Progressive Chromatic Processes in Rachmaninoff's *Étude-Tableau* op. 33, no. 8

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Progressive Chromatic Processes in Rachmaninoff's *Étude-Tableau* op. 33, no. 8

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In the nineteenth century, many composers expanded the function and implementation of chromaticism within the context of tonality. Sergei Rachmaninoff greatly contributed to this development, as is evident in his *Étude-Tableau* op. 33, no. 8. Rachmaninoff composed the *Études-Tableaux* op. 33 in 1911 during his most productive years as a composer. They are considered an example of his mature style of piano composition.¹ As suggested by the title, the *Études-Tableaux* are studies, each presenting a specific technical challenge; however, in them Rachmaninoff includes a great sense of artistry. In addition, the term “tableaux” implies they are studies of tone painting, as exemplified through his use of colourful sonorities.² In *Rachmaninoff: Life, Works, Recordings*, Max Harrison states that “while exploring a variety of themes, [the *Études-Tableaux*] investigate the transformation of rather

1. Pamela Wright Wilder, “Sergei Rachmaninoff: Understanding the Composer through the *Études-Tableaux*, Op. 33” (DMA diss., University of Alabama, 1988), 1.

2. *Ibid.*, 3–4.

specific climates of feeling via piano textures and sonorities.”³ A thorough analysis of this work reveals how expanded chromatic processes infuse the music and create a varied palette of tone colours.

The *Étude-Tableau* op. 33, no. 8 in G minor has an essentially tonal and diatonic construct, but with highly chromatic sonorities to create tension in the music. Rachmaninoff initially stabilizes the home key through tonic prolongations and functional harmonic progressions before interlacing small chromatic sections to introduce tension (see ex. 1). Progressively increasing the occurrence of chromaticism, he culminates in an intense climax before returning to the tonal solidity that characterizes the opening. Dissimilar to the stabilizing progressions that tonally anchor the piece, many of Rachmaninoff's chromatic harmonies cannot be given traditional functional labels. This poses a problem for an analysis of chromaticism within a tonal idiom because, as Dmitri Tymoczko indicates, our tendency is “to depict chromatic harmony as a series of disconnected idioms, often presented in a ‘one-chord per chapter’ format.”⁴ This structure defines numerous music theory texts and often results in a general understanding of chromaticism in terms of chordal objects as opposed to function or process. The chromaticism in the *Étude-Tableau* op. 33, no. 8 instead requires a method of analysis that focuses on processes such as efficient voice leading and parallel motion, in addition to the harmonic function of individual chords. Evidently, the

3. Max Harrison, *Rachmaninoff: Life, Works, Recordings* (New York: Continuum, 2005), 177.

4. Dmitri Tymoczko, *A Geometry of Music: Harmony and Counterpoint in the Extended Common Practice* (New York: Oxford University Press, 2011), 270.

home key. He moves by whole step from a B $\flat$ major chord in the second half of measure 7 to a tonicized Neapolitan chord. The E $\flat$ dominant seventh chord that directly precedes the Neapolitan chord harmonizes the B $\flat$ at the top of the stepwise descent, replacing the C minor-minor seventh chord used to harmonize the melodic B $\flat$ in the first phrase. Example 1 features this progression.

The tonicization of the Neapolitan chord exemplifies a new harmonic trend that gained popularity in the nineteenth century. As Roland Jackson discusses in his article, “The ‘Neapolitan Progression’ in the Nineteenth Century,” Neapolitan chords were traditionally used in cadential patterns; later composers expanded this limited treatment to exploit the tritone root movement between the lowered scale degree 2 and the dominant, as well as the melodic “sighing” figure created by the descent from lowered scale degree 2 to 1 to 7.⁶ The *Étude-Tableau* contains these features. The “sighing” motive forms an integral part of the melodic descent in the first and second phrases (see circled notes in ex. 1). At measure 16, it is again present in the top voice (see ex. 2).

