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Beethoven Symphony No.5 in C minor, Op.67: Connecting tonality to tempo, character, and interpretation

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Abstract

Beethoven’s metronome markings aroused much controversy among musicologists and performing musicians. For Beethoven, tempo is a fundamental element of the music’s character. Beethoven included metronome markings in his music to communicate his ideas concerning tempi in a more specific manner. Ironically, his metronome markings are often ignored by many performers and conductors, as evidenced in the recordings and live performance reviews. There is a group of scholars and performers who tend to disregard Beethoven’s metronome markings, while another group believes they are sensible and workable.

This paper discusses the metronome markings and the Affective Key Characteristics in the music of Beethoven, focusing specifically on his Fifth Symphony, Op.67. Listeners and performers often have their impression of how a specific key feels, but such impressions are personal and may vary. The choice of the key by any given composer could be a vital hint of how the composer wanted the music to be interpreted in terms of character.

The first chapter focuses on the discussion of issues pertaining to Beethoven’s metronome markings, including commentary from Beethoven himself, as well as other musicians and music scholars. Chapter 2 discusses issues pertaining to Affective Key Characteristics, explaining the association of meaning and emotions in different Affective Keys, followed by a brief introduction of the concept of Affektenlehre, and unequal temperament tuning. Chapters 3 and 4 contain detailed discussion on the interpretation of Beethoven’s Fifth Symphony, with specific musical examples and frequent reference to the musical context and the Affective Key Characteristics descriptions.
In conclusion, this document demonstrates how the unique expressive properties of keys could be a significant asset for exploring various characters that are embedded within the music. By considering this, we could open up a number of interpretative possibilities that are not necessarily tied to metronome markings.
Chapter I

Issues Pertaining to Beethoven’s Metronome Markings

Introduction

Beethoven’s metronome markings and key choices have been a controversial topic since the past century. His metronome markings are considered to be unrealistic and impractical by some reputable musicians, who completely disregard his metronome markings,\(^1\) while another group believes they are sensible and workable.\(^2\)

The following quote illustrates the importance of tempo in Beethoven’s music, “Beethoven was aware of the importance of tempo in his music and considered it an integral element of its ‘character’—that category which he felt to be most essential to his music.”\(^3\) Ironically, pianist Wilhelm Kempff made a harsh remark on the metronome markings of the *Hammerklavier* Piano Sonata after his complete sonatas recording, “The erroneous (sic!) metronome markings can easily lead to this regal movement being robbed of its radiant majesty.”\(^4\) Conductor Benjamin Zander adds, “Beethoven’s tempo

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\(^1\) See, for example, Leopold Stokowski, “Symphony No.5” *Beethoven Symphony No.5 & Schubert Symphony No.8*, EMI Classics, recorded on September 1969, released on May 2003, DVD –the first movement is half the speed of Beethoven’s metronome marking; Wilhelm Furtwängler, *Symphony No.5 in C minor, Op.67*, Warner Classics, 1954, LP. –the first movement is 20 units slower than the indicated metronome marking; Carlos Kleiber, “Symphony No.5” *Symphonies 5 & 7*, Deutsche Grammophon, 1996. CD.—the first movement is 12-16 units slower than the indicated metronome marking.


\(^4\) Sture Forsén et al., “Was Something Wrong with Beethoven’s Metronome?,” *Notices of the AMS* 60, no. 9 (October 2013): 1149.
(of the Fifth Symphony) is astonishingly fast. What happened? When and why did people start performing it so slowly?"\textsuperscript{5}

Given that people argue about whether to obey Beethoven’s tempo indications, the question arises, is there some information we can use to more concretely make decisions other than personal preference or stylistic judgments based on studies of his output? Interestingly, this issue caught the attention of scholars outside of the musical field. A group of mathematicians and scientists wrote an article on Beethoven’s metronome and subsequently published it in the \textit{Notices of the American Mathematical Society} (AMS)\textsuperscript{6}. The article discusses the speculations and the context of Beethoven’s “broken metronome” with scientific calculations.\textsuperscript{7}

The main issue I will be discussing in this paper is the Affective Key Characteristics in Beethoven’s music. The choices of tonality by the composer could be a vital hint as to how the composer wanted the music to be interpreted in terms of character; each tonality has an associated character according to scholarship over the past several centuries. Rita Steblin, for example, states that “an interest in historical lists (Affective Key Characteristic) is evident in an 1834 \textit{Neue Zeitschrift für Musik} article, edited by Robert Schumann, which consists of Affective Key Characteristic descriptions by Johann Mattheson (1713) and E.T.A. Hoffmann (1814).”\textsuperscript{8}

This chapter continues with discussion pertaining to Beethoven’s metronome markings, including commentary from Beethoven himself, as well as other musicians and

\begin{itemize}
\item \textsuperscript{5} Benjamin Zander, “Discussion and Performances of Symphony No.5, Mvt.1” \textit{Beethoven: Symphonies No.5 & No.7}, CD, Telarc, 1999.
\item \textsuperscript{6} Forsén et al., 1149.
\item \textsuperscript{7} The conclusion of the article shows that “a damaged double pendulum metronome could indeed yield tempi consistent with Beethoven’s markings.” Forsén et al., 1152.
\item \textsuperscript{8} Rita Steblin, \textit{A History of Key Characteristic in the Eighteenth and Early Nineteenth Centuries} (Ann Arbor: UMI Research Press, 1981), 153.
\end{itemize}
music scholars. Chapter 2 will focus on issues pertaining to Affective Key Characteristics, which explains the association of meaning and emotions in different keys, a brief introduction on the concept of Affektenlehre, and on the unequal temperament tuning. In Chapters 3 and 4, I use descriptions of the Affective Key Characteristics to discuss the interpretation of Beethoven’s Fifth Symphony in detail, with reference to Beethoven’s metronome markings.

Because of the subjectivity in interpreting music, for the discussion in Chapters 3 and 4, I cite music reviews and interviews on the topic relating to tempi and character in the music. Also, in these two chapters, I rely on the Affective Key descriptive lists found in Paul Ellison’s recent publication, “The Key to Beethoven.”\(^9\) This publication contains a compilation of descriptions and individual perceptions of keys by philosophers, musicologists, composers, and musicians from the 15th to 19th centuries. Ellison categorizes all the descriptions into two or three praxes, or categories, for each key. Each praxis within the key has its own “general” descriptions. Table 1.1, for example, lists characteristics associated with the three praxes of C minor. Such categorizations will continue to be used throughout this document.

Table 1.1. Paul Ellison’s Three Praxes of C Minor Key\(^{10}\)

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Lament, Pathos, Funeral-like</td>
</tr>
<tr>
<td>Second</td>
<td>Tender, Plaintive, Longing</td>
</tr>
<tr>
<td>Third</td>
<td>Tragic, Forceful, Dramatic, Stormy</td>
</tr>
</tbody>
</table>

\(^{10}\) Ibid., 56–63.
This chapter continues to discuss Beethoven’s metronome markings, from a compositional standpoint and from the performers’ standpoint: Why might Beethoven have included metronome markings in the first place? What happened after Beethoven added the metronome markings? What is the performers’ take on Beethoven’s metronome markings? What issues do the metronome markings create? What is the relationship between tempo and character?

