

Voice-leading and Rhythmic Issues in the March from Beethoven's *Sonata in A-Major*, Opus 101

Leon W. Couch III, D.M.A., Ph.D.

Abstract

Beethoven's late works present formidable technical and interpretive challenges to the performer. On the surface of the B-section of March from Op. 101, key relationships seem distant and irrational. The pacing nearly ceases at points and proceeds recklessly towards certain cadences. To help both pianists and listeners, this paper makes sense of this seemingly incoherent B-section by first examining the interaction of motives, voice-leading, and hypermetrical structure present in the A-section. The A-section presents relatively straight-forward voice-leading that could be set at a regular rhythmic pace, but instead, Beethoven created static and accelerated passages, emphasizing consistent linear progressions and deep-level scale degrees. These characteristics hold the answer to the design and perhaps the interpretation of the enigmatic B-section.

The *Sonata in A-Major* shares many features with Beethoven's other late works. The pastoral first movement enjoys many subtleties of phrasing and touch. The third movement serves as a passionate introduction to a long and daring fourth movement that incorporates a virtuosic fugue inside a sonata form. The second movement displays particularly ingenious voice-leading coupled with enigmatic hypermetric patterns. (See Example 1 for its form.) In the March, these two compositional elements create a consistent structure that grows from basic motives into a mature classical march. Dynamic markings and other elements reinforce the rhythmic and contrapuntal forces in this composition.

The opening four measures of the March provide a model for the entire piece with its clear dotted rhythms, hypermetrical structure, and tonal progression. (See Example 2.) The bold fourth-progression in the bass establishes a pace of one harmony per measure, connecting the initial tonic and its strong primary tone to the dominant with its especially prominent seventh. Having nearly achieved the goal of the first section of binary form (namely modulating from

tonic to dominant in a major key), Beethoven emphasizes the significance of the fourth scale degree, B-flat, by lingering on the dominant in mm. 4-5. (The fourth scale degree initially disallows the modulation to the dominant.) The surface figure, G-flat-F, associated with the cover tone in mm. 2-3 will also resurface later in the piece, m. 42. (In this case, the alto voice is placed momentarily above the soprano.)

While Beethoven suspends the regular harmonic motion in mm. 4-5 as the seventh appears, the left hand quickly reiterates the F-C fourth to emphasize the basic motive in an ornamental form: false fourth-progressions abound and the fourth scale degree persists.¹ Notice that the faster surface motion characteristically reflects a retarded harmonic motion. This whole procedure occupies five measures, thus compressing the next material to yield an eight-bar phrase.

In the organic viewpoint, the fourth-progression exerts its will in the dominant key area by proceeding in the bass from the dominant (C) downwards towards its dominant (G) in mm. 6-8. Following the model of the first four measures, this descent should occupy four measures plus one more bar for a cadence on the dominant C. (See Example 3b.) This would result in a ten measure phrase—not a normal opening for a march. To fabricate the expected eight measure phrase, Beethoven accelerates the progression so that it occupies two measures, by following the surface pacing of the static area of m. 4 instead! (See Example 3c.) This stroke of genius unifies the surface and the deeper middleground structures rhythmically in addition to the motivic fourths.

¹Notice that Beethoven foreshadows the seventh-progression in mm. 6-8 with the seventh-progression in the alto, mm. 4-5. In the first progression, Beethoven highlights ornamental fourths. In the later one, he splits the seventh-progression into a fourth and a third, yielding the subsidiary third motive via developing variation.

This manipulation, however, leaves the whole phrase with a fast close that was actually unnecessary to achieve a normal phrase length as shown in a straight-forward rewriting, Example 3a. Of course, I omitted the extra measure lingering on the dominant (m. 6), foregoing the ornamental elements and the desirably smooth change-of-register. Beethoven apparently values this "extra" measure highly as an indispensable emphasis of the seventh, B-flat (4).

