

EASTMAN COMMUNITY MUSIC SCHOOL

TERTIAN RELATIONS IN THE MENDELSSOHN VIOLIN CONCERTO

Violin Concerto in E Minor, Op. 64

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Introduction

Felix Mendelssohn, who lived from 1809 to 1847, was one of the most well-known Romantic composers. Throughout his life, he composed¹ five symphonies, numerous chamber works, and music for theatrical productions such as *A Midsummer Night's Dream*. Yet, for all his compositional breadth, he wrote just one violin concerto in his entire lifetime: Violin Concerto in E Minor, Op. 64, which I will discuss in this paper. In particular, I will argue that this concerto is a tertian work constructed using thirds. Although thirds are quite characteristic of the musical language of the Romantic period because they are a useful medium that composers used to inject embellishments and virtuosity into their pieces, I will argue that the presence of numerous different elements related by thirds within the concerto is not by coincidence but rather due to the special significance that this interval holds.

My argument comprises three parts. In the first, I will analyze themes in each of the movements, comparing musical gestures and motivic figures to show how the third is used in the construction of these themes. Then, I will focus on a larger-scale analysis, this time of the melodic framework of certain passages in the piece. The examples I will use in this section are predominantly from the first movement. This is not to say that the other movements lack the same presence of the third; instead, it is because the first provided the widest array of compelling examples. Afterwards, I will show how broader key areas are related by thirds before addressing potential objections to my thesis, which argues that the interval of the third is the concerto's unifying feature due to its significance at the melodic, harmonic, and key area levels.

¹ "Felix Mendelssohn," *Naxos*, Accessed May 2, 2016, http://www.naxos.com/person/Felix_Mendelssohn/24619.htm

I. ANALYSIS OF MUSICAL SURFACE GESTURES

A. Analysis of thematic material within the first movement

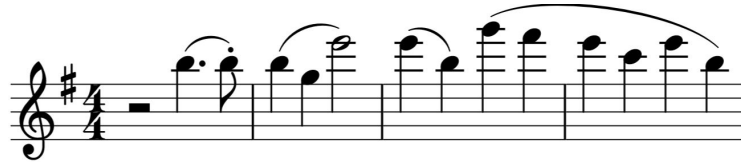


Fig. 1a: Theme 1.1, violin melody, mm. 1-4

The opening theme and first example of the interval of the third is shown above in Figure 1a. Hereinafter referred to as Theme 1.1², this theme is characterized primarily by the motives of the dotted rhythm and the outlining of an E minor triad as well as the melodic figure of the leap of a sixth – which occurs between each the three musical gestures that comprise the theme, as illustrated in Figure 1b below. Both the outlining of the E minor triad, which consists of two thirds and the leap of a sixth (an inverted third) are gestures derived from the third.

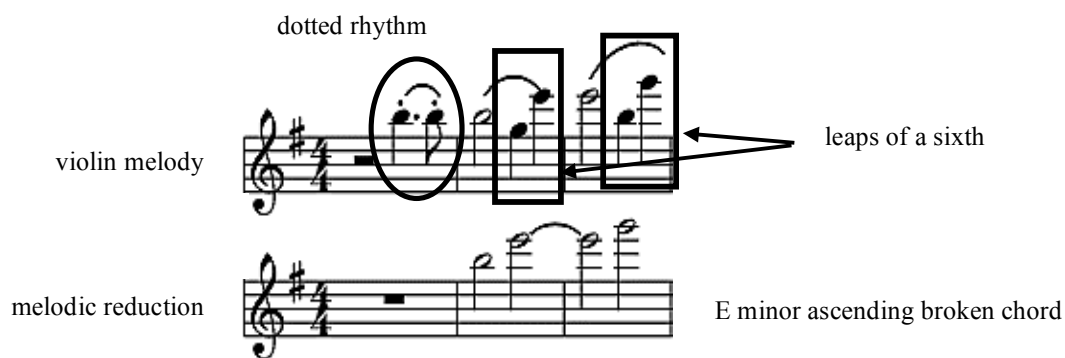


Fig. 1b: Melodic reduction of Theme 1.1, mm. 2-5

² Themes within the piece are indicated in the format of [movement].[theme number]; e.g. Theme 1.1 designates the first theme of the first movement




mm. 168 (III = G major)	
mm. 211 (derived from the vii ^{o7} chord of E minor)	
mm. 262 (I = E major)	

Fig. 1c: Additional appearances of Theme 1.1

Theme 1.1 occurs several times throughout the movement, primarily presented in different keys. For example, shown in Figure 1c above, it is used as melodic material in both the development (G major, mm. 168, and vii^{o7}/E minor, mm. 211) and in transition to the cadenza (E major, mm. 262).