Beethoven was one of the earliest composers to include specific metronome markings in his music. As a revolutionary composer at that time, he played an important role in developing this musical norm in Viennese music culture. The rise of the idea of “individualism” in the early 19th century is evidenced by Beethoven’s practice of composing “written-out cadenzas” for his piano concerti. Beethoven included a written-out cadenza in his Fifth Piano Concerto, Op.73, where normally the cadenza is expected to be improvised by the performer.11 “Beethoven wanted to assert his own individuality in his compositions, not in an unconscious manner, as with one’s handwriting, but as a deliberate gesture of personal identification.”12 Similarly, Beethoven went a step further in exerting a degree of control over the music by adding metronome markings in his music, especially to the more prominent works such as the nine symphonies.

“Tempo” was one of Beethoven’s primary concerns in terms of how one should perform his music. This statement is supported in a famous piece of correspondence to a Viennese musician, Ignaz von Mosel, in 1817: “We cannot give those up. Indeed, the tempo is more like the body, but these [indications of character] certainly refer to the

spirit of the composition.”

Beethoven wrote this letter following his correspondence with von Mosel expressing their mutual view concerning the topic of tempo, which Beethoven mentioned in the same letter as quoted above,

I am pleased to find that you share my view of tempo terms that stem from the primitive origins of music. What can be more absurd than for instance Allegro, which means cheerful, and how we are often removed from that understanding of tempo, so that the piece [of music] often expresses the opposite from the indication.

Beethoven went further to describe how performers often misunderstood his tempo indications (tempi ordinarii, or—Italian terminologies), and justify his need to include metronome markings in his works.

On the one hand, metronome markings might be thought of as definitive performance directions that proscribe how fast the music should be played. However, Beethoven’s metronome markings are often taken as relative markings and, therefore, often vary greatly. That is, the tempo of a given piece often varies drastically depending on the performer. Since the early 18th century, performers often ignored Beethoven’s metronome markings, which were even omitted in most music editions of his music.

There have been numerous scholarly discussions on the topic of Beethoven’s metronome markings and his “broken” metronome.”

Sir Roger Norrington indicates that, “Almost every conductor ignored these speeds and performed the music much more slowly and ‘grandly.’”

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15 “In an April 1819 letter to his friend and copyist Ferdinand Ries at the Fitzwilliam Museum in Cambridge, Beethoven states that he cannot yet send Ries the tempi for his sonata Op.106 “because his metronome is broken.” E. Anderson, Music & Letters 34, no. 3 (1953): 212-223. Cited in Forsén et al.
16 Norrington, “In Tune with the Time.”
Forsen notes that,

The pianist and musicologist Peter Stadlen (1910-1996), who devoted many years to studies of Beethoven’s markings, regarded sixty-six out of a total of 135 important markings as absurdly fast and thus possibly wrong. Indeed, many if not most of Beethoven’s markings have been ignored by latter-day conductors and recording artists.\textsuperscript{17}

Moreover, Young has said,

Disregard for the metronome markings, generally too fast for the romantics, stems for the middle of the nineteenth century. Richard Wagner led this movement, by seeking to find deeper expression in Beethoven’s music by slowing it down to match his own style.\textsuperscript{18}

As the performers above suggest, Beethoven’s metronome markings are often disregarded. Why is this?

The idea of “pitch” varied within different towns and regions in early 18\textsuperscript{th}-century Europe. Similarly, the idea of tempo and the understanding of \textit{tempi ordinarii} varied from region to region; it was a municipal concept, and it was part of their local municipal idiom.\textsuperscript{19} For instance, the Viennese “Presto” is a lot quicker than the Italian. Mozart discussed this difference in a well-known account he wrote to his father, Leopold, about the Italians playing the “Presto” as if they were playing an “Allegro,” which was significantly slower than the “Presto” he intended.\textsuperscript{20}

Unlike Haydn and Mozart, Beethoven did not travel to rehearse with the performers before the performance of his works. Among Beethoven’s main concerns was

\textsuperscript{17} Forsén et al., 1146.
\textsuperscript{20} Ibid.
the tempo in which his works would be performed.\textsuperscript{21} Because of the different ideas of
tempo in various municipalities and his inability to control the performance situation on-
site, Beethoven thought there was a need to include metronome markings to his music. In
his letter to the publisher Schott dated December 18, 1826, Beethoven stated,

In our century, such markings (metronome markings) are certainly necessary;
moreover, I have received letters from Berlin informing me that the first
performance of the [Ninth] Symphony met with enthusiastic applause, which I
ascribe largely to the metronome markings. We can hardly have any \textit{tempi ordinarii} any longer, since one must be guided by the ideas of unfettered genius.\textsuperscript{22}

The \textit{tempi ordinarii} in the letter refers to the regular Italian tempo indication (\textit{Allegro},
\textit{Andante}, \textit{Allegretto}, etc.). Beethoven sensed there was a need for him to include
metronome markings because the tempo is such an essential element that it could dictate
the character and “spirit” of the piece, and according to this letter, it was the main reason
for the successful concert in Berlin.

Beethoven’s primary intention for including metronome markings was to provide
more precise performance directions for the performer. According to Rudolf Kolisch,

He indicated the same tempo for different pieces of the same character. This
setting up of typical categories of tempo, corresponding to categories of
expression, does away with any suspicion that his metronome indications could be
no more than casual expressions of subjective ideas of interpretation. No, the
‘right’ tempo of a piece is born with the music itself.\textsuperscript{23}

The key here is that Beethoven was consistent and that he was making demands rather
than giving notes or suggestions. Ironically, by including metronome markings, he
created problems for the interpretation of his music.

\textsuperscript{21} Kolisch and Mendel, “Tempo and Character in Beethoven’s Music,” \textit{The Musical Quarterly}, Vol.29,
\textsuperscript{22} Ibid., 95.
\textsuperscript{23} Kolisch and Mendel, “Tempo and Character in Beethoven’s Music,” 97.
Beethoven sent his metronome markings to the publisher to republish his first eight symphonies soon after the invention of the metronome by his friend, Johann Maelzel. Out of the thirty-two piano sonatas, he only re-published one with metronome markings, the “Hammerklavier” sonata, Op.106. Ironically, it is in this sonata that tempo has been a huge issue for more than a century, and it is still an ongoing struggle to play this piece “up to speed.” Artur Schnabel’s 1935 recording of the “Hammerklavier” sonata, which is still considered an authoritative recording, draws the listener’s attention to this concern. Even at his extreme tempo, Schnabel’s performance is still 20 beats per minute slower than Beethoven’s original metronome marking. Beethoven’s metronome markings are significantly faster (with a few exceptions) than most musicians’ interpretations of the tempo.