The strong presence of the seventh creates a stepwise unfolding of the dominant (or seventh-progression) in the descant which destroys any complete sense of modulation to the dominant as expected in binary form despite the traditional cadence $\mathfrak{3}-\mathfrak{2}-\uparrow$ in C Major.² This somewhat unusual prolongation of the seventh resolves upon the repeat. The third-progression, E-D-C, in m. 8 later takes on a unifying, but subsidiary, motivic task of its own.

The written-out repeat in the voice-leading graph (Example 2) reveals a more bare skeleton of the preceding discussion.³ The second ending, however, does not provide immediate resolution in m. 9 to the seventh. Beethoven extends the dominant by one measure with an apparent resolution to the tonic in m. 10, but it occurs in the wrong register. As if to fulfill the listener's desire, the passage repeats the $\mathfrak{3}-\mathfrak{2}-\uparrow$ close in the obligatory register just a little too late in m. 11. The real resolution occurs on the next hypermetric downbeat in m. 12. The surface resolution with its change-of-register (m. 10) is indicated by dotted lines while the real resolution has a thick beam and half notes as well as scale degree numbers (m. 12). The net result is a three-measure extension to the basic eight-bar phrase.

²Some might hear instead the B-flat proceeding to the C in m. 8 as a descending seventh-progression that represents an ascending second. The great durational and registral emphasis of the B-flat leads me to keep a more unusual dissonant linear progression.

³In the sketches, the first section does not repeat, ending in A Major. The later version provides a second ending that ends in F Major. This revelation reenforces my reading, to my surprise.

The seventh seems to resolve in the next phrase in m. 12 with a sharp change of dynamics and with the beginning of the new hypermeasure, much like the opening. An A Major sonority initiates the complicated B-section, suggesting a I–III[#] motion with an intervening back-relating dominant (I–V⁷–III[#]). (Perhaps the A-major chord points to the key of entire sonata.)

In mm. 12-23, wide leaps obscure conjunct outer lines. As shown in Example 4a, a 10-7 LIP (Linear Intervallic Pattern) accompanies the soprano descent from A to E in mm. 12-18, allowing for a smooth, momentary digression from A Major to C Major. As a result, the sudden E major sonority in m. 19 surprises the listener. (At first, the listener might explain this chord as a back-relating dominant of A Major in m. 12, but my conclusions later in this paper will suggest a different solution.) The immediate and awkward modulation to d minor, mm. 19-23, seems to leave the event unexplained. Note that the goals of this passage, the E-Major sonority of m. 19 and the d-minor chord in m. 23, reinforce hypermetrical downbeats. (We will return to why Beethoven picked these harmonies later.) Although the straight-forward setting of the A–E fourth-progression in Example 4b creates a consistent four-bar hypermeasure, it yields an unsatisfactory musical effect. So, Beethoven establishes A Major by applying dominants in m. 12-14, expanding the phrase by three bars. (See Example 4c.) The addition of applied dominants to the 10-7 LIP also eases the transition, especially with the extra time taken for a C Major cadence. (All this makes the sudden appearance of the E Major chord that much more striking.) Through the sequential pattern based on parallel sixths and surface motives in mm. 19-23 (Example 4a), Beethoven eases the awkward modulation to d minor and also preserves the four-bar hypermeasure.

Example 5a shows a modulation from d minor to D-flat Major accomplished by parallel

sixths in mm. 23-25. (The parallel sixths remedy the parallel fifths in the deep middleground.) The stepwise soprano stretches nicely over a four-bar hypermeter as demonstrated in Example 5b. Such simple material, however, has an especially jarring effect because of its rhythmic presentation: the D-flat area arrives too early and too quickly, as presented in Example 5c. Rather than seeming like a goal attained, the D-flat area launches a new hypermeasure to reinforce the new harmonic area.

