eighteenth-century ternary-form key structure. Naturally, breaking away from traditional sonata structure also means breaking away from the traditional key structure as well. As the next chapter discusses, most times the subordinate key seems quite arbitrary and detached from the main theme tonic until the Recapitulation reveals the connection between the keys.

Other works with internal ternary

Work	Movement	Section that contains internal ternary	Transition Characteristic
Symphony No. 2 in C minor, Op. 17	1	Introduction	A' $\Rightarrow$ transition to MT
Symphony No. 2 in C minor, Op. 17	4	Main theme	MT/TR fusion
Symphony No. 3 in D major, Op. 29	1	Main theme	MT/TR fusion
Symphony No. 3 in D major, Op. 29	3	Main theme	MT/TR fusion
Symphony No. 4 in F minor, Op. 36	3	Main theme	MT/TR fusion
Piano Sonata in G major, Op. 37	1	Main theme	Has an internal TR in the ST
Piano Sonata in G major, Op. 37	2	A and A' sections	
Piano Concerto No. 2 in G major, Op. 44	1	Subordinate theme	Has a separate TR
Symphony No. 5 in E minor, Op. 64	1	Main theme	MT/TR fusion
Symphony No. 5 in E minor, Op. 64	2	Only within the A section	
Symphony No. 5 in E minor, Op. 64	3	A and A' sections	
Symphony No. 5 in E minor, Op. 64	4	Introduction	A' $\Rightarrow$ transition to MT
Symphony No. 6 in B minor, Op. 74	1	Subordinate theme	Has a separate TR
Symphony No. 6 in B minor, Op. 74	2	A and A' sections	
<i>Romeo and Juliet</i> Overture		Main theme	A' $\Rightarrow$ transition
String Sextet in d minor, Op. 70 "Souvenir de Florence"	1	Main theme	A' $\Rightarrow$ transition

Graph 1.11

Other works with internal binary

Work	Movement	Section that contains internal binary	Transition Characteristic
Piano Sonata in G major, Op. 37	1	Subordinate theme	
Piano Concerto No. 2 in G major, Op. 44	1	Main theme	Has a separate TR
Piano Concerto No. 2 in G major, Op. 44	2	In the A and A' sections	B section behaves like a transition
<i>Romeo and Juliet</i> Overture		Introduction	B' $\Rightarrow$ transitional to the MT
String Sextet in D minor, Op. 70 " <i>Souvenir de Florence</i> "	1	Main theme of the Recapitulation	B $\Rightarrow$ transition in the recapitulation

Graph 1.12

## Chapter 2

### *The Fellowship of the Keys*

In a typical Type-3 sonata, the recapitulation brings back the main units of the exposition in the same order (main theme, transition and subordinate theme) in the home key. Of course, the order of these sections may change: we may have a recapitulation that starts with the subordinate theme rather than the main theme, which is known as a type-2 sonata.<sup>16</sup> With regards to the key structure, Caplin explains that:

“In order to avoid monotony, the recapitulation often explores the *flat-side* tonal regions of the home key, that is, those regions whose key signatures have more flats than that of the home key, such as the subdominant (IV), the supertonic (II), and regions derived from modal mixture (<sup>b</sup>VI, bIII, and <sup>b</sup>II)”<sup>17</sup>

As for the subordinate theme group, it typically gets transposed back into the home key in the recapitulation.<sup>18</sup>

We can see an almost complete break from the normative key structure when looking at the Recapitulations of Tchaikovsky’s works. Upon analyzing the second movement of Symphony No. 1 in G minor, Op. 13, we see that the overall key of the movement is E<sup>b</sup> major. When we get to the recapitulation section, it starts with the subordinate theme in the home key of E<sup>b</sup> major (making this a type-2 sonata), which follows the norm, however, the subordinate theme

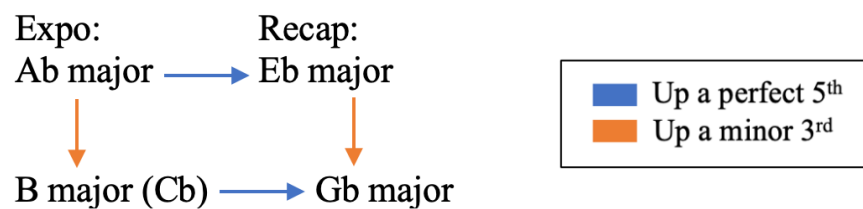
---

<sup>16</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 354.

<sup>17</sup> William Caplin, *Analyzing Classical Form: An Approach for the Classroom*, (Oxford University Press, 2013), 476.

<sup>18</sup> Caplin, *Analyzing Classical Form*, 484.

repeats itself in the key of  $G^b$  major. Yet this is not entirely arbitrary. When examining the manner in which the keys move in the subordinate theme between the exposition and the recapitulation, we can see that a pattern appears. In the exposition, the subordinate theme appears in  $A^b$  major and repeats itself in  $B$  major. In the recapitulation, instead of transposing everything back to the home key and staying there as practice mandate, Tchaikovsky decides to start the subordinate theme in  $E^b$  major and then modulates it to  $G^b$  major (graph 2.1).



Symphony No. 1 in  $G$  minor, Op. 13, second movement (graph 2.1)

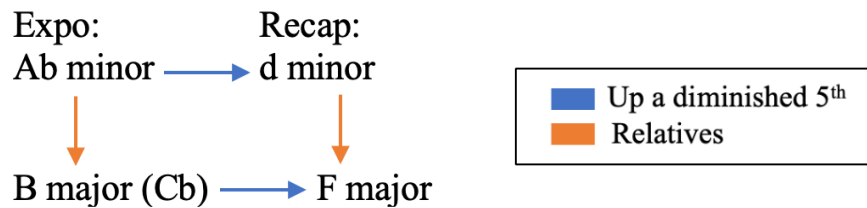
The choice of keys seems to be unrelated, but if we take the enharmonic of  $B$ , which is  $C^b$ , we can see that within each section the keys move by minor thirds, and across sections they move by perfect fifths, as seen in the grid above. In eighteenth-century Classical form, it was typical to transpose the exposition down a perfect fifth in the recapitulation. Here however, Tchaikovsky decided to transpose the keys up a perfect fifth, thus mixing eighteenth-century tradition with nineteenth-century practice.

This kind of key relationship and transposition also occurs in the first movement of Symphony No. 4 in  $F$  minor, Op. 36. Tchaikovsky starts the subordinate theme of the exposition in the key of  $A^b$  minor in measure 115 and then transposes it to  $B$  major in measure 120.<sup>19</sup> When

---

<sup>19</sup> In this section, we hear what sounds like a second subordinate theme being played by the cellos, while the “original” subordinate theme is being played simultaneously by the woodwinds. This creates a “shell” effect where the subordinate theme is being surrounded by a

we get to the recapitulation, he begins with the subordinate theme (another type-2 sonata) in d minor and then proceeds to transpose it to F major (graph 2.2).