The three aforementioned characteristic elements of this theme (the leap of the sixth, the outlined triad, and the dotted quarter-eighth note rhythmic figure) are also used throughout the movement as the foundation for other melodic ideas. Notably, the theme at measure 76 (which hereinafter will be referred to as Theme 1.1A) includes the leap of the sixth, which is prominent in Theme 1.1. Additionally, if the lower neighbor tones are removed, as shown in Figure 1d below, the E minor triad remains, only this time outlined in a descending pattern.


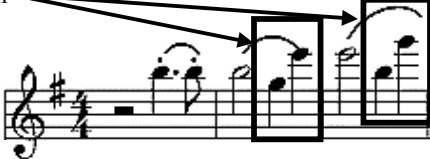


		leaps of a sixth	
76			
violin melody			
			
melodic reduction		retrograde	

Fig. 1d: Comparison between Theme 1.1A (left) and Theme 1.1 (right)

Effectively, Theme 1.1A is an embellished retrograde idea derived from Theme 1.1. The general melodic contour of Theme 1.1A is characterized by the interval of the third and the leap of the sixth (an inversion of the third), linking it to Theme 1.1 and suggesting the importance of the third throughout this piece.



Fig. 2a: Theme 1.2 and melodic reduction to a B minor triad, mm. 139-144

The second theme, Theme 1.2, contains motifs that are similarly derived from the third. It is defined by the pattern of three syncopated notes starting on the weak beat, the dotted-quarter and eighth-note rhythmic motif (circles), and the outlining of a triad (the melodic trajectory follows the B minor triad), illustrated in Figure 2a above. Theme 1.2's melodic content is also present throughout the movement, as shown in Figure 2b below.



Fig. 2b: Comparing instances of Theme 1.2

As seen in Figure 2b on the previous page, Theme 1.2 is stated in the development, the recapitulation and the coda, and the aforementioned motif of three repeated notes starting on the weak beat is also used in the transition between the second tonal area and the development. In these instances, both the metrical position of the notes and the articulation (indicated in the diagram with tenuto markings³) are identical to that of Theme 1.2's original occurrence and helps to show the connection between the musical figures of these sections.

While the use of Theme 1.2's melodic content in the recapitulation is typical of musical works composed in sonata form (such as this movement of the piece), which was a common structure for many pieces, the appearances as transition material and in the coda is atypical. These instances of Theme 1.2 points to the significance of the theme and its motifs, just as the numerous variations of Theme 1.1 do. The implied importance of these two key themes further extends to that of the interval of the third, which is a crucial motivic element within both themes.

B. Triadic themes within the second movement

The second movement begins with the lyrical Theme 2.1 in C major, VI key of E minor. This is one of two main themes that appear in the second movement, both of which are, like those of the first movement, are tertian, even though the musical figures are now expressive and musically rather than virtuosic ones.

³ All musical examples based on the International Music Company Edition edited by Zino Francescatti

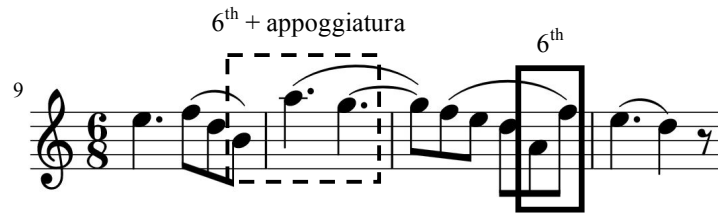


Fig. 3: Opening theme of movement two, Theme 2.1, mm. 9-12

From Figure 3 above, this interval is evident with the descending triad pattern on the second beat of the first measure. However, the figure of the leap of a sixth presents itself in two ways. First, in the second measure, the non-chord-tone A is an appoggiatura that falls to a G; however, this appoggiatura serves as an embellishment of the overall figure, which is a leap of a sixth, shown by the dashed box in the diagram. Additionally, the melodic figure in mm. 9 that opens Theme 2.1 contains the same notes and intervals as those of Theme 1.1. Furthermore, the leap of the sixth from A to F in the third measure, in the solid box, constitutes the identical melodic shape as in Theme 2.1, comprising of a descending fourth followed by an ascending minor sixth.