From mm. 26-30, Beethoven secures D-flat major by composing a scale descending from D-flat to D-flat in the bass, albeit with a G-natural. Since there are eight notes involved, starting on a hypermetric downbeat and one harmony per note, one would end on the eighth bar, a weak measure. So, Beethoven could have expanded the progression fill two four-bar hypermeasures and a downbeat, but instead, he contracted it to fit into a four-bar hypermeasure to be consistent with previous passages. As can be seen in Example 6b, this presents the problem of too many harmonies. One solution involves doubling the harmonic pace and stopping on one harmony for a full bar, as seen in Example 6c. Instead, Beethoven further increases the number of harmonies by adding applied dominants to the last four harmonies. The effect is one of a written out *accelerando*, as shown in Example 6d. The abrupt halt on the D-flat Major chord in m. 30 emphasizes this measure as the true arrival of this key area. One would expect a grandiose musical effect, but rather, the passage starting in m. 30 seems otherworldly with its soft dynamics and the sudden change-of-pace. The irregular rising resolution of the chordal seventh, G-flat, encourages such an ethereal atmosphere. (See Example 6a to see the transfer of the seventh. Also, notice the depressed damper pedal, mm. 30-34.)

Comfortably fitting into one hypermeasure with a lazy two-measure expansion, the static

D-flat sonority from m. 30-35 continues the dreamy effect (Example 7). Here, the D-flat Major key area transforms into a pre-dominant harmony that resolves to a C dominant-seventh in m. 36. At this point, the martial discourse resumes with a vengeance as the fourth scale step reasserts itself in the top voice, initiating a flurry of dotted rhythms.

We now must ask: Why did Beethoven choose such an arduous journey that returns to the dominant-seventh it left? Example 8 presents the chords that are placed on hypermetrical downbeats. One can see that the upper voice simply hovers around the primary tone, with striking instances of the fourth scale degree and of chromaticism. The lower voice, however, descends from F to C in a large-scale fourth-progression. In this way, the melodic bass of the opening four measures has expanded to encompass whole passages that project harmonic areas.

The next hypermeasure, mm. 36-39, projects the strength of the dominant, negating the previous D-flat harmony (Example 9). Measures 40-43 provide a strong cadence V–IV–V–I in the key of F Major, resolving the fourth scale degree to the primary tone (♯).

One can feel the close is imminent, but Beethoven prolongs the primary tone (♯) much longer, and he concentrates on rhythmic devices. In mm. 44-46, the bass imitates the previous hypermeasure, F–Bb–C–F as shown in Example 10a. It could fit easily into four bars as shown in Example 10b, but Beethoven accelerates the pace and leaves three actual bars for four bars worth of music, reminding us of Example 5c. The left and right hands have their notes purposely misaligned, as shown in Example 10c. Beethoven repeats the passage, mm. 47-48, with a slight alteration in the left-hand at the end of the hypermeasure. (See Example 11a.⁴) Here, he finally allows the *Urlinie* to close in mm. 49-53 with a large emphasis on IV and the ♯–♮–♯ from the A-

⁴Also note the transfer of seventh in mm. 48-49 that allows the descant's ascent A–B-flat–C is reminiscent of m. 29 where a seventh transfer creates an ascending third F–G-flat–A-flat.

section. The normal pacing of the last measures could have been Example 11b, but Beethoven maintains as fast a pace as fast as possible, as shown in Example 11c. Harmonically he does reinforce the close with dominant-tonic and $\text{3-2-}\uparrow$ in the obligatory register, but this passage's swiftness leaves the listener breathless and ready for the slower pace of the succeeding trio.

The opening four bars of the March establish a four-bar (or eight-bar) hypermeter. While the dotted rhythms and wild leaps project a frantic, martial character, the fourth-progression in the bass drives the harmonies throughout the piece. The acceleration at the end of first phrase foreshadows the stronger accelerations in the B section. Each pitch creates a hypermetric downbeat and large-scale harmonic areas. Within this framework, Beethoven shifts rhythmic placement of harmonies to make dramatic gestures and control psychological time through harmonic pacing.

BIBLIOGRAPHY

Rothstein, William Nathan. *Phrase Rhythm in Tonal Music*. New York, N.Y.: Schirmer Books, 1989.