Symphony No. 4 in F minor, Op. 36, fourth movement (graph 2.2)

Once more, if we take the enharmonic of B (C<sup>b</sup>), we can see that the keys move up by augmented fourths or diminished fifths across the exposition and the recapitulation. Within each section, the keys move by relatives.<sup>20</sup>

Even more noteworthy is the third movement of the Symphony No. 4 in F minor, Op. 36. Here we have the subordinate theme starting in the key of A major in measure 133. It is then transposed to D<sup>b</sup> major in measure 170. When the recapitulation starts in F major it stays in this key throughout the entire section. We can notice that the entire movement expands an octave by moving in major thirds, as seen in graph 2.3

---

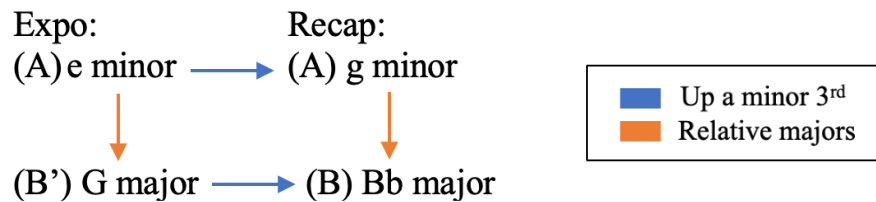
variation of the original theme, however, it is not a true “second” subordinate theme. This also occurs in Symphony No. 4 in F minor, Op. 36 in the first movement with the introduction theme.

<sup>20</sup> We would have to take the enharmonic of A<sup>b</sup> which is G# in order for the keys to move by relatives.





Another example of this characteristic is seen in the previously mentioned first movement of the Piano Sonata in G major, Op. 37. This case is slightly different because the subordinate theme group is structured more as a binary form instead of ternary. In the exposition, we see the “A” section of the subordinate theme in e minor. The “B” section is in B major, however, when it repeats (B’), it modulates to G major. In the recapitulation, the “A” section of the subordinate theme starts in g minor, and the “B” sections goes to the key of B<sup>b</sup> major.<sup>21</sup> Again, the keys move to their relative majors within their sections and by minor thirds across the exposition and the recapitulation, as seen in graph 2.5.



Piano Sonata in G major, Op. 37, first movement (graph 2.5)

Since the recapitulation starts with the “B” section of the main theme, this raises the question; can this still be considered a type-3 sonata, or is it considered a type-2 (see graph 1.3)? This particular movement is problematic in answering this question. There are a few things to take into consideration. According to Hepokoski and Darcy, a type-2 sonata can start with “P 1.2,”<sup>22</sup> which Caplin would call a main theme 2. The problem here is that this movement does

<sup>21</sup> The recapitulation of this movement does not follow the same order as the exposition. The recapitulation starts with the “B” section of the main theme in g minor, followed by the “A” section. The subordinate group goes A-A’-B, thus breaking the binary form structure as well.

<sup>22</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 379

not have a second main theme, it has one main theme that is structured as an internal-ternary form. The recapitulation starts with the B section of this one main theme, and from what we have seen, the B sections of most internal-ternary structures are transition-like. It would be as if the recapitulation was starting with a transition section. Doing this would not give the recapitulation the “return to the beginning” feeling that recapitulations are meant to have. However, this movement has a separate transition. The internal B section is lyrical, it is very “theme-like”<sup>23</sup> therefore we could start the recapitulation with this B section, and it would give the recapitulation a satisfying beginning. Going by this argument, you could argue a type-2 sonata. However, this B section belongs to the first (and only) main theme. Therefore, it could be labeled as a type-3 because the recapitulation technically starts with the main theme, it’s just not the very beginning of the main theme.

If we were to re-interpret this movement to argue for a Type-2 sonata, the internal ternary argument would have to be dismissed (see graph 2.6). The “A” section of the main theme would have to be labeled as main theme 1 and the “B” section would be labeled as main theme 2. By doing this, the recapitulation now starts with the second main theme, or “P 1.2” as Hepokoski labels it. As previously mentioned, this is acceptable for a Type-2 sonata. One of the problems with having two main themes in this movements is that they are in two separate keys. Caplin explains that “A sonata exposition may begin with two distinct main themes to form a main-theme group. In this case, each theme closes with a PAC in the home key.”<sup>24</sup> One of the main functions of the main theme is to clearly establish the tonic key. For this movement, that key is G major, not g minor. For this reason, you cannot have two main themes in two different keys.

---

<sup>23</sup> See graph 1.3 for more details

<sup>24</sup> Caplin, *Analyzing Classical Form*, 298

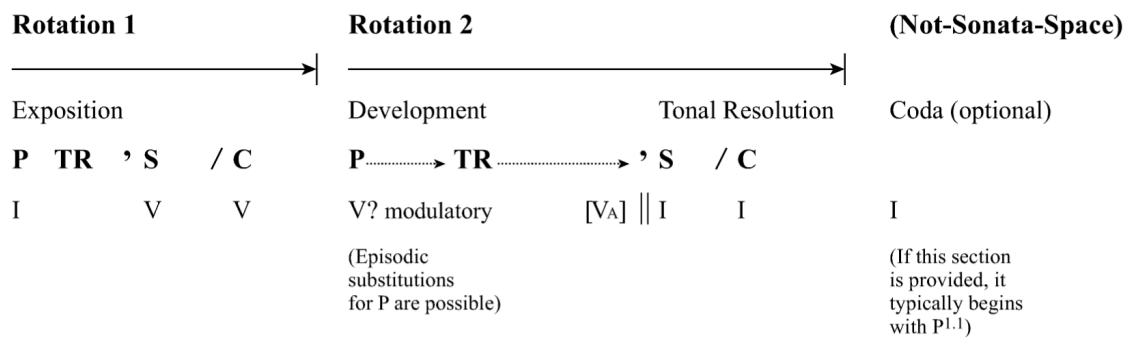
Interpreting the main theme as an internal-ternary structure works best because we have one main theme in the tonic key that temporarily goes to the wrong mode. The key “fixes” itself when the A’ section appears.

Exposition			Development	Recapitulation
Main theme	Transition	Sub theme		
<p><b>G major</b></p> <p>MT 1 mm. 1-7 PAC</p> <p><b>g minor</b></p> <p>MT 2 mm. 18-40 HC</p> <p><b>G major</b></p> <p>MT 1 mm. 41-57 PAC</p>	<p><b>e minor</b></p> <p>“de-energizing” mm. 58-68 HC</p>	<p><b>e minor</b></p> <p>ST 1 mm. 71-78</p> <p><b>B major</b></p> <p>ST 2 mm. 79-89</p> <p><b>G major</b></p> <p>ST 1 mm. 90-95</p> <p>ST 2 mm. 96-110</p>	<p>mm. 111-183</p>	<p><b>g minor</b></p> <p>Starts with MT2 mm. 184-206</p> <p>MT 1 mm. 207-233</p> <p>ST 1 mm. 234-241</p> <p><b>B<sup>b</sup> major</b></p> <p>ST 2 mm. 248-266</p> <p><b>G major</b></p> <p>MT 1 m. 268</p>

Piano Sonata in G major, Op. 37, first movement, re-interpretation (graph 2.6)

The main problem with the recapitulation is that it does not begin with the tonic key of G major. This B section is in g minor in the exposition when traditionally this should remain in the tonic. In the recapitulation, Tchaikovsky still keeps this section in g minor. The beginning of the main theme (the A section) also gets transposed to g minor. This gives the listener the impression that the tonic is actually g minor not G major. It’s not until the end of the recapitulation that the G major tonic returns with the repetition of the A section. We could argue that Tchaikovsky is

using the g minor key as a “replacement” tonic in the recapitulation since technically it is the correct key, just in the wrong mode. When the A section repeats at the end of the recapitulation, Tchaikovsky “fixes” the tonic and transposes it back to the original G major key. We could argue that because the B section remains in its original key in the recapitulation (even though it is in the wrong mode), and because the B section belongs to the main theme, this movement can be considered more a type-3 sonata than a type-2.



