Third Prize

OVERALL STRUCTURE AND DESIGN IN A VARIATION FORM

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The final movement of Beethoven's Sonata in A major for violin and piano, Op. 30, No. 1, consists of a theme with six variations. The variation format of the movement invites a three-pronged analytical approach. First, we shall examine the theme itself. What features define its formal, harmonic, and melodic structures? Is it a completely self-contained entity, or are there open elements left to be resolved in the subsequent variations? Second, we shall investigate the relationship of each variation to the parent theme. What musical elements remain constant, and which ones change? Finally, we shall consider the set of variations as a whole. How do the relationships among the variations, and the order in which the variations are arranged, contribute to the design, direction, and drama of the movement?

THEME

The formal design of the theme (Figure 1) is straightforward: a double period with repetitions of its first and second halves. The first phrase occupies measures 1-4, and its harmonic foundation is the progression I-V7-I; measures 5-8 comprise the second phrase, whose underlying harmonic structure is I-ii-V6/4-5/3.[1] In these measures the violin plays the melodic line. The next eight measures repeat the first eight; here, however, the piano takes over the melody and the violin assumes an accompanying role. The third phrase, measures 17-20, prolongs and tonicizes the dominant harmony (that is, locally it is in the dominant key of E, but in relation to the theme as a whole it represents the progression V7/V-V); and the fourth phrase, measures 21-24, returns from V to I. These two phrases are repeated in measures 25-32; once again, the first statement of the phrases presents the melody in

the violin part, while the second statement transfers the melody to the piano.

Figure 1. Theme (mm. 1-32)

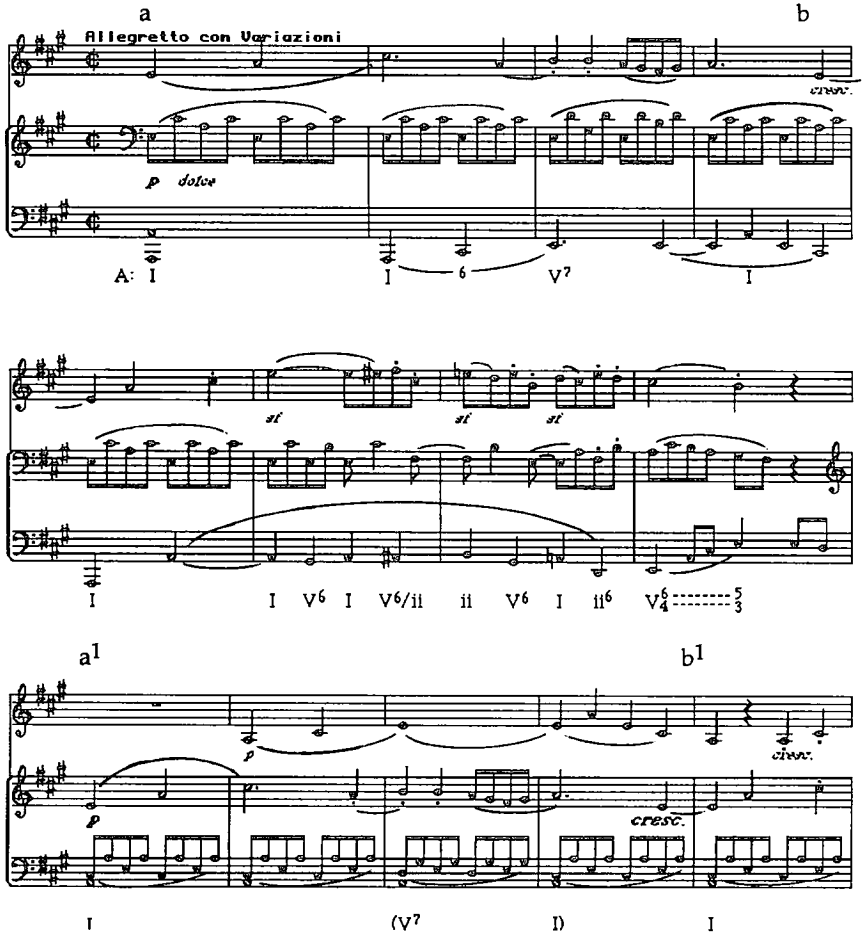


Figure 1. con't.