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Issues to pursue in more detail: Schnabel's rubato, esp accelerations at end of hypermeasures, most notably bottom of p. 1. List of rhythmic transformations. Goode's tone color in various harmonic passages. Schnabel edition, Schenker edition. Op. 101 has autograph copy!

William Kinderman in 1993 Brendel record jacket: "Few of Beethoven's pieces exerted such a strong spell on the Romantic composers as his A major sonata, op. 101, from 1816. Mendelssohn imitated it in his Op. 6 Sonata; Wagner found in its opening movement the ideal of his "infinite melody"; Schuman was captivated by its march-like second movement. Along with the cello sonata Op. 102 and the song cycle *An die ferne Geliebte*, the A major Sonata marks a major transition in Beethoven's style, pointing unmistakably to the unique synthesis achieved in works of his last decade. "

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Abstract

Beethoven's late works present formidable technical and interpretive challenges to the performer. On the surface of the B-section of the March from Op. 101, key relationships seem distant and irrational. The pacing nearly ceases at points and proceeds recklessly towards certain cadences. To help both pianists and listeners, this paper makes sense of this seemingly incoherent B-section by first examining the interaction of motives, voice-leading, and hypermetrical structure present in the A-section. The A-section presents relatively straight-forward voice-leading that could be set at a regular rhythmic pace, but instead, Beethoven created static and accelerated passages, emphasizing consistent linear progressions and deep-level scale degrees. These characteristics hold the answer to the design and perhaps the interpretation of the enigmatic B-section.

EXAMPLE 1: Compound Ternary Form of Op. 101/2

March				Trio				March	
: A	: :	B	: :	C	:	D	retransition		(da capo)
I → V	(III [#]) → VI	→ (bVI)	→ V → I						
m. 1	8	12	23	30	36	44	55	65	94

EXAMPLE 2: Voice-leading in the A-section

A: m. 1 m. 5 m. 8 A^o. m. 1 m. 5 m. 8 B^o. m. 12

FM: I V V V I V V I III[#]

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

EXAMPLE 3: Hypermeter in the Opening Phrase

(a) Hypothetical simplest setting

(b) with added elongation

(c) Actual setting with final acceleration

(a) Hypothetical simplest setting

(b) with added elongation

(c) Actual setting with final acceleration

EXAMPLE 4: Goal Harmonies as Hypermetric Downbeats

(a) Voice-leading graph

(b) Underlying progression and hypermeter

(c) Actual progression with applied dominants

(a) Voice-leading graph

(b) Underlying progression and hypermeter

(c) Actual progression with applied dominants

EXAMPLE 5: Passage from VI to \flat VI

The musical score for Example 5 consists of three parts: (a) Voice-leading graph, (b) Simplest setting, and (c) Actual setting with final acceleration. Part (a) shows a voice-leading graph with a bracket over measures 23 and 25, and a label [6-6-6] in the bass staff. Part (b) shows a simplest setting with a tempo marking $(\text{♩} = \text{o})$ and fingerings 1 2 3 4 1 and 1 2 3. Part (c) shows an actual setting with a tempo marking $(\text{♩} = \text{o})$ and fingerings 1 2 3 and 1. The score is written in G major and 3/4 time, with a key signature of one flat.

(a) Voice-leading graph

(b) Simplest setting

(c) Actual setting with final acceleration

EXAMPLE 6: Rhythmic Setting of Octave Scale

The musical score for Example 6 consists of four parts: (a) Voice-leading graph, (b) Normal pace, (c) Doubled harmonic pace, and (d) Actual pace with all harmonies. Part (a) shows a voice-leading graph with a bracket over measures 26 and 30, and a label [6-6-6] in the bass staff. Part (b) shows a normal pace with a tempo marking $(\text{♩} = \text{o})$ and fingerings 1 2 3 4 5? 6? 1. Part (c) shows a doubled harmonic pace with a tempo marking $(\text{♩} = \text{o})$ and fingerings 1 2 3 4 and 1. Part (d) shows an actual pace with all harmonies with a tempo marking $(\text{♩} = \text{o})$ and fingerings 1 2 3 4 and 1. The score is written in G major and 3/4 time, with a key signature of one flat.