At the beginning of the 20th century, many scholars and musicians started to re-examine Beethoven’s metronome marking and subsequently published articles that discuss the topic itself.

Rudolf Kolisch (1896-1978) of Kolisch Quartet fame and a pupil of Schöenberg became one of their [the metronome markings’] strongest proponents, and Boulez’s teacher René Leibowitz (1913-1972) became the first conductor to perform Beethoven’s symphonies according to his metronome markings. In 1942 Kolisch gave the talk “Tempo and Character in Beethoven’s music” in New York, which was subsequently published the same year, and it was to play an important part in the debate on the tempi of Beethoven’s music that seems to have been ongoing ever since.24

Kolisch was among the earliest scholars who examined tempo in Beethoven’s music a century after the inclusion of the metronome marking by the composer.25

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felt he needed to address the issue after performing the string quartets. He subsequently published an extensive article to discuss Beethoven’s tempo and character issues. Charles Rosen, who builds on Kolisch’s work, also comments on the issue of Beethoven’s metronome markings: “Beethoven evidently thought there was a right tempo for each of his works, although it is not entirely clear that he himself always knew or had correctly decided on what that tempo should be.”

On the other hand, many performers do try to be faithful to the composer’s markings. As Norrington stated, “You should be the advocate of the composer, not his master. You do not need to change notes or tempo—the composer is all.” He added a quote from Arnold Schoenberg in the same interview, “if we do not understand why the slow movement of Beethoven’s ninth symphony is given a metronome mark of 60 (when most conductors take it to about half that speed), then we do not know the music well enough yet.” A further quote indicates the connection between tempo and character; according to Kolisch, “A wrong tempo would change the character, and for each character, there is an appropriate tempo.” A problem arises when the composer has a specific tempo in mind, but it does not work well physically.

The Italian terminology that musicians commonly use could tell us something more than tempo and character, although, as Rosen mentions, “it gradually developed a secondary association to mean a movement of a certain weight and magnitude. For

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26 Rosen, “Tempo,” 44.
27 Norrington, “In Tune with the Time.”
28 Ibid.
instance, Adagio did not simply mean slow, but generally implied a work of earnest and meditative character.”

The relationship between tempo and character could be related to the association between the Italian terminology and the tonality of the piece, which both inform the character of the piece to some extent. For Kolisch, this is another piece of evidence of Beethoven’s awareness of the close relationship between the tempo and character:

“Beethoven was conscious of tempo as an essential part of his language, coordinated with that mysterious category which he himself termed ‘character.”

This is a case where the Affective Key Characteristics table (Table 1.1) presented in the Introduction can serve as a useful tool in making interpretive decisions.

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31 Kolisch and Mendel, “Tempo and Character in Beethoven’s Music.”, p.176
Chapter II

Issues Pertaining to Affective Key Characteristics

The tonality that a composer chooses for any given piece is crucial in determining the character of the piece or section of the piece. Listeners and performers often have an impression of how a specific key feels, but such impressions are personal and may vary. As Werner Lüthy commented on Mozart’s vocal and instrumental repertoire:

Even though one might personally hold a negative view of key characteristics, one cannot get around the fact that each great composer preferred to associate similar emotional meanings with the same or related keys.¹

The association of meaning and emotions with key characteristics has been a controversial matter since the early 16th century. It sounds almost superstitious when someone associates a key with emotion. As Sir Donald Tovey stated, “the first thing the general reader needs to know about tonality is that the names of the keys do not represent important aesthetic facts.”² On the contrary, Albert Einstein infers the opposite: “Every sensitive musician has no doubt observed that in the works of these men particular types of melody and figuration are associated with particular keys.”³

Affektenlehre—the Doctrine or Theory of the Affections was an influential movement in the 17th-18th century. Briefly, Affektenlehre “classifies musical effects used to express particular emotions, such as sorrow, joy, languor, passion, etc., and thus inevitably tends to freeze them into stereotyped forms.”⁴ The methodology in the

Doctrine of the Affections is utterly technical and systematic. Baroque affections were expressed as various “figures,” with each accountable for the examination of each musical aspect. In other words, each musical figure correlates to an Affective unit. The “figures” include the contour of pitches (melody), types of rhythms, modulations, harmonic progressions, and tonality in the music; the Affective unit includes a series of expressions such as love, sorrow, and joy. For instance, Johann Mattheson relates wider intervals to joyfulness and narrower intervals to sadness. Many early writers address the influence of rhetorical ideas in musical thought, especially in the music of the 17th century. These authors often work under their assumption that for “Baroque composers […] music’s primary expressive goal [was] the achieving of a musical unity based on a rationalized concept of emotions called the Affections.”

Mattheson—an 18th-century composer, music theorist, and philosopher—is one of the pioneers of Affektenlehre. He lived through the Age of Enlightenment, looking for meaning in music through the lens of Rationalism, which encouraged many to consider how to judge music as an art. Mattheson, for example, believed that “nothing can move (us) that cannot be understood.”

Mattheson’s descriptions of key characteristics are among the most widely cited and often examined early contributions to the scholarship concerning the doctrine of

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6 Buelow, *New Mattheson Studies*, 396.
8 The authors are Burmeister, Lippius, Mersenne, Kircher, Heinichen, Walther, Werckmeister, Scheibe, and Johann Mattheson. George J. Buelow, *New Mattheson Studies*, p. 396.
9 Buelow, *New Mattheson Studies*, 396.
10 Ibid., 393–94.
affections. Table 2.1 shows the translated version of Mattheson’s (1713) basic descriptions from Das neu-eröffnete Orchestre.¹¹

<table>
<thead>
<tr>
<th>Key</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Rude, bold, also tender</td>
</tr>
<tr>
<td>c</td>
<td>Sweet, sad</td>
</tr>
<tr>
<td>D</td>
<td>Sharp, headstrong, for warlike and merry things</td>
</tr>
<tr>
<td>d</td>
<td>Devout, tranquil also grand; devotion in church music, amusing, flowing</td>
</tr>
<tr>
<td>Eb</td>
<td>Pathos, serious, sad, hostile to all sensuality</td>
</tr>
<tr>
<td>E</td>
<td>Despair, fatal sadness, hopelessness of extreme love, piercing, painful</td>
</tr>
<tr>
<td>e</td>
<td>Pensive, profound, grieved, sad</td>
</tr>
<tr>
<td>F</td>
<td>Most beautiful sentiments, generosity, constancy, love</td>
</tr>
<tr>
<td>f</td>
<td>Tender, calm, profound, weighty, a fatal mental anxiety, exceedingly moving</td>
</tr>
<tr>
<td>f#</td>
<td>Languishing, amorous, unrestrained, strange, misanthropic</td>
</tr>
<tr>
<td>G</td>
<td>Suggestive and rhetorical, for serious as well as gay things</td>
</tr>
<tr>
<td>g</td>
<td>Almost the most beautiful, graceful, agreeable, tender, yearning, diverting, for moderate complaints, tempered joyfulness</td>
</tr>
<tr>
<td>A</td>
<td>Affecting and brilliant, inclined to complaining, sad passions</td>
</tr>
<tr>
<td>a</td>
<td>Plaintive, decorous, resigned, inviting sleep</td>
</tr>
<tr>
<td>Bb</td>
<td>Diverting, magnificent, but also dainty</td>
</tr>
<tr>
<td>B</td>
<td>Offensive, harsh, unpleasant, desperate character</td>
</tr>
<tr>
<td>b</td>
<td>Bizarre, morose, melancholic</td>
</tr>
</tbody>
</table>