Jackson discusses the use of the Neapolitan chord as an independent key area; this is often accomplished through frequent prolongation of Neapolitan harmony by means of applied chords.⁷ As previously discussed, Rachmaninoff uses this technique in measure 8 which features an E $\flat$ dominant seventh chord leading to an A $\flat$ major Neapolitan chord, before resolving to the dominant of G minor. The process

6. Roland Jackson, “The ‘Neapolitan Progression’ in the Nineteenth Century,” *The Music Review* 30 (1969): 35.

7. *Ibid.*, 39–40.

occurs several times throughout the remainder of the piece. The longest prolongation of Neapolitan harmony occurs in measures 15–17. Within the passage, Rachmaninoff intensifies the harmony through a tonicized A $\flat$ major chord that spans measure 16 (see ex. 2).

EXAMPLE 2. Neapolitan Harmony and the “Sighing” Motive, *Étude-Tableau*, mm. 14–18, highlighted

The image displays two staves of musical notation from Rachmaninoff's *Étude-Tableau*, mm. 14–18. The top staff is in treble clef, and the bottom staff is in bass clef. The key signature has one flat (B-flat). The music features a 'Sighing' motive, which is a descending chromatic line. The notation includes dynamic markings: *p* (piano) at the beginning, *mf* (mezzo-forte) in the middle, and *cresc.* (crescendo) leading to a *pp* (pianissimo) section. The bottom staff shows a progression of chords: a *pp* chord, followed by a *vii°7* chord, and then a *V^{6/4} - 5/3* progression. The top staff shows a progression from a *G:* I chord to a *V^{#5}* chord, and finally to a *♭ II⁶* chord. The *pp* section is highlighted with a red circle around the first chord and blue circles around the subsequent chords. The *vii°7* and *V^{6/4} - 5/3* progression is also highlighted with a red circle around the *vii°7* chord and a blue circle around the *V^{6/4} - 5/3* progression.

In addition to the expansion of Neapolitan harmonies, the nineteenth century also witnessed the development of progressions structured around process rather than chordal objects. At measure 9, Rachmaninoff's chromaticism can be viewed as a product of efficient voice leading, a process in which all voices move by the smallest distance possible to arrive at the next harmony. Dmitri

Tymoczko explains that nineteenth-century composers began developing the potential of efficient voice leading as a process-based enhancement or replacement of functional harmonic progressions.⁸ Whereas object-based chromatic harmony identifies each chromatic chord through its construction, process-based harmony identifies the transformations and voice leading patterns between adjacent chords within a process.⁹ Rachmaninoff uses the concept of process-based harmony in both his functional and chromatic phrases.

Although in the passage examined above Rachmaninoff creates a functional harmonic progression, efficient voice leading guides the movement from one chord to the next. In particular, the chords that support the “sighing” motive maintain common tones and resolve voices by whole-tone or semi-tone motion. In the areas that incorporate greater chromaticism, process-based analysis is often more applicable than functional analysis. For example, in the second half of measure 9, Rachmaninoff introduces a series of descending second inversion triads in the treble that are not related to one another by means of functional harmony. They are constructed diatonically, using the adjacent scale degrees 8, 7, 6, and 5 as the root of each triad, respectively (see ex. 3 and fig. 1). Although functional labels can identify each chord, the chords progress in a manner that addresses voice leading concerns rather than the function of their labels. Each transformation exclusively involves semitone, whole tone or common tone relationships, which is indicative of a process-based progression. These voice-leading

8. Tymoczko, *A Geometry of Music*, 268.

9. Ibid., 270.

relationships distinguish the individual layers that constitute the three voices present in each chord. Each layer contains a stepwise scale pattern that descends in parallel motion with the remaining two layers.