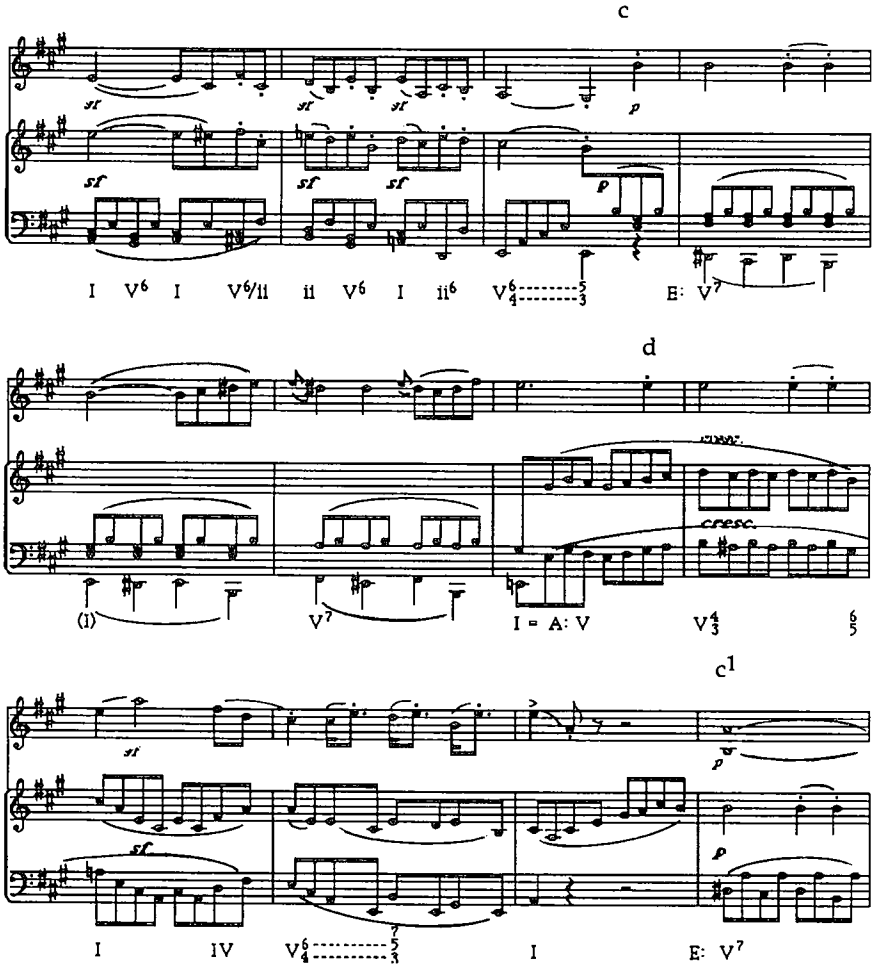
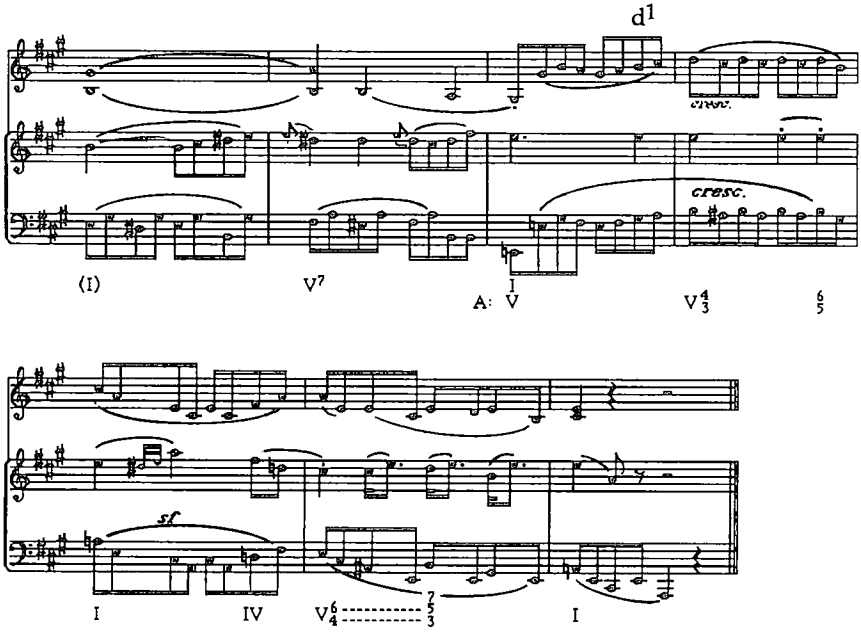


Figure 1. con't.