Like the first movement, the second movement also contains a “Theme 1A,” or a varied appearance of the initial theme, indicated in Figure 4 below. In mm. 21, the notes ascend to a long E through a nearly-exact retrograde contour (a difference of just one note) outside of the opening theme, where the passage starts on a long E before descending to an F and a D.

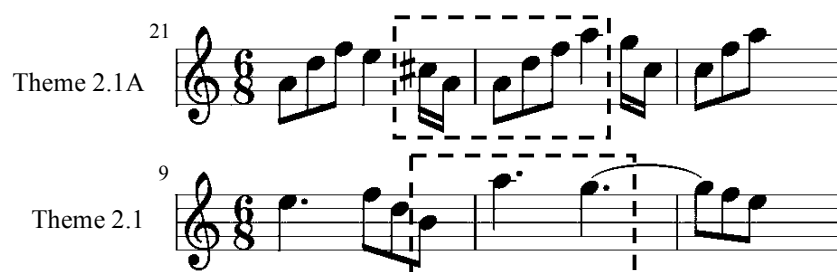


Fig. 4: Theme 2.1A (above) compared to Theme 2.1 (below)

The main differences between Theme 2.1 and Theme 2.1A lie in the overall direction of the melodic line and the presence of accidentals. Theme 2.1, which begins on an E contains a descent before a leap to an A, which is the aforementioned appoggiatura that embellishes the leap of a sixth, before descending to a cadence.

However, in Theme 2.1A, the melody begins with an ascent to the E. Then, it descends and ascends, contrasting with the corresponding part (end of mm. 21 and beginning of mm. 22 in 2.1A, but mm. 9 and 10 in 2.1) of Theme 2.1, which ascends before descending and contains the exact opposite melodic contour.

This contrast in contour suggests that Theme 2.1A is a retrograde of Theme 2.1, a relationship much like that between Themes 1.1 and 1.1A. The presence of ascending and descending broken chords highlights the importance of the interval of the third, as does the retrograde relationship: two of the prominent themes within the movement are again based on the third.

C. Connections between thematic material within the third movement

Unsurprisingly, the themes of the third movement, like those of the prior movements, are constructed with the interval of the third as a foundational feature, further asserting the significance of the interval within the structure of the piece. The melodic figurations within the movement are either direct statements of thirds or embellished ones. Common melodic contours between themes, which is due to instances of the interval of the third within the themes, link the themes.

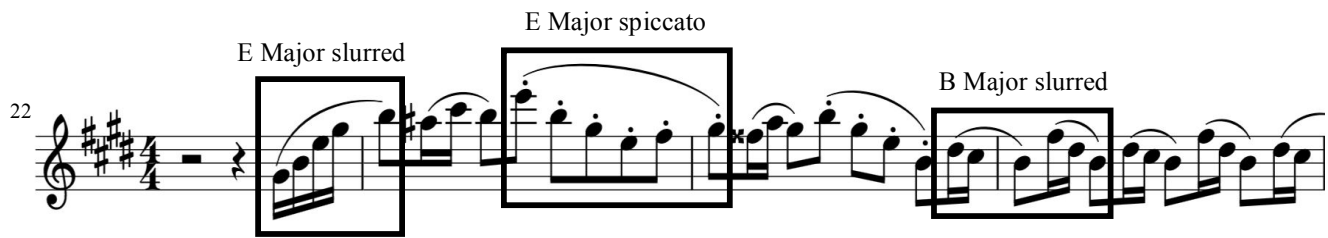


Fig. 5: Opening melodic figure in the Allegro section, violin melody mm. 22-25

In Theme 3.1, shown in Figure 5 above, the melody outlines the E and B major chords with arpeggios in the form of both slurred and spiccato fragments. While this section is a relatively simple transition from E to B arpeggios (I to V) in the violin melody,

In Theme 3.2, shown below in Figure 6, the overall melodic contour also comprises of the interval of the third. In fact, this theme outlines the E major chord on the longer notes (B, G#, E). This motif is also used in the opening section of the movement, except in the key of A minor. The main motif is the four notes of B, F#, G#, E (E, B, C, A, at the opening of the movement).