Mattheson’s descriptions of key characteristics, as shown in Table 2.1, results from the unequal temperament tunings that were used in the 17th and 18th centuries. One of the most challenging technical issues of 17th- and 18th-century keyboard instruments is their tuning system. Fixed-pitch instruments like the keyboard do not have the flexibility to tune to pure intervals, as in just intonation. The one way to tune the keyboard in such a

¹² Ibid.
way that most keys will be “relatively” in tune is by tempering the intervals within each key. Each temperament has a unique character. For instance, Pythagorean temperament is tuned on the ratio 3:2 based on pure fifths. Because of the obsession of obtaining the pure fifth intervals in this temperament, some other intervals have to be compromised (tempered) in order to make the key relatively usable. As a result of all these different tuning systems, there was no standard tuning practice at that time for keyboard instruments. Since each temperament involved different interval ratios, each key had its own character that related to a “figure” in Mattheson’s Doctrine of Affections.

One of the best-known examples of early “tempered tuning” in music is the *Well-Tempered Clavier* by J.S. Bach. Many people confuse the terms “well-tempered” and “equal-tempered,” however, the two are distinct types of tuning systems. In the equal temperament system, all the half steps are of equal distance, in a way where all the intervals are tempered except for the octaves. The “Well-Tempered” temperament consists of both pure and tempered fifths, and that is the tuning system that Bach had in mind for the *Well-Tempered Clavier*.13 As Bradley Lehman explains: “His [Bach’s] explicit adjustments— the uncommonly high placement of pure and half-tempered 5ths—make all keys pleasing and usable in musical-practice: yielding a ‘well-tuned keyboard’ on which everything works fine.”14

A composer working within the unequal tuning system may choose a key based either on their belief that it expresses a particular emotional quality or based on the conventionally understood affective characteristic of the key. Undoubtedly, other issues

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could warrant consideration, such as the physical layout of the keyboard and the limited range of early keyboard instruments.

A student of J.S. Bach, Johann Kirnberger made a considerable contribution to the development of unequal temperament in the 18th century. His famous tuning system, the Kirnberger III tuning, is one of the most commonly used temperaments because of the ease with which an instrument can be tuned in it and for the pleasing intervallic sonorities it provides. According to Kirnberger,

> Each key has its own special degrees (Sayten) and intervals through which it receives its own character, its own impression, both in the harmony and melody, and through which it is distinguished from all the others.\(^\text{15}\)

In his chart of key classes, Kirnberger categorized the different keys using basic descriptive terms: “Purest,” “soft,” “softer,” “hard,” “harder,” etc. The labels that he used for these categories correlate with “stable,” “darker,” and “brighter,” etc. or “static,” “dull,” and “vibrant,” etc.

![Figure 2.1. Kirnberger’s Chart of Key Classes.](image)

How is affect related to tuning? Because of the way that intervals are distributed differently within each key, one key sounds different from the next. As opposed to the

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\(^\text{16}\) Ibid., 97.
modern equal temperament where all the major keys are analogous to each other, the
unique sound that results from the unequal interval spacing creates a particular emotional
affect. An example of how this is applied appears in two of Bach’s Preludes from the
*Well-Tempered Clavier*: The C major and C-sharp major preludes from Book 1
(Examples 2.1 and 2.2). The C major prelude’s comforting and tranquil character is
suited to the particular distribution of pure thirds and fifths from the tonic within the scale
(Example 2.1).

![Example 2.1. J.S. Bach, Prelude in C Major, *Well-Tempered Clavier Book 1.*](image)

By contrast, C-sharp major was not a commonly used key at that time, especially
in unequal temperament systems. The main reason is that C-sharp major was not a
pleasant-sounding key; the tonic-median and tonic-dominant intervals were tempered in
a way that sounded “out of tune.” Instead of labeling the key as a “defect,” Bach utilized
the key in the C-sharp major prelude (Example 2.2) to its advantage by using active
sixteenth-note figurations for the entire piece. In addition to the relentless and restless
character resulting from the sixteenth-note figuration, the acoustic property of the C-
sharp major key produces a vibrant character.

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17 Referring to Mattheson’s Key Characteristic Table (2.1.), C-sharp major does not exist on the table.
Example 2.2. J.S. Bach, Prelude in C-sharp Major, *WTC Book 1*.

In today’s equal-tempered world, often the only primary source of musical information available to a performer includes score indications such as tempo, dynamic markings, pitches, durations, phrase markings, time signature, etc. Indications of the character and emotion for each phrase are not well described. One of the ways in which performers can better understand the emotional content of a work is to interpret it through the lens of its key association.

Another composer whose choice of key is of great importance is Beethoven. Beethoven was highly aware and interested in Mattheson’s theoretical work. The character of Beethoven’s Fifth Symphony is often compared to his other C minor pieces, such as his piano sonatas Op.10 No. 1, Op.13, and Op.111 because they exhibit similar emotional qualities. According to Paul Bekker, for instance, there is a “C minor problem,” and “a search for the first great goal of life’s struggle.” While we might be

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21 Ibid.
able to sense a link between these C minor works, describing a specific emotional quality is challenging because there are multiple affective characters associated with each key.

As I showed in Chapter I, Paul Ellison categorizes the emotions of C minor into three affective praxes. These three praxes were derived from the writings written by musicians and philosophers in the 17th through 19th centuries. Critically, Ellison cautions scholars not to dismiss the importance of key associations based on their multiplicity of pairings:

The apparent conflict in meaning between definitions of keys by different authors has been the source of tremendous skepticism during the past two centuries. Critics who questioned the existence or relevance of key characteristics highlighted the contradictions between the descriptions of various writers. It is thus important to observe at the outset that not all keys have only one meaning.22

In the following examples, I focus on instances that feature the same key and similar affective characteristics as described by Ellison, analyzing Beethoven’s Fifth Symphony to determine what musical features contribute to the character and interpretation of the work.