EXAMPLE 3. Efficient Voice Leading Process, *Étude-Tableau*, mm. 9–10, highlighted

FIGURE 1. Voice Leading Between Chords within the Blue Box in Example 3

The property of efficient voice leading present in the highlighted progression in example 3 suggests an additional

layer of analysis. The chords in this progression are built upon descending parallel scale degrees of the G minor natural scale. John Baur describes this type of process-based movement as “planing” or “parallel chord motion” in *Music Theory Through Literature*.¹⁰ Diatonic planing involves a succession of chords containing only notes that are within the key or scale upon which the plane is constructed. Real planing is highly chromatic, as it involves a direct transposition of one chord to the next. This has the effect of preserving intervallic structures.¹¹ In example 3, Rachmaninoff employs planing as a prolongation of tonic material and a chromatic embellishment to an otherwise tonal progression. Tymoczko states that chromatic embellishment was one way composers could realize the potential of efficient voice leading practices. The motion in the progression occurs over a single beat and although it is framed by tonic harmony, the interspersing chords provide a brief moment of tonal ambiguity. After this tonic prolongation is complete, Rachmaninoff introduces an A-half diminished chord followed by the more familiar Neapolitan chord. Once again, Rachmaninoff demonstrates efficient voice leading in moving from one chord to the next, as demonstrated in figure 2. Further, the transformation from one harmony to the next by the movement of a single semitone acts to increase the tension experienced by the listener.

10. John Baur, *Music Theory Through Literature*, vol. 2 (Englewood Cliffs, NJ: Prentice-Hall, 1985), 124. For examples of parallel chord motion, see Olivier Messiaen, “Modes of Limited Transposition,” *The Technique of My Musical Language*, trans. John Satterfield, vol. 1, *Text* (Paris: Alphonse Leduc, 1956), 58–63.

11. Baur, *Music Theory Through Literature*, vol. 2, 202.

FIGURE 2. Voice Leading between A-Half Diminished and A $\flat$ Major Harmony, mm. 12–13

In measures 19–22, Rachmaninoff employs a descending sequence of four planing figures, each compounding the aural effect of the previous material. The chromatic processes in this passage greatly increase the tension in the music, presenting a conflict between tonal harmonies and tonal ambiguity. In measures 22–25, Rachmaninoff employs planing as a method of dominant prolongation. His plane is neither diatonic nor real, as he does not remain diatonic within the key of G minor, nor does he maintain the intervallic structures of each chord. Although the plane spans the space between two dominant chords, thus prolonging the harmony, this chromatic process creates a strong sense of motion away from the dominant before returning to the familiar harmony. Thus, a conflict between tonal uncertainty and a strong tonal center is created.

In the following measures, Rachmaninoff employs a repeated five note ascending and descending diatonic scale that gains speed and tension with each repetition, creating

climactic anticipation.¹² The scale is derived from the soprano voice of the proceeding planing figure and maintains the dominant prolongation. These processes can be viewed in example 4. The planing figures are indicated by rectangular boxes. As the motion between chords is neither diatonic nor real, voice leading diagrams are provided in figures 3 and 4 for the two respective measures. As in figure 1, the efficient voice leading practices create linear movement between each of the voices in the planing chords.

FIGURE 3. Voice Leading between Chords within the Green Box in Example 6

FIGURE 4. Voice Leading between Chords within the Pink Box in Example 6

12. In this context, the raised scale degree 7 in G minor is considered diatonic because it is commonly considered part of the common-practice minor scale. In example 4, arrows above the staff indicate the intervallic relationships between the roots of the initiating harmonies. The diatonic planing figures are circled in example 4.

EXAMPLE 4. Planing Figures, *Étude-Tableau*, mm. 17–25, highlighted

The image displays a musical score for piano, measures 17 through 25 of Rachmaninoff's *Étude-Tableau* no. 8. The score is written in 2/4 time and features a key signature of one flat (B-flat). The music is characterized by dense, chromatic textures and planing figures. Several measures are highlighted with colored boxes to draw attention to specific planing figures:

- Measures 17-18: A blue box highlights a planing figure in the right hand.
- Measures 19-20: An orange box highlights a planing figure in the right hand.
- Measures 21-22: A purple box highlights a planing figure in the right hand.
- Measure 23: A red box highlights a planing figure in the right hand.
- Measures 24-25: A green box highlights a planing figure in the right hand, and a pink box highlights a planing figure in the right hand.