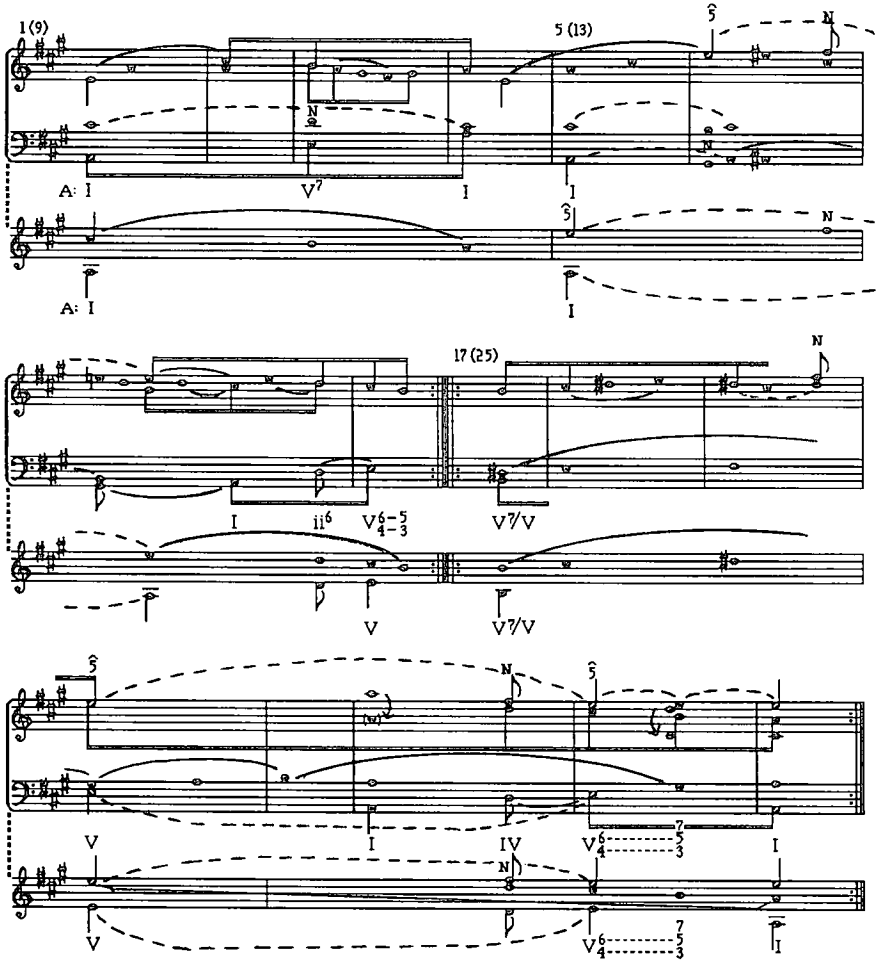


Let us now turn our attention to the melodic structure of the theme. As the graphic analysis of Figure 2 illustrates, the first phrase rapidly ascends, via an arpeggiated A-major triad, to the C-sharp of measure 2; the remaining measures of the phrase elaborate a stepwise descent from C-sharp to A. A similar arpeggiation opens the second phrase, but this time the ascent covers a full octave to the E of measure 6; the answering descent spans the fourth from E to B. (A neighboring F-sharp, its function symbolized as "N" on the graph, embellishes the E.) The third phrase recovers the high E by means of a stepwise ascent from B in measures 17-20, mirroring the descending line of measures 6-8; once again a neighboring F-sharp ornaments the E.

The events of these first three phrases point toward a quite specific conclusion in the fourth. The rising arpeggios of measures 1 and 5 are answered by falling scalewise lines in measures 2-4 and 6-8, respectively, leading us to expect a similar descending answer to the ascending line of measures 17-20. Furthermore, the second phrase

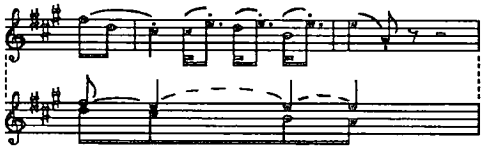
initiates a descent from E to A but interrupts it on B with a half cadence; just as the half cadence implies an eventual tonic cadence to complete the harmonic action, so does the interrupted melodic descent imply its later continuation to A to complete the melodic action.

Figure 2. Graphic Analysis of Theme



As we have already seen, the fourth phrase does indeed bring about the formal and harmonic closure of the theme. This phrase also incorporates the expected descent to A, but in the context of a compound melody (that is, a melody that implies more than one contrapuntal voice). Figure 3 shows the passage in question: the high E recurs in alternation with the tones of the descending line, on the weak part of the beat at first but on the downbeat of the final measure. We hear this E, in effect, as a sustained soprano tone against which an inner voice falls contrapuntally to the A. The E continues to ring in memory as the final soprano tone of the theme, an unstable tone (scale degree 5) in comparison with the A (1). The theme, then, remains melodically open-ended despite its closed harmonic and formal structure, and the variations, presumably, inherit the task of melodic closure.