Example of a type 2 sonata structure (graph 2.7)<sup>25</sup>

As we have seen, the keys that Tchaikovsky chooses to modulate to in the exposition are cohesive once we reach the recapitulation. In the next chapter, we’ll see how he deviates from the normative cadential ending in certain sections, by opting for a more unique manner of closure.

<sup>25</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 354.

Full list of pieces mentioned

Piece	Keys		Relationship
	Exposition	Recapitulation	
Symphony No. 1 in g minor, Op. 13, second movement	A <sup>b</sup> major, B major (C <sup>b</sup> )	E <sup>b</sup> major, G <sup>b</sup> major	<ul style="list-style-type: none"> <li>• Perfect fifths across sections</li> <li>• minor thirds within sections</li> </ul>
Symphony No. 4 in f minor, Op. 36, first movement	A <sup>b</sup> minor (G <sup>#</sup> ), B major (C <sup>b</sup> )	d minor, F major	<ul style="list-style-type: none"> <li>• Diminished fifths across the sections</li> <li>• Relatives within the sections.</li> </ul>
Piano Sonata in G major, Op. 37, first movement	e minor, G major	g minor, B <sup>b</sup> major	<ul style="list-style-type: none"> <li>• Minor thirds across sections</li> <li>• Relatives within sections</li> </ul>
Symphony No. 4 in f minor, Op. 36, third movement	F major, A major	D <sup>b</sup> major-F major	Equal division of the octave.
Symphony No. 5 in e minor, Op. 64, first movement	b minor, c <sup>#</sup> minor	D major, E major	Relatives within sections

graph 2.8

### Chapter 3

#### *Sections Without Borders*

Traditionally, every section should have a clear cadential ending. For a main theme, this is usually done with a perfect authentic cadence in the tonic key. Transitions usually end in half cadences, or occasionally in a non-cadential dominant arrival. And subordinate themes typically end in a perfect authentic cadence in the subordinate key. Already in the eighteenth century with Haydn, some of these boundaries were more obscure or non-existent. A transition may lack a concluding function, a subordinate theme may lack initiating function, or both may occur at the same time.<sup>26</sup> Caplin calls this “fusion” while Hepokoski and Darcy refer to this as a “continuous exposition.”

In the first chapter we discussed how “fusion” could potentially create an internal-ternary structure within certain sections. This was mostly common within the main theme/transition sections, but it was also seen in introductions and subordinate themes. Having clearly defined cadential endings to distinguish borders became less common during the nineteenth century. Caplin states that “. . . a lack of cadential closure for thematic units.”<sup>27</sup> is a stylistic characteristic of Romantic composers. In Tchaikovsky’s works, the sections are usually fused together, or he implements unconventional ways to distinguish his sections.

As previously stated, in classical works the transition would end in a dominant harmony followed by a pause or a textural break right at the literal end of the transition known as a medial

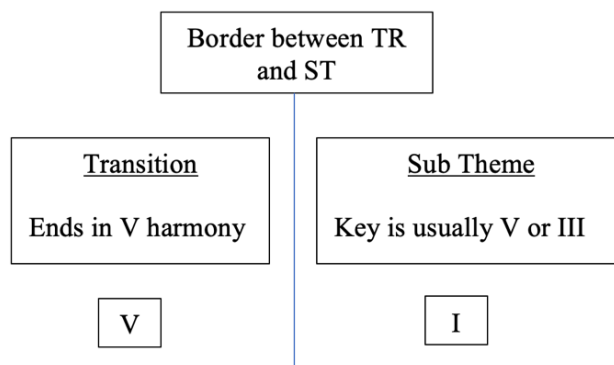
---

<sup>26</sup> Caplin, *Analyzing Classical Form*, 401

<sup>27</sup> Caplin, *Beyond the Classical Cadence: Thematic Closure in Early Romantic Music*, 4.

caesura, in order to launch the beginning of the subordinate theme.<sup>28</sup> Tchaikovsky for the most part foregoes the use of dominant harmony (he usually maintains the textural break) and implements the use of an augmented-sixth chord to initiate the new section. An example of this is seen in the first movement of Symphony No. 3 in D major, Op. 29. The main theme of this movement is structured as an internal-ternary form with the final A' section “becoming” transitional (see graph 3.2). As mentioned, this “transitional” section is expected to end with a half cadence, however, Tchaikovsky used a French augmented-sixth chord right before the beginning of the subordinate theme (graph 3.1). Typically, augmented-sixth chords have a pre-dominant function. They are followed by a dominant chord that later cadences. What is extraordinary about Tchaikovsky’s use of them here is that their harmonic function “overlaps” with the beginning of the new theme. Instead of resolving the French +6 chord before the new theme begins, Tchaikovsky resolves to a  $i6_4/V$  chord in b minor at the very beginning of the subordinate theme as shown in graph 3.1. The conclusion of the transition “spills over” into the subordinate theme section.

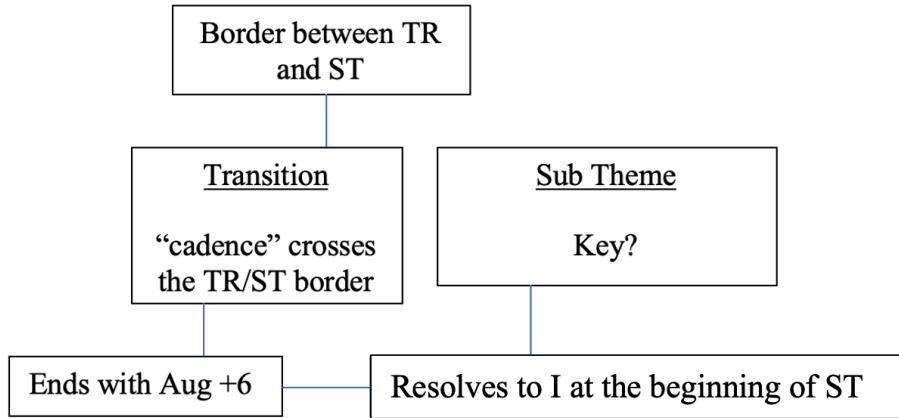
What is expected:




---

<sup>28</sup> Caplin, *Analyzing Classical Form*, 709

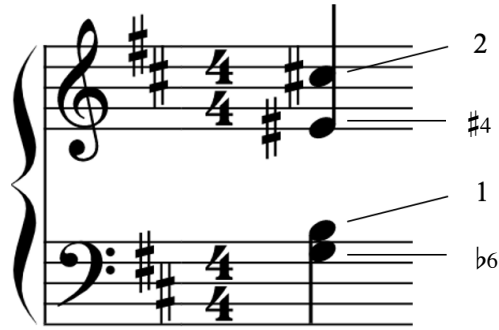
What Tchaikovsky is doing:



The image shows a musical score for the first movement of Tchaikovsky's Symphony No. 3 in D major, Op. 29, measures 139-145. The score includes staves for Oboe I (Ob. I), Cor I (Cor. I), Violin I (Viol. I), and Bass. The key signature is D major. The tempo is marked *poco meno mosso*. The dynamics are *p* (piano) and *f* (forte). The score features a transition from a transition (TR) to a subtheme (ST). The subtheme is in B minor, as indicated by the annotation "Sub theme in b minor" in a box above the Oboe I staff. The subtheme begins with a solo Oboe I part marked *Solo molto espr.* and *p*. The transition ends with an augmented sixth chord (+6), which resolves to the tonic (I) at the beginning of the subtheme. The score is annotated with "Fr +6" and "i 64/V" at the bottom.

