



MTO 15.2 Examples: Brown, Axis Tonality

(Note: audio, video, and other interactive examples are only available online)

<http://www.mtosmt.org/issues/mto.09.15.2/mto.09.15.2.brown.php>

Figure 1. Opening modulations in several of Shostakovich's fifteen string quartets

No. 1: C major to E \flat major

No. 2: A major to C \sharp minor

No. 4: D major to B minor

No. 5: B \flat major to G major

No. 7: F \sharp minor to E \flat major

No. 9: E \flat major to B minor

No. 14: F \sharp major to E \flat major

No. 15: E \flat minor to C major

Figure 2. Inter-opus third relations among the first six string quartets, and the last six

First six quartets (1938-1956)

C major - A major - F \sharp major - D major - B \flat major - G major

Last six quartets (1964-1974)

A \flat major - F minor - D \flat major - B \flat minor - F \sharp major (= G \flat major) - E \flat minor

Figure 3. Straus's summary of large-scale tonal motion in Stravinsky, *Symphony of Psalms*, first movement (adapted from Straus 1981, 248)

EGB → GBD

The figure displays a musical score for the first movement of Stravinsky's *Symphony of Psalms*. At the top, an arrow points from the chord EGB to GBD, representing a tonal axis. The score is in 2/4 time. The vocal line begins with a mezzo-forte (*mf*) arpeggiated chord, marked *non arpèg.*, and continues with the lyrics "non e - ro." in a forte (*f*) dynamic, marked *senza dim.* The piano accompaniment features a section marked *cresc.* (crescendo) and *ff* (fortissimo), with an 8va marking indicating an octave shift. The piano part consists of several chords and arpeggiated figures, with dynamics ranging from *mf* to *ff*.

Figure 4. *Symphony of Psalms*, first movement, piano part starting two measures before R9: explicit presentation of the axis E-G-B-D

The figure shows a piano part in 2/4 time, marked *mf*. It begins with a sequence of chords and arpeggiated figures that explicitly present the axis E-G-B-D. The score is written for piano and includes a dynamic marking of *mf*.

Figure 5. Shostakovich: Cello Concerto No. 1, first movement, large-scale tonal structure

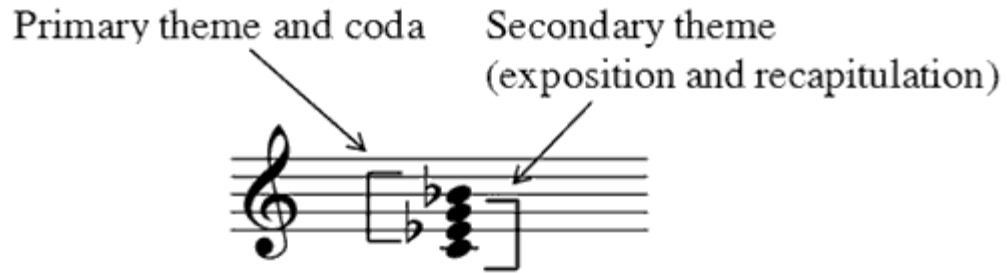


Figure 6. Shostakovich: Cello Concerto No. 1, first movement, opening phrase.
The bass line E \flat -D-C-B drives the music from its initial E \flat major toward C minor

Allegretto ($\text{♩} = 116$)

Cello

Piano

p

p

E \flat D C B \flat

8 va

The musical score shows the opening phrase for Cello and Piano. The Cello part is in the bass clef with a key signature of two flats. The Piano part is in the grand staff (treble and bass clefs). The tempo is marked 'Allegretto' with a quarter note equal to 116 beats. The piano part features a steady accompaniment of chords. The bass line notes E \flat , D, C, and B \flat are indicated below the piano part, with an 8 va (octave up) marking for the final B \flat .

Figure 7. A scalar ordering of Shostakovich's motto (D-E \flat -C-B) links E major and C minor

A musical staff in bass clef with a key signature of two flats. It shows a scalar sequence of notes: D, E-flat, C, and B. The notes are grouped into two dyads: D and E-flat, and C and B. A slur is placed under the entire sequence, indicating a scalar ordering.

Figure 8. Shostakovich: Cello Concerto No. 1, first movement, secondary theme, measures 82–87
 A reordered version of Shostakovich's motto now occurs prominently in a C minor context

Reordering of Shostakovich's motto

Figure 9. A recurring, small-scale expression of the axis underlying the movement

Figure 10. Shostakovich: Cello Concerto No. 1, first movement, measures 74–77
 The accompaniment presents the axis C-E \flat -G-B \flat at the transition from the primary theme to the secondary theme

Figure 11. Shostakovich: String Quartet No. 3, second movement, opening
 The first violin's initial C undermines the viola's opening E minor triad and suggests a conflict between E and C as pitch centers

Figure 12. Shostakovich: String Quartet No. 3, second movement, ending.
 Final chord (boxed) comprises the notes E-G-C-E♭ (spelling upward), suggesting a blend of E minor, C major, and C minor