The score includes dynamic markings such as *pp* (pianissimo), *mf* (mezzo-forte), *dim.* (diminuendo), *pp* (pianissimo), *poco rit.* (poco ritardando), *cresc.* (crescendo), *f* (forte), and *veloce* (allegretto). The tempo is marked *moderato* at the beginning of the piece.

The repeating five note scale eventually transforms into the final ascent to the climax which occurs in measures 26–29. The progression is harmonically structured around a stepwise descending pitch set. After each new pitch of the stepwise descent is presented, Rachmaninoff follows it with a rapid ascending figure. This pitch set, which forms the foundation of the harmonic progression, is comprised of Messiaen's Modes of Limited Transposition 1 and 3 (see fig.

5). These provide a suspended static quality, lacking tension and release, and a varied palette of harmonic colour, created by their perfect symmetrical construction.¹³ The first five pitches of the scale pattern, F#, E, D, C, and B ♭, are respectively related by whole tone, indicating mode 1. The last segment of the descending line contains the following pitches respectively, F#, F♯, E ♭, D, and C#. The intervallic structure governing this last segment in the scale pattern consists of two semitones followed by a whole tone and then two more semitones; this structure indicates mode 3 (see fig. 5).¹⁴ Following the mode 1 segment of the pitch set, movement to an A♯ breaks the pattern of whole tones before moving to a G. This G initiates the second segment of the scale pattern. The seven pitches following the G form a G minor harmonic scale with one chromatically altered pitch: scale degree 2 is lowered to an A ♭. This may indicate that Rachmaninoff chose to incorporate the “sighing” motive once again. Alternatively, this pitch may suggest that the pitch set is derived from C minor natural scale starting on scale degree 5, or the G Phrygian mode.

Rachmaninoff uses an ascending harmonic foundation, harmonized with non-functional planning towards the climax. This causes a loss of the sense of tonal centre, as an array of tonal colours unfamiliar in the key of G minor are introduced. The efficient voice leading prolongs and increases the tension by delaying resolution. The symmetry in the harmonic foundation and employed planing in this section create tonal ambiguity in the escalation to the

13. Robert Sherlaw Johnson, *Messiaen* (London: J.M. Dent & Sons, 1989), 13.

14. Messiaen, *The Technique of My Musical Language*, 58–60.

climax. The final climax is achieved through a *fortissimo* C# minor chord followed by a rapid C# minor-major seventh arpeggio.

FIGURE 5. Mode 1 and Mode 3 in the Harmonic Foundation, mm. 26–30

To conclude the piece, Rachmaninoff recalls his concept of harmonic structure used in the climax. At measures 41–42, Rachmaninoff uses two parallel descending lines of principle tones to serve as the harmonic foundation (see ex. 5). The semitone motion in the lower principle line in measure 42 intensifies the music, continuously delaying resolution. The sequential nature of the thirty-second-note triplets that characterizes the top line in measures 41–42 in conjunction with the parallel descending lines also provide a sense of planing similar to the previous climactic descent. The entire progression in measures 41–42 is supported by a G minor pedal harmony in order to maintain a sense of where the music should resolve amidst the semitone motion and planing figures. After the waves of chromaticism that obscured the tonal centre, the final resolution occurs at measure 43. A rapidly ascending G minor harmonic scale ascends for three octaves, concluding with two solid G minor

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chords. Thus, Rachmaninoff completes a solid tonal framework around the chromatically infused centre, a characterization of his harmonic language.

EXAMPLE 5. Harmonic Foundation, mm. 40–42, highlighted

The image shows a musical score for Rachmaninoff's *Étude-Tableau* op. 33 no. 8, measures 40–42. The score is in B-flat major, 3/4 time. It features a piano (p) and mezzo-forte (mf) dynamic range. The right hand has a melodic line with triplets and a 'poco accel.' marking. The left hand has a bass line with triplets. Circled notes in blue, orange, green, and red highlight specific harmonic elements.