Symphony No. 3 in D major, Op. 29, first movement mm. 139-145 (graph 3.1)





Fr +6

Symphony No. 3 in D major, Op. 29, first movement. Reduction of m. 42 (3.1 continued)

Introduction	Exposition		Development	Recapitulation
	Main theme	Sub theme		
<b>D major</b> mm. 1-80	<b>D major</b> mm. 80-136 <b>A:</b> mm. 80-95 19 <sup>th</sup> C. HC <b>B:</b> mm. 96-127 <b>A'</b> ⇒ transitional: mm. 127-142 Ends with a French +6	<b>b minor</b> ST 1 mm. 143-173 Ends with a Ger +6 <b>A major</b> ST 2 mm. 174-206 PAC <u>Closing section</u> mm. 208-219	mm. 220-308	<b>D major</b> m. 308 Same as main theme <b>e minor</b> m. 342 ST 1 <b>D major</b> m. 388 ST 2

Symphony No. 3 in D major, Op. 29, first movement (graph 3.2)

Tchaikovsky repeats this in measure 173 for the closing of the first subordinate theme as well, this time using a German augmented-sixth chord (graph 3.3).<sup>29</sup> Just like in the previous section, the chord does not resolve to I 64 until the very beginning of the second subordinate

<sup>29</sup> Dvorak also uses a German augmented sixth chord to close the transition section of the first movement of the string quartet No. 12, Op. 19 “American”

theme creating a harmonic overlap. Using this chord gives a smooth transition into the next subordinate key which is in A major.

Subordinate theme 1 in b-minor

Ger +6

Symphony No. 3 in D major, Op. 29, first movement mm. 168-173 (graph 3.3)

Sub theme 2 in A major

I 64

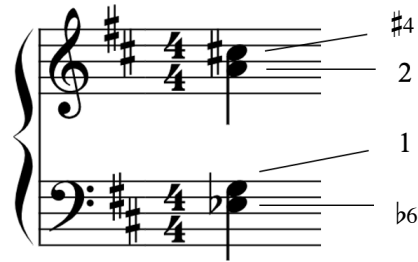
Symphony No. 3 in D major, Op. 29, first movement mm. 174-178 (graph 3.3 continued)

Tchaikovsky uses augmented-sixth chords as a concluding function in ternary-form movements as well. In the second movement of Symphony No. 5 in E minor, Op. 64, he does this to end the Aa' section (graph 3.4) right before the beginning of the second theme in measure 44 (graph 3.5). As in the previous examples, the German augmented-sixth chord does not resolve until the beginning of the next theme. Unlike the previous example however, this one resolves to the actual tonic chord.

Introduction	A	B	A'	Coda
<b>b minor</b> mm. 1-8	<b>D major</b> a: Theme 1 mm. 9-23  <b>F# major</b> b: Theme 2 (very short version) mm. 24-32  <b>D major</b> a': Theme 1 mm. 33-44 Ends with Fr +6 chord.  Full version of theme 2 mm. 44-66.	<b>f# minor</b> mm. 66-94  <b>c# minor</b> <u>Retransition</u> mm. 95-107  m. 99 (Ger +6) Introduction theme of the first movement.	<b>D major</b> Theme 1 mm. 108-141  Theme 2 mm. 142-157	<u>Coda 1</u> Introduction of first movement mm. 158-169  <u>Coda 2</u> Theme 2 m. 170

Symphony No. 5 in E minor, Op. 64, second movement (graph 3.4)





Fr +6

Symphony No. 5 in E minor, Op. 64, second movement. Reduction of measure 44 (graph 3.5 continued)

He also uses a German augmented-sixth chord towards the end of the  $c\#$  minor retransition section in measure 99. This theme is originally from the introduction of the first movement<sup>30</sup> (graph 3.6). At first glance, this chord appears as a dominant chord and also functions as one (G-A-C $\#$ -E). Although, if we re-spell this chord enharmonically to be A-C $\#$ -E-F $\times$  it spells out a German augmented-sixth chord. It is being reinterpreted as a V42 chord in D major. The chord finally resolves in a I6 chord in D major in measure 110. This is the A' section that starts with theme one.

---

<sup>30</sup> This is a re-occurring theme throughout the entire symphony.

Retransition in c# minor

95

Stringendo

Fl. III  
III

Ob. I

Klar. I  
I

Fag. I  
II

Hr. I  
II  
III  
IV

Trp. I  
II

Pos. III  
Tuba

Pk.

Viol. I

Viol. II

Viola

Vcll.

Kb.

*cresc.*

*pp*

*mf*

*f*

*ff*

*Stringendo*

*arco*

*cresc.*

*ff*

V

Symphony No. 5 in E minor, Op. 64, second movement mm. 95-98 (graph 3.6)

Theme from the introduction of the first movement

99 **Tempo precedente** (♩ = 100)

Fl. I  
Fl. II  
Fl. III  
Ob. I  
Ob. II  
Klar. I  
Klar. II  
Fag. I  
Fag. II  
Hr. I  
Hr. II  
Hr. III  
Hr. IV  
Trp. I  
Trp. II  
Pos. I  
Pos. II  
Pos. III  
Tuba  
Pk.

Ger +6

Symphony No. 5 in E minor, Op. 64, second movement mm. 99-102 (graph 3.6 continued)

A' section in D major

**Tempo I**

The score consists of four staves. The top staff has a treble clef and a key signature of one sharp (F#). The bottom three staves have bass clefs. The music is marked with 'pizz.' (pizzicato) and 'mf' (mezzo-forte). The top staff also includes 'sul G.' and 'molto esp.' (molto espressivo). Roman numerals 'V 42' and 'I 6' are placed below the staves.

Symphony No. 5 in E minor, Op. 64, second movement mm. 108-111 (graph 3.6 continued)

The left diagram shows a chord reduction for V42 in D major. The treble clef has a D4 and a sharp sign. The bass clef has a D3. The right diagram shows a German augmented sixth chord (Ger +6). The treble clef has a D4, a sharp sign, and a b3. The bass clef has a D3, a sharp sign, and a #4. Labels b3, 1, b6, and #4 point to these notes.