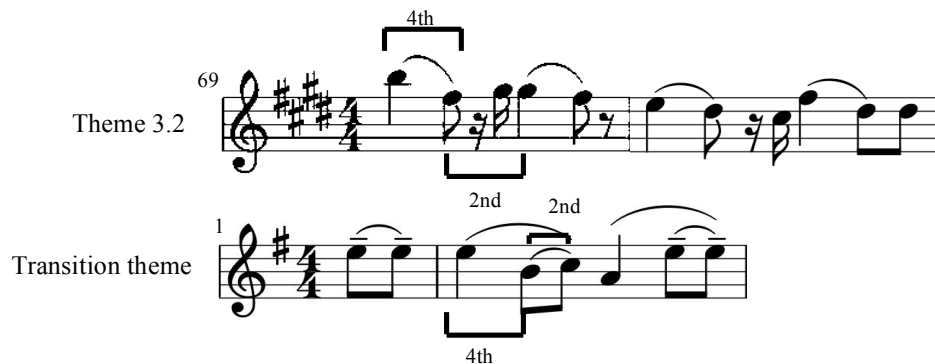


Fig. 6: Comparison between Theme 3.2 and the transition theme

This melodic contour and the note intervals indicate this motif. The *Allegretto non troppo* (mm. 1 - 14) and *Allegro molto vivace* (mm. 15 onwards) sections of the movement are linked by this four-note pattern. The outline of the melody is also triadic: the general contour outlines either the E major or A minor triad.

The examples from this section are themes defined by the interval of the third, pointing to the importance of that interval as a unifying element. In the following section, I will analyze the presence of the interval of the third within the harmonic framework of the piece.

II. ANALYSIS OF THE UNDERLYING MUSICAL FRAMEWORK

The figure displays three systems of musical notation, each corresponding to a measure range (25-29, 30-33, and 34-36). Each system includes three staves: 'melody' (treble clef), 'melodic reduction' (treble clef), and 'bass line' (bass clef). The key signature is one sharp (F#). The melody is marked with circled notes and fingerings (6, 3). The melodic reduction shows the underlying harmonic structure. The bass line provides the harmonic accompaniment.

System 1 (Measures 25-29): The melody begins with a circled note on G4, followed by a series of sixteenth notes. The melodic reduction shows the underlying harmonic structure. The bass line consists of a series of chords.

System 2 (Measures 30-33): The melody continues with a circled note on G4, followed by a series of sixteenth notes. The melodic reduction shows the underlying harmonic structure. The bass line consists of a series of chords.

System 3 (Measures 34-36): The melody begins with a circled note on G4, followed by a series of sixteenth notes. The melodic reduction shows the underlying harmonic structure. The bass line consists of a series of chords.

Fig. 7: Melodic and harmonic reductions of mm. 25 – 36, in the first movement

On the harmonic level, various passages are also related by the interval of the third. In the first movement, a sequential passage of triplets follows the opening melody, as shown in Figure 7 on the previous page. Each pair of triplets is constituted of two neighbor tones to a centric note (circled in the diagram). These "centric notes," which are chord tones, are placed on metrically strong beats and accented within the solo part, suggesting their significance. The neighbor tones further highlight this importance, as they pull towards these "centric" notes. Looking at the reduction, it becomes evident that the violin melody is constructed from a series of arpeggios, indicating the thematic significance of the third. Furthermore, the arpeggiated chords, namely E minor, A minor, and C major, stand in tertian relations to each other.

The figure displays a musical score reduction for measures 238-244, organized into two systems. Each system contains three staves: 'melody' (treble clef), 'melodic reduction' (treble clef), and 'bass line' (bass clef). The key signature is one sharp (F#) and the time signature is 4/4. In the first system (measures 238-241), the melody features several circled notes, and the bass line shows sustained chords. The second system (measures 242-244) continues this pattern with more complex melodic lines and sustained bass chords.