Pamela Wright Wilder states that a thorough analysis of the *Étude-Tableau* op. 33 can facilitate “a better comprehension of Rachmaninoff’s piano music as a whole.”¹⁵ This analysis of *Étude-Tableau* no. 8 reveals that Rachmaninoff’s mature harmonic language is largely tonal, with the use of prolonged sections of chromatic harmony to create and build tension. Although he employed chromatic objects, such as Neapolitan and applied chords, his chromatic language was also highly process-based, giving great

15. Wilder, “Sergei Rachmaninoff,” 3.

consideration to intervallic structures, efficient voice leading, and parallel motion. As expressed by Tymoczko, the chromaticism in this work as well as many of the works of other nineteenth-century composers can be viewed as an “orderly phenomenon rather than an unsystematic exercise in compositional rulebreaking.”¹⁶ Focusing on an approach that analyses chromatic harmonies as a series of unconventional chord constructions can cloud and mystify the larger processes at work, such as efficient voice leading. An understanding of these progressive chromatic processes reveals Rachmaninoff’s technical expertise as a tone painter.

16. Tymoczko, *A Geometry of Music*, 268.

Appendix

Sergei Rachmaninoff, *Étude-Tableau* op. 33, no. 8

Moderato

pp

mf

molto legato e cantabile

con pedale

dim.

p

mf

p

mf

dim.

mf

p

mf

Progressive Chromatic Processes in *Étude-Tableau* no. 8

The musical score for *Étude-Tableau* no. 8 is presented in five systems. The key signature is B-flat major (two flats), and the time signature is 2/4. The score features a variety of musical textures and dynamics.

- System 1:** The right hand (RH) begins with a melodic line marked *dim.* (diminuendo). The left hand (LH) plays a rhythmic accompaniment. Dynamics include *p* (piano) and *mf* (mezzo-forte).
- System 2:** The RH continues with a melodic line, marked *cresc.* (crescendo). The LH features a more active, rhythmic pattern. Dynamics include *p*, *mf*, and *f* (forte). A triplet of eighth notes is indicated in the RH.
- System 3:** The RH features a series of chords, marked *pp* (pianissimo). The LH continues with a rhythmic pattern. Dynamics include *pp* and *mf*.
- System 4:** The RH features a series of chords, marked *dim.* and *pp*. The LH continues with a rhythmic pattern. Dynamics include *dim.*, *pp*, and *poco rit.* (poco ritardando).
- System 5:** The RH features a melodic line, marked *cresc.* and *veloce* (allegretto). The LH features a rhythmic pattern. Dynamics include *cresc.* and *f*.

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A musical score for a piano piece, consisting of six systems of staves. The notation is in a key with two flats (B-flat and E-flat) and a 3/4 time signature. The score includes various musical notations such as treble and bass clefs, notes, rests, and dynamic markings. The first system starts with a forte (ff) dynamic. The second system continues the melodic and harmonic development. The third system features a crescendo leading to a fortissimo (ff) dynamic. The fourth system includes a ritardando (rit.) marking. The fifth system features a mezzo-forte (mf) dynamic. The sixth system includes a piano (p) and pianissimo (pp) dynamic, and a final chord marked with a double bar line.

ff

rit.

ff

mf

pp

f

p

pp

Progressive Chromatic Processes in *Étude-Tableau* no. 8

Tempo I

The musical score consists of five systems of piano and bass staves. The key signature has two flats (B-flat and E-flat), and the time signature is common time (C). The score includes various dynamics and articulations:

- System 1:** Starts with *pp* in the piano staff and *mf* in the bass staff. Dynamics include *mf* and *p*.
- System 2:** Features a *dim.* (diminuendo) marking in the piano staff and *p* and *mf* in the bass staff.
- System 3:** Includes *p* and *mf* in the piano staff, and *p*, *cresc.* (crescendo), and *poco accel.* (poco accelerando) in the bass staff. Triplet markings (3) are present.
- System 4:** Continues the triplet markings in both staves.
- System 5:** Ends with *ff* (fortissimo) in the piano staff, *fff* (fortississimo) in the bass staff, and a final *pp* (pianissimo) in the piano staff.

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