Symphony No. 5 in E minor, Op. 64, second movement. Reduction of measure 99 (graph 3.6)

More unique is the case of the fourth movement of Symphony No. 1 in G minor, Op. 13 (graph 3.7). In this movement, Tchaikovsky decided to use a German augmented-sixth chord in a small “codetta-like” section to conclude the subordinate theme. Instead of circling around the first scale degree (V-I) as a traditional codetta would, the harmony moves Ger +6 – i (graph 3.8). The augmented sixth chord is being treated like a V chord, only in this case the codetta is Ger +6-i.



Introduction	Exposition			Development	Recapitulation	Coda
	Main theme	Transition	Sub theme			
<b>g minor</b>  mm. 1-46 HC mm. 34  Intro ⇒ MT mm. 46-65	<b>G major</b>  MT mm. 65-89 PAC	mm. 89-123	<b>b minor</b>  mm. 126-177 Theme from the slow introduction PAC  Small “codetta” section using Ger +6 chords	mm. 181-282	<b>G major</b>  MT m. 282  ST m. 345  Intro m. 355.  Augmentation of rhythm of the ST in m. 430. (apotheosis)	m. 467

Symphony No. 5 in E minor, Op. 64, fourth movement (graph 3.7)

Ger +6 i Ger +6 i Ger +6 i Ger +6 i

Symphony No. 1 in G minor, Op. 13, fourth movement mm. 169-177 (graph 3.8)

The *Romeo and Juliet* Overture (graph 1.6) is a similar case to that of the second movement of Symphony No. 5 in E minor, Op. 64. In this piece, the main theme is in b minor. Traditionally, the subordinate theme would go to the relative key of D major. When we first hear this A chord, this is what we immediately think is going to happen. However, Tchaikovsky

decided to change the function of this chord and turned it into a German augmented-sixth chord to close the transition section to modulate to the distant key of D<sup>b</sup> major instead (graph 3.9). In this case, the G would have to be re-spelled as a F<sup>\*</sup> in order to achieve the flat six. Once again, the augmented-sixth chord does not resolve to I 6<sub>4</sub> until the beginning of the subordinate theme.

Transitional section in b-minor

Ger +6

*Romeo and Juliet* Overture, mm. 176-183 (graph 3.9)

Sub theme in Db major

I 64

*Romeo and Juliet* Overture, mm. 184-187 (graph 3.9 continued)

original                      Ger +6

*Romeo and Juliet* Overture. Reduction of measure 182 (graph 3.9)

Furthermore, as mentioned in chapter 1, the introduction section also has a peculiar ending. This section ends in a first inversion one chord of b minor (i6), not the expected half cadence that traditionally concludes an introduction.

Another manner in which Tchaikovsky concludes sections is with the use of auxiliary cadences. An auxiliary cadence is defined as “. . . a harmonic progression that contains a V-I motion but lacks an opening tonic.”<sup>31</sup> The reason for doing this is to “. . . give rise to a feeling of expectancy by shifting the weight of the tonality towards the end of a progression.”<sup>32</sup> As can be seen in the opening of the second movement of String Sextet in D minor, Op. 70 “*Souvenir de Florence*.” (graph 3.10), the movement does not open with a tonic chord. It starts with a predominant ii chord. Doing this delays the establishment of the D major tonality. The root position tonic chord does not arrive until after the Grand Pause in measure 12, which is the beginning of the main theme.

Tchaikovsky’s use of the auxiliary cadence in this piece has a similar harmonic function as the augmented-sixth chords that he used in the pieces previously mentioned. These chords resolve at the beginning of the subordinate theme, overlapping their function with that of the subordinate theme section. He is implementing the same technique with this auxiliary cadence. He is delaying the resolution of the cadence right until the opening of the main theme. Tchaikovsky is doing the same harmonic overlap but with a different harmonic technique.

---

<sup>31</sup> Allen Cadwallander and David Gagné, *Analysis of Tonal Music; A Schenkerian Approach*, (Oxford University Press, 2007), 206.

<sup>32</sup> Poundie Burstein, Unraveling Schenker’s Concept of the Auxiliary Cadence, *Music Theory Spectrum*, Vol. 27, no. 2 (2005), 161.

II.

Adagio cantabile e con moto. (♩ = 60) G. P.

iim7 I6 ii6 vii/v V ii64 V65 Vm7/III V65 iim7 ii/III V43

I

String Sextet in D minor, Op. 70 "Souvenir de Florence," second movement mm. 1-17 (graph 3.10)

ii N V I

String Sextet in D minor, Op. 70 "Souvenir de Florence," second movement mm. 1-12 voice leading (graph 3.11)

One of the reasons why Tchaikovsky might have opted to use augmented-sixth chords to conclude these transitions could be because of his choice of subordinate key. As we have seen, he tends to modulate to rather distant keys for the subordinate theme. Augmented-sixth chords

are very flexible chords, particularly the German augmented-sixth chord. Using this chord, as well as the other augmented-sixth chords are a very practical way of modulating to these distant keys. They also allow Tchaikovsky to create tension, making the opening of the subordinate theme even more special and dreamlike.

In this chapter, we saw how Tchaikovsky used non-conventional chords to conclude the sections of his works. In the following chapter we will take a look at how he ends the overall structure of his pieces, by bringing back introductory themes for the coda section.

Full list of pieces mentioned

Piece	Style of conclusion	Section	Style of conclusion	Section
Symphony No. 1 in G minor, Op. 13, fourth movement	Ger +6 chord	Codetta-like section in the subordinate theme		
Symphony No. 3 in D major, Op. 29, first movement	Fr +6 chord	Main theme	Ger +6 chord	Subordinate theme 1
Symphony No. 5 in E minor, Op. 64, second movement	Fr +6 chord	Theme 1	Ger +6 chord	B section
<i>Romeo and Juliet</i> Overture	Ger +6 chord	Transition		
String Sextet in D minor “ <i>Souvenir de Florence</i> ”, second movement	Auxiliary cadence	Introduction		

Graph (3.12)

## Chapter 4

### *The Coda Recall*

Another standard practice for Tchaikovsky is to end his symphonies or works with a coda. This is hardly unusual for any composer, yet the way Tchaikovsky goes about doing some of his codas are very unique. A coda can be defined as “. . . an optional section that follows the recapitulation and is thus distinct from it.”<sup>33</sup> It can often be difficult to realize exactly when a coda has started but a general rule to go by is that “. . . the coda begins once the recapitulation has reached the point at which the exposition’s closing materials, normally including final cadence, have been revisited in full.”<sup>34</sup>

Melodically speaking, a coda can draw from any material previously established within the exposition. One of the most common manners to begin a coda is using main theme material. While Tchaikovsky does this plenty of times, what is most unusual are the codas that start with introductory material instead. Referred to by Hepokoski and Darcy as the “Introduction-Coda Frame,” it is when “. . . material from the introduction returns as all or part of the coda.”<sup>35</sup> Examples of this practice are quite sparse during Classical times, but they’re not completely unheard of. Hepokoski and Darcy mention examples like the first movement of the Mozart String Quartet in E-flat, Haydn’s Symphony 103 in E-flat, and Beethoven’s “Pathétique”

---

<sup>33</sup> Caplin, *Analyzing Classical Form*, 520.