Fig. 8a: Reduction of mm. 238-244

Figure 8a depicts a harmonic progression related by thirds in the development. The notes on the metrically accented beats are appoggiaturas, embellishing the main melodic line (second line in

diagram and circled notes). Without these embellishing tones, it is clear that the subsequent series of arpeggios, starting with D^7 , constitutes a harmonic descending progression to G and then B^7 . The music continues in a similar fashion throughout the entire section, until mm. 255.

Figure 8b is the violin melody of the entire passage, with the circled notes in the first line indicating chord tones from the section illustrated in Figure 8a. The chords D^7 , G, B^7 (all in Figure 8a), E minor (mm. 246), $G^7 \rightarrow C$ (mm. 247-249), $E^7 \rightarrow A$ (mm. 250-253), and $B^7 \rightarrow E$ (mm. 254-255).

The figure shows a violin melody in treble clef, 4/4 time, spanning measures 238 to 255. The key signature has one sharp (F#). The melody is characterized by arpeggiated figures. Circled notes in the first line (mm. 238-243) indicate chord tones. Harmonic annotations in boxes are as follows:

- Measure 246: E minor
- Measures 247-249: $G^7 = V^7/C$
- Measures 250-253: $E^7 = V^7/A$ and A minor
- Measures 254-255: $B^7 = V^7/E \rightarrow E$ Major
- Measure 255: C Major

Fig. 8b: Violin melody, mm. 238-255

This series of dominant-tonic motions in alternating keys, embellished by arpeggios, contributes to the significance of the third, especially given that the dominant seventh chords and resolution chords create two alternating series of thirds (D^7 , B^7 , G^7 , E^7 and G, E, C, A). This cycle of keys eventually ends in E major, is used to transition into the cadenza in B major, which further demonstrates the significance of the interval of the third since the progression here serves more of a musical purpose than merely providing general virtuosic figurations for the soloist, even though this is in the context of a concerto.

Figure 9 displays musical notation for measures 113-120, illustrating implied resolutions and cadential 6/4 prolongation. The notation is organized into two systems, each containing three staves: melody, melodic reduction, and harmonic reduction.

The first system (measures 113-116) shows the progression from B \flat Major: I $^{6}_{4}$ to D minor: vii $^{o4}_{2}$. The second system (measures 117-120) shows the progression from B \flat Major: V 7 to G Major: V $^{6}_{5}$.

Fig. 9: Implied resolutions and cadential 6/4 prolongation, mm. 113-120

A harmonic progression of thirds also appears in the first movement through implied chordal resolutions, shown in Figure 9. The arpeggios are a musical surface example of the third; however, the implied resolutions they outline are also related by thirds. In mm. 113, the notes F, B \flat , and D constitute I 6/4 of B \flat , which does not resolve but implies a B \flat key center. Similarly, in mm. 115, vii $^{o4}_{2}$ chord implies D minor, followed by V 7 implying B \flat and V 6/5 implying G major.

These implied resolutions, namely B \flat major, D minor, and G major are related by thirds. Additionally, the harmonic movement from I 6/4 to V 7 of B \flat major actually functions as a cadential 6/4 of B \flat major, and the diminished seventh chord is a prolongation of the dominant in this instance. The fact that this is done using chords related by thirds and arpeggios further highlights the importance of the third.

The figure displays four musical staves in 4/4 time. The top staff, labeled 'melody', contains a sequence of triplets. Several notes within these triplets are circled, indicating descending thirds. The second staff, 'upper set reduction', shows notes on the strong beats (1, 3, 5, 7) of each measure. The third staff, 'lower set reduction', shows notes on the weak beats (2, 4, 6, 8). The bottom staff, 'harmonic reduction', shows chords that correspond to the upper and lower sets of notes, illustrating the 'interlocking thirds' concept.

Fig. 10: Interlocking thirds in the development of the first movement, mm. 181-183

The passage in Figure 10 contains arpeggios within the melodic line, another explicit presentation of the third. Each triplet outlines a chord, seen via a comparison to the accompaniment. Shown by the circles in Figure 10, the notes on the metrically strong and weak beats create two series of descending thirds that are demarcated by the registers of the notes and direction of the lines.