(a) Voice-leading graph

(b) Normal pace

(c) Doubled harmonic pace

(d) Actual pace with all harmonies

EXAMPLE 7: Expansion of bVI Area

Handwritten musical score for Example 7, showing two parts: (a) Voice-leading graph and (b) Hypermeter with insertion. The score is in G minor (one flat) and 4/4 time. The tempo is marked $(\downarrow = 0)$. The key signature is b .

Part (a) Voice-leading graph: Shows the voice leading for the first system (measures 30-33) and the second system (measures 33-36). The first system is marked "4-pvg" and the second system is marked "3-pvg". The graph shows the movement of notes between the two systems, with a large 'X' indicating a specific voice leading path. The notes are: m.30 (G4, F4, E4, D4), m.31 (D4, C4, B3, A3), m.32 (A3, G3, F3, E3), m.33 (E3, D3, C3, B2), m.34 (B2, A2, G2, F2), m.35 (F2, E2, D2, C2), m.36 (C2, B1, A1, G1).

Part (b) Hypermeter with insertion: Shows the hypermeter for the first system (measures 30-33) and the second system (measures 33-36). The hypermeter is: 1 2 3 4 | 3 4 | 1. The notes are: m.30 (G4, F4, E4, D4), m.31 (D4, C4, B3, A3), m.32 (A3, G3, F3, E3), m.33 (E3, D3, C3, B2), m.34 (B2, A2, G2, F2), m.35 (F2, E2, D2, C2), m.36 (C2, B1, A1, G1).

(a) Voice-leading graph

(b) Hypermeter with insertion

EXAMPLE 8: Harmonies on Hypermetric Downbeats

Handwritten musical score for Example 8, showing a single system of music. The score is in G minor (one flat) and 4/4 time. The tempo is marked $(\downarrow = 0)$. The key signature is b .

The score shows the hypermetric downbeats and the corresponding harmonies. The hypermeter is: 1 2 3 4 | 3 4 | 1. The notes are: m.1 (G4, F4, E4, D4), m.4 (D4, C4, B3, A3), m.12 (A3, G3, F3, E3), m.19 (E3, D3, C3, B2), m.23 (B2, A2, G2, F2), m.26 (F2, E2, D2, C2), m.30 (C2, B1, A1, G1), m.36 (G1, F1, E1, D1), m.40 (D1, C1, B0, A0), m.44 (A0, G0, F0, E0).

The harmonies are: I ($\underline{V-III}$) P VI (bVI) V I

EXAMPLE 9: Hypermeter of Dominant Area

EXAMPLE 10: Accelerando before *Uralin* Closes

(a) Voice-leading graph

(b) Hypothetical setting with normal pacing

(c) Actual setting with faster pace and misaligned parts

EXAMPLE 11: Close of *Uralin* and Compression of Material

The musical score consists of two staves: a treble clef staff and a bass clef staff. The piece is in 4/4 time, with a tempo marking of $(\text{♩} = 0)$. The score is divided into three sections: (a) m. 49, (b) m. 50-52, and (c) m. 54. Section (a) features a voice-leading graph with Roman numerals I, (VI) , IV, V, and I. Fingerings are indicated with numbers 1-5. Section (b) shows a hypothetical setting with normal pacing, with fingerings 1, 2, 3, 4 and (2, 3, 4). Section (c) shows the actual setting with fast pacing, with fingerings 1, 2, 3, 4. Handwritten annotations include 'p' for piano, 'f' for forte, and 'B' for breath marks. A large bracket spans from m. 49 to m. 53.

(a) Voice-leading graph

(b) Hypothetical setting with normal pacing

(c) Actual setting with fast pacing