<sup>34</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 281.

<sup>35</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 304

Sonata.<sup>36</sup> This practice became more common during the late nineteenth century with composers like Schubert, Mendelssohn and Berlioz. Furthermore, Hepokoski explains that:

“Whenever we find an introduction-coda frame the interior sonata seems subordinated to the outward container. The introduction and coda represent the higher reality, under whose more immediate mode of existence— or under whose embracing auspices— the sonata form proper is laid out as a contingent process, a demonstration of an artifice that unfolds only under the authority of the prior existence of the frame.”<sup>37</sup>

This statement can be understood as the introduction and the coda are at a higher level within the sonata structure. Everything else is centered around the theme or themes that are contained within these sections. For example, in the first movement of Symphony No. 2 in C minor, Op. 17, the introduction has an internal-ternary structure (graph 4.1). The coda in measure 355 is the same as the A section of the introduction. However, this theme is not contained in just these two sections. It can be heard throughout the entire movement.

---

<sup>36</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 304

<sup>37</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 305.



Introduction	Exposition		Development	Recapitulation	Coda
	Main theme/transition fusion	Sub theme			
<b>c minor</b> <b>A:</b> mm. 1-22 PAC <b>B:</b> mm. 23-48 H.C <b>A':</b> mm. 48-52	mm. 54-86	<b>E<sup>b</sup> major</b> mm. 87-138 PAC  <b>D<sup>b</sup> major</b>  <u>Closing Section</u> m. 138	mm. 158-218	<b>c minor</b> Main theme m. 219  <b>C major</b>  Sub theme m. 246	m. 355  A section of Intro

Symphony No. 2 in C minor, Op. 17, first movement (graph 4.1)

Traditionally, the main theme and the subordinate themes get developed in the development section, not the introduction theme. This development section begins with the introduction theme being played by the clarinet in measure 160, followed by the horns in measure 168. As can be seen by graphs 4.2, this theme gets repeated various times by different instruments. It can be argued that the introduction theme takes on more of a “main theme” role in the development since it is the only theme that truly gets developed. Fragmentations of the main theme is played throughout the second half of the development section. The subordinate theme does not get developed in any way. The main theme appears again in the beginning of the recapitulation in measure 219.

Development

H  
Cl. *a 2*  
*f marc.*

Viol. I  
Viol. II  
Viola  
Celli  
C-B.

H

Cor. I-II  
*a 2*

Viol. I  
Viol. II  
Celli  
C-B.

Symphony No. 2 in C minor, Op. 17, first movement measures 158-173 (graph 4.2)



The final movement of Symphony No. 5 in E minor, Op. 64 is a similar case (graph 1.5). While we can notice the “Introduction-Coda Frame” that Hepokoski talks about, in this symphony it is on a larger scale. The introduction theme of this movement is not only repeated in the coda, but it is a reoccurring theme throughout the entire symphony. Like an earworm, this theme is played in every single movement either as an introduction, coda, or both as is the case of the fourth movement.



Symphony No. 5 in E minor, Op. 64, first movement. Extract from the introduction mm. 1-8 (Clarinet) (graph 4.3)



Symphony No. 5 in E minor, Op. 64, first movement. Extract from introduction mm. 11-18 (graph 4.3 continued)

IV

Introduction

**Finale**  
**Andante maestoso (♩=80)**

Flöten I II  
 Flöte III (Piccolo)  
 Oboen I II  
 Klarinetten in A I II  
 Fagotte I II  
 Hörner in F I II III IV  
 Trompeten in A I II  
 Posaunen I II  
 Posaune III Tuba  
 Pauken in G, C, E

Violine I  
 Violine II  
 Viola  
 Violoncell  
 Kontrabaß

Klar. II  
 Fag. II  
 Hr. III IV  
 Tuba

Viol. I  
 Viol. II  
 Viola  
 Vcll.  
 Kb.

Symphony No. 5 in E minor, Op. 64, fourth movement mm. 1-12 (graph 4.4)



Coda

472 **Moderato assai e molto maestoso**

Fl. I II  
III

Ob. I  
II

Klar. I  
II

Fag. I  
II

Hr. I  
II  
III  
IV

Trp. I

Pos. I  
II

Pos. III  
Tuba

Pk.

Viol. I

Viol. II

Viola

Vcll.

Kb.

**Moderato assai e molto maestoso**

*largamente*  
**ff**

*largamente*  
**ff**

*largamente*  
**ff**

*largamente*  
**ff**

Symphony No. 5 in E minor, Op. 64, fourth movement mm. 472-476 (graph 4.5)

477

Fl. I, II, III  
Ob. I, II  
Klar. I, II  
Fag. I, II  
Hr. I, II, III, IV  
Trp. I, II  
Pos. I, II, III  
Tuba  
Pk.  
Viol. I, II  
Viola  
Vcll.  
Kb.

Symphony No. 5 in E minor, Op. 64, fourth movement mm. 477-481 (graph 4.5 continued)



There is a second coda in this movement starting in measure 504. This one contains completely new material. It's faster and more energetic. However, Tchaikovsky does manage to sneak in a trumpet fanfare that is reminiscent of the introduction theme in measure 546.



Symphony No. 5 in E minor, Op. 64, fourth movement mm. 541-547 (graph 4.6)



Symphony No. 5 in E minor, Op. 64, fourth movement mm. 548-555 (graph 4.6 continued)

The second movement (see graph 3.4 more details), and the third movement of Symphony No. 5 in E minor, Op. 64 also have this introduction theme as part of its coda, but not as the introduction. In the second movement, the theme is being played by the bassoons and the trombones simultaneously. In the third movement (graph 4.7), the theme is being played by the clarinets and the bassoons.

A	B	A'	Coda
<b>A major</b>	<b>f# minor</b>	<b>A major</b>	m. 214
<b>A:</b> mm. 1-19	mm. 72-144	<b>A:</b> mm. 145-160	New theme.
<b>B:</b> mm. 19-37		<b>B:</b> mm. 161-177	Repeats introduction of the first movement in measure 241.
<b>A':</b> mm. 37-72 PAC		<b>A':</b> mm. 178-213 PAC	
*m. 57 is an extension of A' (new theme)		* Same as A section. Measure 198 is an extension of A' section.	

Symphony No. 5 in E minor, Op. 64, third movement (graph 4.7)

Coda

The musical score for the Coda section (measures 156-161) of the third movement of Symphony No. 5 in E minor, Op. 64. The score is for a full orchestra. The tempo markings are *Più animato* and *Allegro non troppo*. The score includes dynamic markings such as *mf*, *p*, and *fff*. A blue box highlights the woodwind and string parts from measure 156 to 161, and an orange box highlights the brass and percussion parts from measure 156 to 161.