These “interlocking thirds” outline a diminished ninth chord on a root of F# on strong beats and a major ninth chord on a root of G on weak beats. This is similar to the examples from Figures 8a and 8b, where the dominant-seventh and tonic chords created an “interlocking” series as well. In both cases, the third was both the basis for the melodic figures and the underlying framework.

These examples included varied instances of tertian musical frameworks within the piece, from interlocking sets of notes to implied resolutions, and how it functions in the context of the harmonic progressions and structure of individual sections. As I will proceed to show, the interval of the third, also serves as the foundation for relations between key areas, both in individual movements and throughout in the entire concerto.

III. ANALYSIS OF LARGER KEY AREA RELATIONS

Tertian relations were used as both structural elements of the melodic surface material and as the underlying framework of individual sections of the movements. However, on an even larger scale of analysis, the importance of tertian relations within the concerto becomes even more evident, as the keys within sections of the individual movements stand in tertian relations to each other.

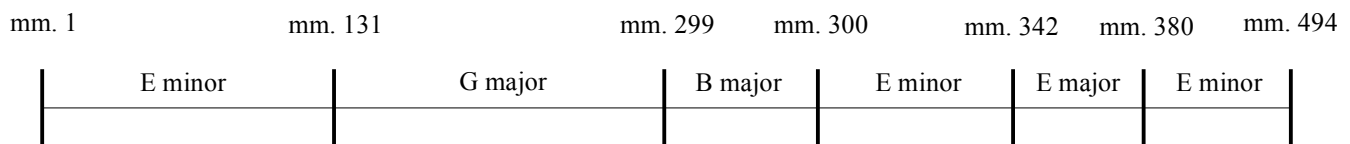


Fig. 11: Key diagram, movement 1

As shown above in Figure 11, the first movement begins in E minor before transitioning to the relative major of G major in the second tonal area of the movement -- the III key. Afterwards, it moves to B major, which is the III key of G major, in the cadenza (which, as previously mentioned, is also constructed with triads). In the recapitulation, it returns to E minor and then E major before concluding in E minor. All of these movements between keys are either by thirds or fifths (B major to E minor), and a fifth consists of two thirds.

The third movement actually has a similar structure, although the presence of G major is embedded within the B major section, and the key diagram is shown below in Figure 12.

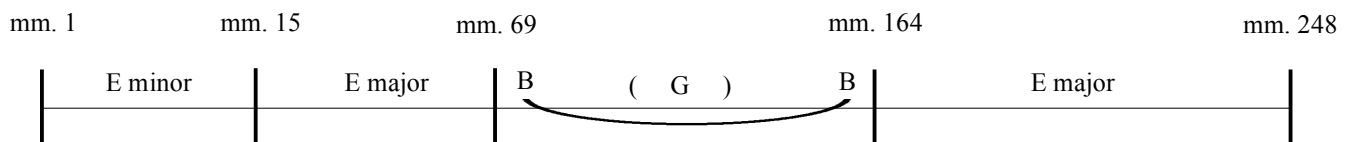


Fig. 12: Key diagram, movement 3

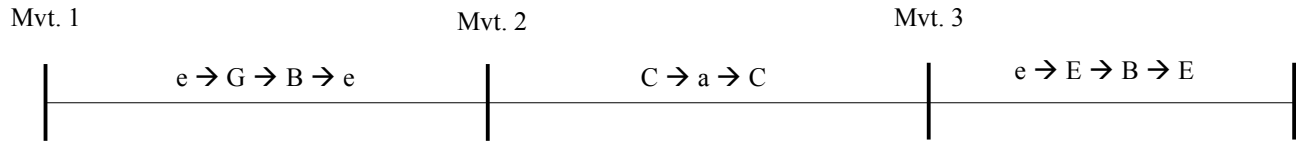


Fig. 13: Key diagram of the entire piece

Figure 13, above, is the key diagram of the entire piece. Upon first glance, it is evident that each of the three movements, as previously mentioned, contains general key areas that are related by thirds. Furthermore, the entire piece also shares this symmetry: E minor moves to B major, then E minor, C major, A minor, C major, and finally E minor, B major, and E major. The framework of key areas within the piece is thus palindromic in structure.