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22 Ellison, The Key to Beethoven, 44.
Chapter III

Beethoven’s Fifth Symphony, Op.67, Musical Examples: Large Scale Applications

I now turn toward Beethoven’s Fifth Symphony to demonstrate how one might use key character analysis to interpret a work. The symphony has historically been performed at many different tempi. A comparison of two notable interpretations of the symphony, for example, demonstrates just how different tempo in performances can be. The first recording is by Sir John Eliot Gardiner (2011), and the second recording is by Leopold Stokowski (1969). Gardiner’s tempo is very close to Beethoven’s metronome markings and is considered to be on the quicker side of average. Every second of the recording sounds full of passion and excitement; however, at times, it sounds frantic.

On the other hand, Stokowski’s recording is on the other extreme of the spectrum—quite slow. His tempo choice gives the piece a deliberate and densely emotional character. Both recordings work in their own way; however, there is something worth discussing if one understands the piece through a different perspective:

It will surely come as a surprise to most listeners that works as familiar as Beethoven’s Fifth and Seventh Symphonies have rarely received performances that realize Beethoven’s stated wishes as to how the music should be played, and that this tradition of ignoring the composer’s intentions began in Beethoven’s own time!¹

As Benjamin Zander explains, Beethoven’s metronome markings have been ignored in many performances. Why? Since the Fifth Symphony has no extensive performance notes by the composer, nor do we have a recording of the composer conducting the work, the conductor is forced to make decisions to the best of their ability based on the information in the score. This is especially challenging if a conductor believes

Beethoven’s metronome markings for the Fifth Symphony are not realistic. Matthew Guerrieri comments on performances, for example, that attempt to be true to Beethoven’s markings:

Those rare performances (Toscanini, Gardiner) that adopt Beethoven’s metronome marking can still sound almost cartoonishly fast. Such a reaction demonstrates either a) the extent to which two centuries of overdoses of injected Romantic gravitas have distorted Beethoven’s original conception, or, b) confirming Beethoven’s metronome markings can quickly turn in to a game of point/counterpoint.²

The written metronome marking creates several issues for the performer, the most problematic of which has to do with the physical limitations of the musical instruments: it is often not possible to play as fast as Beethoven would seem to require. The second issue is the acoustic effect of the larger, modern performance venues. In terms of clarity of the music, the sound takes more time to travel and fades before the next note is being played. In other words, the tempo of the piece should be slightly slower to create a clearer sound. The acoustics of the hall is a highly subjective topic when it comes to performances; hence, this consideration of the acoustical aspect will be omitted in this discussion. Here is a real-world performance experience as described by Stephen Hough in his latest book:

However, I did play once in Bari, with the permission of the bishop, over the tomb of St Nicholas . . . Santa Claus himself. It was the Liszt B minor Sonata at a crushingly slow tempo owning to the extreme and resonant echo of the ancient stone. It’s a strange experience to hear bar 35 still ringing in the air when your fingers are already playing bar 42.³

Stephen Hough chose a slower tempo because of the acoustic of the hall.

Although it is possible to perform the piece using the indicated metronome marking, the question is: Is it necessary to take the metronome marking literally? There

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are many ways to hear the music and even more ways to interpret it. The first movement of the symphony is marked 108 half notes per minute, but most recordings of orchestral renditions and piano transcriptions perform it at least ten units slower.⁴

If a conductor does not wish to pursue the tempo Beethoven chose, what other aspects of the piece might inform their decision with respect to tempo? I demonstrate how the expressive properties of keys can be used to make such interpretive decisions. I rely on the description of keys outlined by Paul Ellison. As mentioned in an earlier chapter, Ellison’s publication contains a compilation of descriptions and individual perceptions of the key by philosophers, musicologists, composers, and musicians from the 15th to 19th centuries.

Musical Examples (Applications)

The first movement of the symphony is in C minor. Ellison categorized C minor in three categories. Table 3.1 describes the first praxis as lament, pathos, and funeral-like; the second praxis as tender, plaintive, and longing; and the third praxis as tragic, forceful, dramatic, and stormy.

Musical elements in the opening of the first movement (Example 3.1) such as the instrumentation (tutti strings and clarinet), extreme dynamic markings (ff to p), and the fermatas in mm. 2 and 5, suggest the characteristics listed in the third praxis: tragic,

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⁴ As I was learning Liszt’s piano transcription of Beethoven’s symphony, I “lived” with the indicated metronome marking for three weeks as part of my research, and it was not a happy place to live. During this experimental phase of the research, I practiced the transcription of the piece with the indicated metronome markings. I faced a few difficulties: 1) maintaining the tempo throughout the piece because there are several passages that are impossible to play on the piano, and it does not quite work for the orchestra either (such as the trio in the 3rd movement for the lower strings section), 2) according to the audiences, the performance sounded hectic and frantic, with a compromised musical performance, such as the lack of cantabile melody, the inability to broaden thicker tutti chords, and the failure to acknowledge countermelody entrances (e.g., 4th movement bars 101, 104).
Table 3.1. Ellison’s Affective Key Characteristic Descriptions for C Minor

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Lament, Pathos, Funeral-like</td>
</tr>
<tr>
<td>Second</td>
<td>Tender, Plaintive, Longing</td>
</tr>
<tr>
<td>Third</td>
<td>Tragic, Forceful, Dramatic, Stormy</td>
</tr>
</tbody>
</table>

forceful, dramatic, and stormy. Beethoven’s tempo marking is 108 half-notes per minute. The tempo for this movement should allow more space for the character to develop.

Guerrieri agrees: “Conductors and performers have been ignoring those markings (metronome markings). Anecdotal evidence hints that nineteenth-century performances customarily eased Beethoven’s 108 marking to something a bit more manageable.”

Regarding early twentieth-century recordings, Guerrieri finds the following:

With the advent of the gramophone, parameters of performance practice—at least those inherited from late Romanticism—could be pinned down exactly. Conductor Arthur Nikisch and the Berlin Philharmonic made a complete recording of the Fifth in 1913; Nikisch’s reading of the first movement coalesces around 88, albeit through a heightened haze of flexible speed. Weingartner lived long enough to record the Fifth (symphony) four times in the 1920s and 1930s, by which time his tempo had slowed from his earlier recommendation (his 1933 recording with the London Philharmonic settles in at around 92, for instance). In 1998, Gunther Schuller tabulated tempi for sixty-six different recordings of the Fifth; the average speed was just under 92 bpm.

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5 Guerrieri, The First Four Notes, 25.
6 Ibid., 26.
Based on the discussion above, Carlos Kleiber’s 1997 recording of the Fifth Symphony is on the faster side as compared to some recordings of the same period. The tempo is about 92 to 96 half-notes per minute, which is 12 to 16 units slower than the indicated metronome marking. As compared to the original metronome marking, this interpretation (Kleiber’s) does not take away from the excitement of the piece, and yet it successfully induces a tragic and dramatic character to the movement in a more controlled manner. Beethoven’s metronome marking here induces his character choices, as we could hear in Gardiner’s recording (2011), which effectively conveys the dramatic, exciting, and tragic character of the C minor key (Table 3.1, third praxis).