Figure 13. Shostakovich: Twenty-Four Preludes and Fugues (1950–51), Prelude No. 9 in E major, Phrase 1 (measures 1–10)

Figure 14. Phrase 2 (measures 11–25)

Figure 14 shows the musical score for Phrase 2, measures 11 through 25. The score is written in treble and bass clefs with a key signature of three sharps (F#, C#, G#). The piece is in 4/4 time. The score is divided into two systems. The first system (measures 11-17) features a piano (*p*) dynamic. The bass line contains a sequence of chords: C# minor, E major, G# minor, and B major (implied). The treble line has a melodic line with a dotted half note on G# in measure 17, marked *pp*. The second system (measures 18-25) features a pianissimo (*pp*) dynamic. The bass line contains a sequence of chords: B major (B7), G# minor, and G# minor. The treble line has a melodic line with a dotted half note on F# in measure 18, marked *pp*. The score includes various musical notations such as slurs, ties, and dynamic markings.

Figure 15. Phrase 3 (measures 26–37)

The first set of beams shows the T1 axis D-F-A-C; the second set shows the chord B-D-F-A \flat , which connects this axis back to E major via half-step voice-leading, rounding out the first half of the prelude

Figure 15 shows the musical score for Phrase 3, measures 26 through 37. The score is written in treble and bass clefs with a key signature of three sharps (F#, C#, G#). The piece is in 4/4 time. The score is divided into two systems. The first system (measures 26-33) features a piano (*p*) dynamic. The bass line contains a sequence of chords: D-F-A-C, B-D-F-A \flat , and B-D-F-A \flat . The treble line has a melodic line with a dotted half note on D in measure 26, marked *pp*. The second system (measures 34-37) features a pianissimo (*pp*) dynamic. The bass line contains a sequence of chords: B-D-F-A \flat , B-D-F-A \flat , and B-D-F-A \flat . The treble line has a melodic line with a dotted half note on D in measure 34, marked *pp*. The score includes various musical notations such as slurs, ties, and dynamic markings.

Figure 16. Phrase 4 (measures 38–46)

E \flat Mixolydian →

38

p

pp

8^{va} (top line)

8^{va} (lower line)

Figure 17. Retransition (measures 46–56)

Scalar ordering of motto

46

cresc.

mf

dim.

pp

p

espressivo

8^{va} (top line)

8^{va} (lower line)

Figure 18. Reprise and conclusion (measures 56–71)

E major

56

p

dim.

pp

ritenuto

pp

E major

C \sharp minor →

8^{va} (top line)

8^{va} (lower line)

Final statement of C \sharp -E-G \sharp -B axis

Figure 19. Large-scale tonal structure of the E major prelude

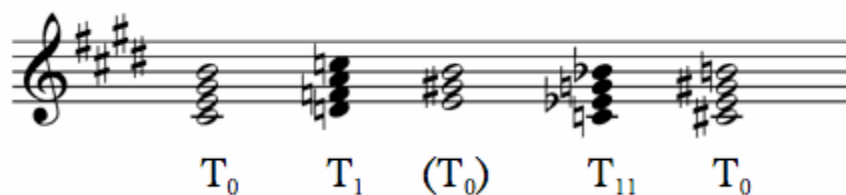


Figure 20. Measures 1–2 of “The Abbot,” as arranged by Tchaikovsky (No. 32 from *50 Russian Folk Songs*)



Figure 21. “Past the Swift River, Past the Swift Currents,” as arranged by Rimsky-Korsakov (No. 100 from *100 Folk Songs with Piano Accompaniment*)



Figure 22a. Rimsky-Korsakov: *Scheherazade*, third movement, opening
(piano arrangements taken from DeVoto 1995, with slight alterations)

Figure 22a shows the opening of the third movement of Rimsky-Korsakov's *Scheherazade*. The score is in 6/8 time and consists of two systems of piano and bass staves. The first system starts with a piano (*p*) dynamic in the right hand and pianissimo (*pp*) in the left hand. The second system begins at measure 5. The music features a melodic line in the right hand and a harmonic accompaniment in the left hand, with various articulations and phrasing marks.

Figure 22b. Borodin: *Polovetsian Dances*, measures 15–18
(piano arrangements taken from DeVoto 1995, with slight alterations)

Figure 22b shows measures 15–18 of Borodin's *Polovetsian Dances*. The score is in 3/4 time and consists of two systems of piano and bass staves. The first system starts with a piano (*p*) dynamic and the instruction *con espressione e dolce*. The music features a melodic line in the right hand and a rhythmic accompaniment in the left hand, with various articulations and phrasing marks.

Figure 23. Mussorgsky: *Boris Godunov*, ending: an ambiguous blending of A minor and its submediant, F major

Figure 23 shows the ending of Mussorgsky's *Boris Godunov*. The score is in 3/4 time and consists of two systems of piano and bass staves. The first system starts with a piano (*p*) dynamic. The music features a melodic line in the right hand and a rhythmic accompaniment in the left hand, with various articulations and phrasing marks, ending with a pianissimo (*pp*) dynamic.