A, C, E, G, and B are pitches all related by thirds. However, more importantly, this series of pitches is symmetrical around the axis of the pitch of E, which is the tonic of the concerto. The symmetry around E minor can be seen from how the piece unfolds by thirds from E as an axis, which further emphasizes the importance of the interval of the third within this concerto.

IV. ACKNOWLEDGEMENT OF POTENTIAL COUNTERARGUMENTS

In this paper, I have attempted to show how the interval of the third and tertian relations are crucial to the construction of Felix Mendelssohn's Violin Concerto in E Minor. Given that tertian harmonies formed the basis of the harmonic language of many Romantic Era compositions, the unique significance of the interval of the third in the context of this piece could be disputed.

I attempted to show that the interval of the third was used in outlining chords which themselves stand in tertian relations. One could object that certain passages are used to showcase the virtuosity of the soloist rather than due to the importance of the interval of the third. However, given the numerous ways in which the underlying skeleton of the melodic surface could have been created, the fact that Mendelssohn selected musical figures that emphasize the importance of the interval of the third, such as those as shown in Figure 8b and Figure 10. Mendelssohn may even have chosen the third to unify the piece because it doubles so well as a virtuosic figure.

Furthermore, one could object that the instances of the third in many of the musical surface figures themselves are merely coincidental because arpeggios and broken chords are common ways to expand underlying chordal harmonies. However, the typical purpose of these figures and my thesis – that the interval of the third is a crucial element to this concerto – are not mutually exclusive. While these figures are certainly common ways to express thirds, the presence of tertian relations within the framework of different sections and between the key areas of the piece indicate that the interval of the third is as important as I have asserted it to be.

Moving between keys in tertian relations on a broader area, as illustrated by Figures 11-13, is common within the musical language of the time. For example, several other prominent contemporary works, including the Bruch violin concerto, contain key areas that are related by thirds. However, this point in the context of the Mendelssohn violin concerto is not a trivial one; the use of tertian relations on the other levels within this piece are to such an extreme degree that it is evident the key relations are an extension of the many instances of the interval of the third within the concerto rather than a pure coincidence.

V. CONCLUSION

In this paper, I asserted that the third is the unifying musical element in the Mendelssohn violin concerto. In doing so, I explored examples of the interval of the third at three levels of analysis.

In Section I, the musical surface, the interval of the third was used as motivic material that linked various passages. Section II attempted to demonstrate how the third manifests itself on a larger level in the piece and is embedded within the underlying musical framework of the piece. These examples often included tertian melodic material – which supported to my thesis since the third was present in both the musical skeleton and the figurations themselves.

Finally, in Section III, I discussed how tertian relations also exist between key areas within the work. Taking into account the concerto's overall formal framework (as illustrated in Figure 13), the palindromic quality that the main keys (A, C, E, G and B) have, I asserted that the piece develops from the key of E by thirds. With the knowledge that this piece is set in the key of E minor, we may understand all the other significant key areas within this piece as being related to this centric key of E by thirds.

While it's impossible to determine if Mendelssohn's true intentions, the significance of the interval of the third is supported both by the aforementioned examples and the musical markings and interpretation typically used. For example, in the passages from Figure 7 and 10, the notes which I analyzed (strong beats in Figure 7, highest and lowest notes in each measure in Figure 10) are typical emphasized in performance. These are notes that I deemed to be musically significant in

the context of the piece's unifying element; the fact that they are also emphasized in performance – by both myself and many others – supports my choice of notes for analysis.

As I previously discussed, the third was a prominent element in many Romantic era compositions, and it could be argued that Mendelssohn was influenced by other works of the time which is why the third appears to be so significant. However, the sheer quantity of examples using the third that I could have drawn from in this concerto suggest otherwise. Most if not all of Mendelssohn's critically important musical figures and melodic outlines of passages are derived from the interval of the third or its inversions.

A more accurate way to interpret the context of the Romantic Era would be that, given that the prevailing musical language of the time included thirds, Mendelssohn may have been exposed frequently to works by other composers that used this element, and subsequently chose it as the core of his violin concerto. From the smallest units, groups of just a few notes, to the largest ones, general key areas and the overall keys of the movements themselves, tertian relations are present. Given the motivic, structural, and interpretative support, it is clear that, as I have attempted to show, the Mendelssohn violin concerto is a tertian work, based on the fundamental musical idea of the interval of the third.

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