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7 See, for example, Harnoncourt (1991), Kurt Masur (1993), and Michael Tilson Thomas (2011).
The second movement is in A-flat major. It must not be a coincidence that there are often similarities between any two given pieces in the same key by Beethoven. Before we dwell on the Second movement of the Fifth Symphony, let us take a moment to compare the first movement of the Piano Sonata in A-flat major, Op.26 (Example 3.2) to the second movement of the Fifth Symphony (Example 3.3). They are both in variation form, in the same key, and in triple meter, and both pieces are marked Andante and have a warm singing theme at the beginning. Interestingly, the singing quality in both of these pieces fits Ellison’s key characteristics table.

According to Christoph Eschenbach, “The second movement (Andante con moto) is a rather unusual variation form in which two themes alternate, the first sweet and lyrical, the second more forceful.” There are two praxes for A-flat major, according to Ellison’s key description table. The second praxis, heavenly and cantabile, fits the first theme of the second movement better. The movement begins with the introduction of the theme by two of the warmest sounding strings instruments doubling each other with a dolce marking, which suggests an expressive song-like character.

Table 3.2. Ellison’s Affective Key Characteristic Descriptions for A-flat Major

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>A key of grave, solemn, gloom, dark</td>
</tr>
<tr>
<td>Second</td>
<td>Heavenly, cantabile</td>
</tr>
</tbody>
</table>

As mentioned earlier, Beethoven republished his music with added metronome markings for all the symphonies and one piano sonata, the Hammerklavier Sonata. There is no metronome marking for the Ab major sonata, Op.26 (Example 3.2); ironically,

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while the sonata has been performed in slightly different tempi, the tempo of the sonata has not been a controversial issue to most performers as compared to the works with metronome markings.\footnote{On a side note, Arthur Schnabel gave the sonata a metronome marking of 63-66 eighth-note per minute, which is significantly slower than Beethoven’s 92 eighth-note per minute for the same 3/8 time signature. Arthur Schnabel, “Piano Sonata No.12, Op.26”, Milan: Curci, 1949, http://petruccilibrary.ca/files/imglnks/caimg/a/a1/IMSLP502052-PMLP1454-Beethoven_(ed._Schnabel)_26.pdf (accessed May 10, 2019).}

**SONATA N. 12**

(Dedicata al Principe Carlo von Lichnowsky)

Op. 26

Example 3.2. Opening of Piano Sonata Op.26 (First Movement).

Example 3.3. Opening of the Second Movement of the Fifth Symphony.
As is the case for most variations, note values decrease as the piece proceeds. The tempo for the whole Variation does not have to be in one strict tempo. The metronome marking ($\text{\texttt{J}} = 92$) of the second movement of the Fifth Symphony seems appropriate for the introduction of the theme. However, as the piece unfolds, the note values get shorter in the later variations, and the tempo in these sections begins to feel rushed. If we combine both the Affective Key description and the metronome marking in this section, the viola solo in bars 98-105 should be given more time play the thirty-second notes melody clearer (as indicated in the music, \textit{p dolce}) in order to create a sense of fluidity, and at the same time giving a touch of lyricism to this section.

Example 3.4. Second Movement of the Fifth Symphony.
The third movement of the symphony is a Scherzo in C minor. Although the Scherzo section is in the same key, C minor, there is a drastic character shift within the section. The first eighteen bars of the third movement of the Fifth Symphony (Example 3.5) begins with a tender and longing dialogic sound, as described in the second praxis of Paul Ellison’s Key Characteristics table (Table 3.3). Starting in measure 19, the horn entrance interrupts the tenderness of the preceding section (mm. 1-18).

Table 3.3. Ellison’s Affective Key Characteristic Descriptions for C Minor

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Lament, Pathos, Funeral-like</td>
</tr>
<tr>
<td>Second</td>
<td>Tender, Plaintive, Longing</td>
</tr>
<tr>
<td>Third</td>
<td>Tragic, Forceful, Dramatic, Stormy</td>
</tr>
</tbody>
</table>

The metronome marking is 96 dotted half-notes per minute. The movement sounds too rushed if one takes the metronome marking literally. For instance, the first eighteen bars of the movement (Example 3.5) require a slower tempo in order to more effectively portray the dialogic relation between the lower and higher string sections. In bars 1-18, the lush harmonization of the upper string sections answer the homophonic arpeggiated lower strings melody. This creates a harmonious dialogical moment to the opening of the third movement.

Example 3.5. Opening of the Third Movement of the Fifth Symphony.
The first character shift happens in the following measure, starting in bar 19 (Example 3.5), where the French horn entrance interrupts the tenderness and plaintiveness of the preceding measures. This section starting in bar 19 consists of characters from the first and the third praxis, it is funeral-like, forceful, and dramatic. According to Leonard Ratner’s theory of musical topics, “it (French horn) is symbolic either of the military or of the hunt.”\(^{10}\) The instrumentation and the tonality give a significant contribution to the character of the music in this section.

The French horn presents the four-note motive starting in bar 19 (Example 3.6), and it signifies the military march, as described in Ratner’s quote above. The assertive French horn entrance serves a striking contrast to the previous section, in terms of timbre, character, and context. Together with the denser harmony in this section, the French horn motive portrays the military connection associated with the key. This motive is famously known as the “thematic transformation” motive, and many music lovers and musicologists have observed its relation to the opening four-note gesture in the first movement of the symphony.\(^{11}\) It would certainly seem this section again should be played slightly slower than the indicated metronome marking because of the reasons mentioned above.


Carlos Kleiber maintains the same tempo for both the Scherzo and Trio sections, which means that his tempo is about 14 units slower than Beethoven’s metronome marking. On the other hand, some recordings begin with Beethoven’s tempo and slow down at the trio. Benjamin Zander and John Eliot Gardiner’s recordings are the two examples that prove this point. Zander, for instance, begins faster than Beethoven’s tempo at 106 dotted half-notes per minute, then slows to 96 dotted half-notes per minute (which is Beethoven’s actual metronome marking for the third movement) at the trio. Zander may have slowed in the trio to accommodate the shorter, and thus faster, durations in the trio. The lower string section in the Trio section needs more time to better project the theme because of the physical nature of the strings.¹² Gardiner’s

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¹² As I mentioned earlier in this chapter, I compared many orchestral and piano transcription recordings and later applied Beethoven’s metronome markings to all the movements during that “experimental” research stage of practical application for this paper. The trio section (Figure 3.7) is one of the most obvious section that does not work well with Beethoven’s metronome markings.
recording begins with Beethoven’s tempo and slows in the trio to 86-92 dotted half-notes per minute.

Beethoven did not include a new metronome marking for the Trio section, although customarily the Trio section is usually slightly slower than the Scherzo section in most historical performances of dance-trio-dance movements. Generalizing about the relationship between Scherzi and Trios in Beethoven’s works, J. Wharton Sharp indicates that “Trios following the Scherzi are generally taken at a slightly slower ‘tempo’ for the sake of contrast, and to give relief after the breathless ‘hurry and skurry’ of the Scherzo.” Applying Beethoven’s metronome marking from the Scherzo to the Trio (96 dotted half-note per minute), creates a problem from the Trio’s outset (mm. 140-160).