Symphony No. 5 in E minor, Op. 64, second movement mm. 156-161 (graph 4.8)

Symphony No. 5 in E minor, Op. 64, third movement mm. 238-247 (graph 4.9)

Symphony No. 5 in E minor, Op. 64, third movement mm. 248-257 (graph 4.9 continued)

The first movement of the String Quartet No. 3 in E<sup>b</sup> major, Op. 30 has what can be argued as a two-part introduction as seen in graph 4.12 and 4.13. At first glance, you could argue that since the first introduction ends in dominant harmony, that what follows is the main theme. Or at least one of the main themes. However, when we arrive at the development section, this theme (measure 22-78) does not get developed as would be expected for a main theme. We have seen the case where introduction material gets developed like in the first movement of the

Symphony No. 2 in C minor, Op. 17 mentioned previously. However, fragmentations of the main theme still made an appearance in the development (graph 4.10 and 4.11).

Main Theme

Symphony No. 2 in C minor, Op. 17, first movement mm. 61-66 (graph 4.10)

Fragmentation of Main Theme

Symphony No. 2 in C minor, Op. 17, first movement mm.193-197 (graph 4.11)

With the first movement of the string quartet No. 3 in E<sup>b</sup> major, Op. 30, only the themes starting in measure 79 are developed, along with the subordinate theme starting in measure 135. The coda of this movement contains the second introduction theme.

Introduction	Exposition		Development	Recapitulation	Coda
	Main theme	Sub theme			
<b>E<sup>b</sup> minor</b>  Two-part introduction  <u>Intro 1</u> mm. 1-21 ends in V  <u>Intro 2</u> mm. 22-78	<b>E<sup>b</sup> minor</b>  mm. 79-130  Ends with a double bar. Immediate key change to Bb major.  NO TRANSITION <sup>38</sup>	<b>B<sup>b</sup> major</b>  mm. 135-223	mm. 223-340	<b>E<sup>b</sup> minor</b>  MT m. 340  <b>A major</b>  Replacement ST <sup>39</sup> mm. 389 from the exposition	m. 590  With second introduction

String Quartet No. 3 in E<sup>b</sup> minor op. 30, first movement (graph 4.12)

---

<sup>38</sup> We can argue that this movement does not have a transition given that there is no modulation to the subordinate key. The subordinate theme starts immediately after the double bar in measure 135.

<sup>39</sup> Called a “replacement” subordinate theme because this new theme replaces the original subordinate theme found in the exposition.



String Quartet No. 3 in E<sup>b</sup> minor op. 30, first movement mm. 595-629 (graph 4.14 continued)

Next we have the fourth movement of the Symphony No. 1 in G minor, Op. 13 (graph 3.7). This movement has an introduction that is played in the coda in a grand apotheosis manner. It contains augmentation of rhythm and is played in a fanfare style by the brass. Furthermore, this theme is also used as the subordinate theme starting in measure 126, as well as in the development section. In characteristic with the Introduction-Coda Frame, this introduction theme is heard throughout the entire movement.

Introduction

Symphony No. 1 in G minor, Op. 13, fourth movement mm. 16-22 (graph 4.15)

Coda

Symphony No. 1 in G minor, Op. 13, fourth movement mm. 431-441 (graph 4.16)



Lastly, we have Symphony No. 4 in F minor, Op. 36. While not as grand as Symphony No. 5 where the introduction theme is played throughout the entire symphony, in the fourth symphony, the introduction theme fanfare is heard heavily throughout the first movement and also the final movement. In the first movement, we can see the introduction fanfare with the triplet rhythm being played by the brass.

Introduction

**Andante sostenuto**

The musical score is arranged in a standard orchestral format. The woodwind section includes two flutes, two oboes, two clarinets in B, and two bassoons. The brass section includes two horns in F, two trumpets in F, an alto/tenor section, two baritone players, two bass players, and a tuba. The percussion section includes drums in F, C, and A. The score is in F minor and 3/4 time. The tempo is marked 'Andante sostenuto'. The brass section is highlighted with a blue box, showing a triplet rhythm.

Symphony No. 4 in F minor, Op. 36, first movement, mm. 1-7 (graph 4.17)

This theme is also heard in the development section (graph 4.18), following the example of Symphony No. 2 in C minor, Op. 17. In the coda, we can hear the introduction triplet theme

being played in the background by the brass while the strings play the main coda theme, as seen in graph 4.19.

Development

192

Klar. 1.2 in B

Fag. 1.2

1.2 in F  
Hrn.

3.4 in F

Trp. 1.2 in F

Pk.

Viol. 1

Viol. 2

Vla.

Vc.

Kb.

*fff con tutta forza*

Symphony No. 4 in F minor, Op. 36, first movement mm. 192-198 (graph 4.18)

Coda

378 **Molto più mosso**

1. Fl. *p poco a poco cresc.*

2. Fl. *p poco a poco cresc.*

Ob.1,2 *p poco a poco cresc.*

Klar. 1,2 in B *p poco a poco cresc.*

Fag.1,2 *p poco a poco cresc.*

Hrn.1,2 in F

**Molto più mosso**

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

**Molto più mosso**

388

1. Fl. *p poco a poco cresc.*

2. Fl. *p poco a poco cresc.*

Ob.1,2 *p poco a poco cresc.*

Klar. 1,2 in B *p poco a poco cresc.*

Fag.1,2 *p poco a poco cresc.*

Hrn.1,2 in F *p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

*p poco a poco cresc.*

Symphony No. 4 in F minor, Op. 36, first movement, mm. 378-387 (graph 4.19)

888

1. Fl.

2. Fl.

Ob.1.2

Klar. 1.2 in B

Fag.1.2

1.2 in F Hrn.

3.4 in F

Trp.1.2 in F

Btb.

*mf/cresc.*

Viol.1

Viol.2

Vla.

Vc.

Kb.

*f cresc.*

*f cresc.*

*f cresc.*

*f cresc.*

*f cresc.*

Symphony No. 4 in F minor, Op. 36, first movement, mm. 388-392 (graph 4.19 continued)

In the fourth movement, we only hear the first movement introduction theme in the recapitulation section, not the coda. This particular movement is considered a type 4-1 sonata form (see graph 4.22). This sonata-form type is a mixture of a standard type 1 sonata and a rondo form. A type 1 sonata lacks a development section, it is a “double-rotation structure”<sup>40</sup> as described by Hepokoski and Darcy. This means that after the exposition rotation is concluded, it is followed by the recapitulation rotation. Hepokoski and Darcy explain that

“When the Type 1 sonata is blended with the rondo, both the expositional and the recapitulatory rotations end with a retransition and dominant preparation for a tonic return of P. After the recapitulation is completed, its subsequent retransition leads once again to a third tonic statement of P— or to a slightly varied allusion to it.”<sup>41</sup>

Because of this sonata type is a mixture of a Type 1 and a rondo form, we cannot truly say that it is implementing the use of the “Introduction-Coda Frame.” The introduction theme of the first movement is heard in the B’ section or the “second recapitulation” section of the Type 4-1.

---

<sup>40</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 407

<sup>41</sup> Hepokoski and Darcy, *Elements of Sonata Theory*, 407

Recapitulation  
(B' section)

199 Andante  $\text{♩} = 60$

The score is for measures 199-205, marked 'Andante' with a tempo of  $\text{♩} = 60$ . The key signature is F minor. The woodwind and trumpet parts are highlighted with a blue box. The parts include:

- Kl. Fl. 1 and 2
- Fl. 1 and 2
- Ob. 1 and 2
- Klar. 1 and 2 in B
- Fag. 1 and 2
- 1.2 in F Hrn.
- 3.4 in F Hrn.
- Trp. 1.2 in F
- A.T. Pos.
- B. Pos.
- Btb.
- Pk.
- Triang.
- Beck u. Gr.Tr.