Here, the lower strings introduce a new motive in octaves (mm. 141-146) that is imitated by other instruments (Example 3.7). Using the Scherzo’s tempo here would compromise the excitement of this section because of the instrumentalists’ difficulty with articulating each note of the motive deliberately, especially after m. 146 where the viola and bassoon (and subsequently second violin) enter.

The trio of the third movement contrasts with the Scherzo in many ways, such as instrumentation, texture, structure, voicing, and most importantly, the character. The Scherzo is in C minor, and the trio is in its parallel major. Apart from the second theme of the first movement, the trio’s move to C major marks a rare appearance of that key before the celebratory fourth movement. Thus, we might argue that the trio section foreshadows the celebratory and rejoicing character of the fourth movement. As shown in Example

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the rhythmic drive of this trio section is built on an energetic upward-moving motive, with the excitement intensified by the section’s contrapuntal texture.

Example 3.7. Trio Section of the Third Movement.

According to all these musical characteristics above, Ellison’s description of C major’s first praxis (Table 3.4) as rejoicing, light, and free fits the character of the trio section. The fast-moving eighth-notes in the fugal subject quickly build the energy of the piece into a frenzied state. The rejoicing character here is different from that of the fourth movement, mainly because of textural differences. The fourth movement, which is discussed presently, contains thick chords, whereas the trio of the third movement comprises moving figurations.

The fourth movement is in sonata form, and it represents a celebration. According to Ellison’s key characteristic descriptions, the first praxis of C major represents triumph and celebration (Table 3.4).
Table 3.4. Ellison’s Affective Key Characteristic Descriptions for C Major

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Triumph, strength, rejoicing, celebration, freedom, light</td>
</tr>
<tr>
<td>Second</td>
<td>Purity, innocence, neutrality, charming</td>
</tr>
</tbody>
</table>

Here (the fourth movement) is in fact one of the most important pieces of evidence in the whole controversy of Beethoven’s tempi. Since this is one tempo that the conductors has generally found it to be too slow. Thus, providing a good argument against the proposition that his (Beethoven) marks are all too fast.\(^\text{14}\)

Beethoven’s metronome marking is 84 half-notes per minute in a 4/4 meter. The tempo marking for this movement, oddly enough, is too slow for most conductors. Gardiner, for example, performs the movement at 90-92 half-notes per minute, which is at least ten units faster than the indicated marking.\(^\text{15}\) As shown in Figure 3.8, the C major and the instrumentation at the beginning of the fourth movement suggest heroic and victorious characters; Janice Dickensheets described the celebratory style as:

An expansion of Ratner’s Military Style, this topic (Heroic Style) carries with it strong Beethovenian associations. Used frequently to signify victory, it is most often delivered in a powerful major key. Its fanfare figures often encompass the entire orchestra and are frequently accompanied by timpani and trumpet (recalling the long tradition of pairing these two instruments) in an expansive show of heroism. This style can be incorporated into a number of other styles and dialects when a victorious affect is desired. Fanfare figures can also be used to indicate class distinction, as in the topical representation of the aristocracy in Mendelssohn’s *Overture to a Midsummer Night’s Dream*. The last movement of Beethoven’s fifth symphony contains the quintessential example of this style and Schumann uses it effectively in the first movement of his Piano Concerto in A minor, OP.54.\(^\text{16}\)

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\(^{14}\) Benjamin Zander, “Discussion and Performances of Symphony No.5, Mvt.4,” *Beethoven: Symphonies No.5 & No.7*, CD, Telarc, 1999.

\(^{15}\) John Eliot Gardiner, Beethoven: Symphonies Nos. 5 & 7, SDG B009B52FIK 2012, CD

In this crucial moment of the symphony, a grander approach could better achieve the triumphant effect by obeying Beethoven’s slow metronome marking. This movement is in a homophonic chordal texture. As shown in Example 3.8, the grandeur of the movement is created by the thick tutti chords that need more time to speak. Put differently, Beethoven’s metronome marking is appropriate to meet the characteristics described in Ellison’s descriptive table for the first time in this symphony.
Example 3.8. Opening of the Fourth Movement.
Chapter IV

Further Applications: The Section and Phrase Levels

In addition to determining the tempo of an entire movement, the concept of Affective Key Characteristics could be applied to smaller levels of form. One section for consideration is the transition from the 3rd movement to the 4th movement (Example 4.1, mm. 325-374). This section is described by Benjamin Zander in the liner notes to his recording:

The trajectory of the movement is towards near silence, a deceptive cadence on A-flat whose silences hush of ultimate ambiguity. Horror, expectation, fear, hope, almost anything one cares to read into it can be heard in it. It is certainly one of the most original passages in all of Beethoven. As this ultimate quiet is extended over a great span of time, as the eerie melodic line of the violin rises ever higher, the listener could almost feel the tension of the player themselves feel as they fight with every fiber in their body against the natural urge to make a crescendo, while the screw turned every tighter. But Beethoven has reserved the crescendo for just the last few moments as it merges into the finale. And it is this almost cruelly enforced continued pianissimo that makes the suspense of the passage so terrifying, the release of the ultimate arrival so overwhelming.\(^{17}\)

This section is considered the darkest moment of the entire symphony, as described in the liner notes above. It is marked ppp, with the appearance of sparse motivic materials in the treble part, and a tonic pedal in the bass. This section is in A-flat major, which is an uncommon key choice in this particular C minor-major movement.

According to Ellison’s key descriptions (Table 4.1), the characterization of the first praxis for A-flat major is grave, solemn, gloomy, and dark. Taking the key descriptions and the musical context into consideration, together with the incredibly soft dynamic, the tempo should remain absolutely steady to create the sombre and the solemn

\(^{17}\) Benjamin Zander, “Discussion and Performances of Symphony No.5, Mvt.3” *Beethoven: Symphonies No.5 & No.7*, CD, Telarc, 1999.
character for the section. Simultaneously, the treble part alludes to the rejoicing character of the fourth movement in C major.

While the bass is in A-flat major (bars 325-350), the treble is moving towards C major: in m. 356, E-flat is replaced by E-natural and in m. 360 A-flat is replaced by A-natural. These alterations represent a ray of hope. E-natural does not signify hope in any way if it is taken out of context; however, in the context of this section, the E-natural is raised a semi-tone higher than the previously highest point of the section. Moreover, it follows an ascending sequence, which eventually leads to the triumphant finale of the symphony. One of Ellison’s descriptions for C major is “light,” which is fitting given the reading I just presented.

In order to better prepare for the arrival of the fourth movement, it is essential to keep the A-flat major bass absolutely steady and resist any temptation to accelerate in this section. This steady rhythmic pattern will allow the E-natural and A-natural to shine through in the treble part better.