Symphony No. 4 in F minor, Op. 36, fourth movement mm. 199-205 (graph 4.20)

Introduction	Exposition		Development	Recapitulation	Coda
	Main theme/transition fusion	Sub theme			
<b>f minor</b> Fanfare m. 1-26	<b>f minor</b> m. 27-51 No clear cadential ending of the MT <u>Transition</u> m. 53-104 No clear beginning or ending of the transition	<b>A<sup>b</sup> minor</b> m. 115-155  <b>B major</b> m. 120. Replacement subordinate theme with the cellos.	m. 156-258	<b>d minor</b> Starts with the introduction - ST starts in <b>d minor</b> in m. 295, goes to <b>F major</b> in m. 312.	<b>f minor</b> m. 381

Symphony No. 4 in F minor, Op. 36, first movement (graph 4.21)

Sonata elements	Exposition		Recap	Development	Recap (con.)	Coda
Rondo elements	A	B	A'	C	B'	A'
	<b>F major</b> MT: <b>A:</b> mm. 1-9 <b>B:</b> mm. 10-29 Ends on a standing on the dominant <b>A':</b> mm. 30-37 V <u>Transition</u> mm. 38-59 IAC in <b>B<sup>b</sup> minor</b>	<b>B<sup>b</sup> minor</b> ST: mm. 60-91 <u>Retransition on</u> <b>D<sup>b</sup> major</b> mm. 92-118 developmental (uses B theme material)	<b>F major</b> MT <b>A:</b> mm. 119-126 Transition material mm. 127-148 Ends in IAC in <b>D minor</b>  <b>D minor</b> ST: mm. 149-172	mm. 173-198	mm. 199-222 Introduction of the 1 <sup>st</sup> movement  <u>Retransition</u> <b>F major</b> m. 223	<b>F major</b> MT: <b>A:</b> m. 249 expansion

Symphony No. 4 in F minor, Op. 36, fourth movement (graph 4.22)

Full list of pieces mentioned

Piece	Coda Characteristics
Symphony No. 2 in C minor, Op. 17, first movement	<ul style="list-style-type: none"> <li>• “Introduction-Coda Frame”</li> <li>• Internal ternary form in the introduction. Coda uses the “A” section</li> </ul>
Symphony No. 5 in E minor, Op. 64, first movement	<ul style="list-style-type: none"> <li>• Introduction theme is heard throughout the entire symphony</li> </ul>
Symphony No. 5 in E minor, Op. 64, second movement	<ul style="list-style-type: none"> <li>• Has two codas</li> <li>• First coda uses the introduction theme of the first movement</li> <li>• Second coda uses Theme 2</li> </ul>
Symphony No. 5 in E minor, Op. 64, third movement	<ul style="list-style-type: none"> <li>• Starts with a new theme and later repeats the introduction of the first movement</li> </ul>
Symphony No. 5 in E minor, Op. 64, fourth movement	<ul style="list-style-type: none"> <li>• Uses introduction of the fourth movement (also the introduction of the first movement)</li> </ul>
String Quartet No. 3 in E <sup>b</sup> minor, Op. 30, first movement	<ul style="list-style-type: none"> <li>• Two-part introduction</li> <li>• Coda contains the second introduction theme</li> </ul>
Symphony No. 4 in F minor, Op. 36, first movement	<ul style="list-style-type: none"> <li>• “Introduction-Coda Frame”</li> <li>• Introduction theme is also heard in the development section</li> </ul>
Symphony No. 4 in F minor, Op. 36, fourth movement	<ul style="list-style-type: none"> <li>• Sonata type 4-1. The introduction theme of the first movement is heard in the B’ section</li> </ul>
Symphony No. 1 in G minor, Op. 13, fourth movement	<ul style="list-style-type: none"> <li>• “Introduction-Coda Frame”</li> <li>• The coda is played in an “apotheosis” manner.</li> </ul>

graph (4.20)



## Conclusions

Sonata theory was originally designed to structure and analyze eighteenth-century sonata form, particular the works of Haydn, Mozart and Beethoven. As we moved on to the nineteenth century, each composer adjusted this form to fit their musical taste. Tchaikovsky re-structured the established norms by, for example, fusing sections together to create an internal-ternary structure within the sonata form. This hidden form is one of the main tendencies displayed in his works.

As mentioned in chapter 3, Tchaikovsky was fond of using augmented-sixth chords instead of the traditional PAC to conclude subordinate themes. Dvorak also used this method in his works, like in the String Quartet in F-major op. 96 “American.” The traditional key modulation was also heavily manipulated. Traditionally, a major piece would modulate to the dominant or the relative minor. Tchaikovsky, however, prefers to choose keys that have some sort of relation to each other and then transposes them up or down a fifth. The relationship of the keys becomes clear once you reach the recapitulation section, like seen in chapter 2.

Having previous knowledge of the key characteristics of Tchaikovsky’s use of sonata form is of great advantage not only in analyzing his music, but also the music of other composers of the nineteenth century. Having this prior knowledge can serve as a blueprint and “what to look for” when analyzing his contemporaries.

Tchaikovsky was a master of his craft. I believe it is a misconception to say that he struggled with sonata form as stated by certain musicologists.<sup>42</sup> Someone who struggled with it would not have been able to manipulate the structure in the manner that Tchaikovsky did. As

---

<sup>42</sup> David, Brown. *Tchaikovsky*. 1st American ed. New York: Norton, 1978, 424.

previously mentioned, during the nineteenth century, sonata-form was evolving. It took on different shapes, and each composer had their own way of using it, not just Tchaikovsky. This thesis provided a guide into understanding and analyzing sonata form in his works.

Since the sonata-form structure was changed in very particular and individual ways by Romantic composers, this thesis could serve as a platform for future work in form analysis. Further analysis and research into the works of Tchaikovsky that were not looked into for the purpose of this thesis would be beneficial for any future work. Furthermore, it would also be of great value to look into the works of other nineteenth-century composers in order to analyze how their manner of structuring the sonata-form style compares to that of Tchaikovsky.

## **Bibliography**

Brown, David. *Tchaikovsky*. 1st American ed. New York: Norton, 1978.

Burstein, Poundie. Unraveling Schenker's Concept of the Auxiliary Cadence, *Music Theory Spectrum*, Vol. 27, no. 2 (2005).

Cadwallander, Allen and Gagné, David. *Analysis of Tonal Music; A Schenkerian Approach*, (Oxford University Press, 2007).

Caplin, William. *Analyzing Classical Form: An Approach for the Classroom*: New York: Oxford University Press, 2013.

Caplin, William. "Beyond the Classical Cadence: Thematic Closure in Early Romantic Music." *Music Theory Spectrum*, 40, no. 1, 2018.

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

Hunt, Graham. "Diverging Subordinate Themes and Internal Transitions: Assessing Internal Modulations in Three-Key Expositions," *Music Analysis*, forthcoming.