Another example of a situation in which key characteristics can be used to determine tempo for a given passage of music is in the Ab-minor variation in the second movement. The absence of a tempo indication in this section is confusing to the interpreter. Firstly, A-flat minor was not a commonly used key in the 19th century, and it is often associated with depression and death. That is not surprising to find out in Ellison’s Key description table: A-flat minor portrays a most profound depression, misery, and is funereal.
Example 4.1. Transition Between the Third and the Fourth Movements. (continued)

Table 4.1. Ellison’s Affective Key Characteristic Descriptions for A-flat Major

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>A key of grave, solemn, gloom, dark</td>
</tr>
<tr>
<td>Second</td>
<td>Heavenly, cantabile</td>
</tr>
</tbody>
</table>
Beethoven seldom uses A-flat minor in his music. However, whenever it does appear, the key has been described by Berlioz as “very dull and mournful” carrying with it a sense of mystery, heaviness, and solemnness. This description could easily be related to Ellison’s description of the key (Table 4.2). The A-flat minor key appears in the slow movement of the Op.26 piano sonata (Example 4.2) from which the sonata gets its subtitle—“Funeral March.” The movement contains march-like dotted rhythmic chords that occur throughout the whole movement. The key in the context of this sonata movement is not completely surprising given that it is the parallel minor of the home key, A-flat major. This parallel major-minor key relationship could also be related to the third movement of the Fifth Symphony.

Table 4.2. Ellison’s Affective Key Characteristic Descriptions for A-flat Minor

<table>
<thead>
<tr>
<th>Praxis</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Deepest depression and misery, funereal</td>
</tr>
</tbody>
</table>

This example from the piano sonata does not suggest the A-flat minor of the symphony is a Funeral March in any sense. However, there is a recurring musical trait present in both examples that points to the march topic: the presence of the dotted-eighth sixteenth rhythmic pattern. Tovey characterizes this variation as “smiling through tears.” By contrast, Zander describes this variation as a “world of the dance” with the presence of the “spiky dotted rhythm.” This A-flat minor variation (Example 4.3) contrasts with the other variations in the second movement, one that therefore requires a

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18 Ellison, *The Key to Beethoven*, 160.
different character and tempo. The texture of this variation is complex and occupies a wide register as compared to the other variations, which are more compact and denser.

Example 4.3. Variation 3, A-flat Minor.

One of the core elements of sonata form is opposition or contrast. Contrast might be seen between the different characters of the first and second theme, for example. The opposition could be found in the development section of a sonata form, where the composer often includes new materials and explores distant tonal areas. Beethoven’s development section in the fourth movement of this symphony is no exception—as it is filled with opposing emotional elements. One of these opposing emotional moments happens at the end of the development section (bars 123–131), as mentioned earlier. The
emotional conflict in this section is heightened by the juxtaposition of keys, which projects two opposing emotions.\textsuperscript{22}

Example 4.4 shows a portion of the development section of the fourth movement. In mm. 123-131 Beethoven juxtaposes two characters, signaled by the presence of two tonalities: one in the treble and one in the bass. The one in treble, E-flat major, is presented in the flute part (Example 4.4), whereas the one in bass, A-flat major, is presented in the viola, cello, and double bass parts (Example 4.4).

This juxtaposition of the bright E-flat major ascending motive and the A-flat major descending motive imparts a great contrast and instability to this section. If we perceive these two keys (E-flat and A-flat) as two parallel moving keys, we could heighten the tension by allowing independent phrasing direction between the two voices. That said, the E-flat major ascending motive (flutes) could be pushed slightly forward towards the downbeat of the following bar; in order to create even more tension between the two independent voices, the Ab major descending chord (cello, double bass, and contrabassoon) could be more deliberately placed, keeping a steady pulse. Even in other places where tempo creates a problem, key characteristics could offer a significant contribution to lessening the subjectivity of the interpretation (or to ground performance-based research).

\textsuperscript{22} I initially thought this section was in Ab major until I learned the piano transcription and played it for a conductor. He wanted me to project just the bass line to keep the orchestra together at this crucial moment. However, as the musician who has to play both the bass and the treble parts on the piano, I felt a conflict physically when I was practicing this section. So, I isolated all the instruments and practiced them separately. I found the flute melody actually sounded like E-flat major on top of the A-flat major bass melody. The E-flat major key is majestic and has forward motion; and the Ab major is solemn and dark, which has the tendency to hold the tempo back.
Example 4.4. Fourth Movement (Bars 123-131).
Example 4.4. Fourth Movement (Bars 123-131). (continued)
Chapter V

Conclusion

Before I started this project, I had an assumption that Beethoven’s tempi were all too fast, unplayable, and that Beethoven probably had a “broken metronome.” This project made me realize that Beethoven’s tempi tend to make sense if his markings are not taken too literally. As mentioned by Norrington, “Beethoven was aware of the importance of tempo in his music and considered it an integral element of its ‘character’—that category which he felt to be essential to his music.”\(^1\) Subsequently, Norrington stated, “You should be the advocate of the composer, not his master. You do not need to change notes or tempo—the composer is all,”\(^2\) which I wholeheartedly agree with, more now than ever. For instance, after completing a comparison of the Kleiber and Gardiner’s recordings, it is clear that their tempi, and more so, character, are very much aligned with the Affective Key Character description as outlined by Ellison, which could not be coincidence.

More questions arose after delving deeper into the topic of tempo in Beethoven, such as: Is it necessary to play up to his tempo or just taking the spirit (character) of the tempo in a controlled manner? Kleiber’s and Gardiner’s recordings represent equally successful performances and receive many excellent reviews. Neither performer played Beethoven’s markings precisely, but both are closer to his markings in comparison to others. These recordings have something “new” to offer the audience, such as a “new” tempo, which is not really new. One could consider the effectiveness and importance of tempo choices after listening to these recordings, and it is very refreshing to hear “new”

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2 Norrington, “In Tune with Time.”
and daring interpretations of the piece that we all know so well; this changed my thinking over the two years since the beginning of this project.

In other words, Beethoven is sure about these metronome markings and especially clear about his character choices. On the other hand, as mentioned in the Introduction in Chapter I, there are a handful of examples that point to his impossible metronome markings, such as the “Hammerklavier Sonata,” which brought me to this discussion. As we know, the musical interpretation of a piece is a highly subjective topic. To lessen the subjectivity a notch lower, we could use an extra bit of information in the music—tonality—as a tool to decide a possible tempo for the piece.

This paper demonstrates that the unique expressive properties of keys can be a significant asset for exploring various characters embedded within the music, inviting performers to explore interpretations that are not necessarily tied to metronome markings.

Although this document focused on one work in Beethoven’s output, it would be interesting to apply the concept to other. One particularly interesting avenue for investigation is Beethoven’s song output, where it is common to transpose a work to suit the tessitura of the singer: how might performers account for the different keys, and how would that affect their interpretation? Such questions may well represent the next stage of this project.
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