Figure 3. Theme (mm. 22-24)



VARIATION I

The first variation is a *figural* variation (i.e., one constructed upon a characteristic figure, in this case the triplet motive that permeates the piano part). The variation retains the form of the theme, although here the repetitions are indicated by repeat signs rather than written out. The literal repetitions preclude the kind of exchange of melodic and accompanying roles that occur between the violin and piano in the theme, but this interplay still occurs on a smaller scale as the violin, though primarily an accompanying instrument in this variation, takes up the triplet figuration at the end of each phrase.

The harmonic structure is essentially the same as that of the theme, although measures 6, 7, 8, 13 and 14 exhibit changes of harmonic detail.[2] Figure 4, a harmonic comparison chart of the theme and the six variations, itemizes these changes.

Variation I also resembles the theme in its melodic structure. Although the violin concludes the fourth phrase with a downbeat A, approached stepwise from B, this does not achieve complete melodic

closure, for the line from E to A contains a gap between D and B (see Figure 5). (To be sure, the D, the seventh of V7, does resolve to the expected C-sharp, but in the piano part, after a voice exchange—B and D—between the soprano and tenor lines; the tenor line, however, does not continue to the A. Neither does the baritone register contain a complete E-to-A descent, for in this case there is a skip between E and C-sharp.)

VARIATION II

Variation II begins as an *ornamental* variation in which the violin presents an elaborated version of the theme melody, but gradually the violin's running eighth notes obscure the original melodic contours, and the variation takes on a figural character. One melodic feature that does remain constant is the final soprano E; the low A with which the violin part concludes is clearly the bass of an arpeggio whose soprano pitch is the downbeat E of measure 16.

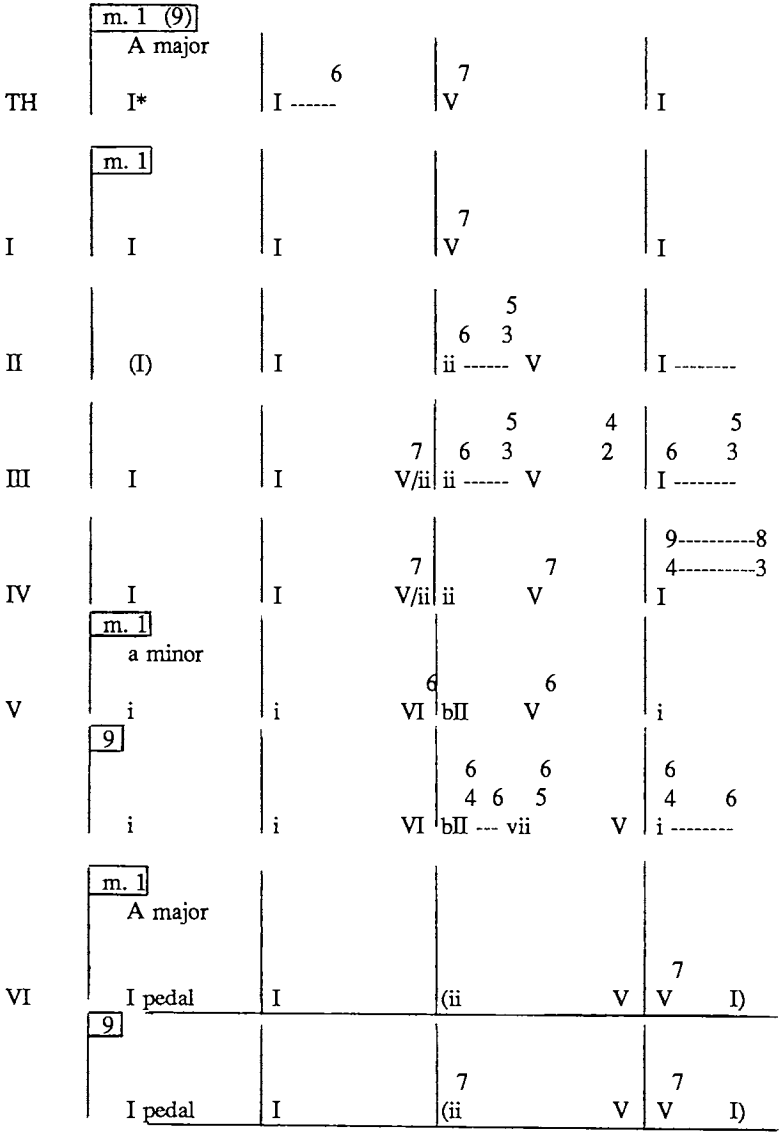
Like the first variation, the second retains the form of the theme. Once again the repeats are literal rather than reorchestrated. The violin and piano no longer trade melodic and accompanying functions, even on the small scale of Variation I; the piano does participate in the eighth-note figuration, but it is the violin that carries the melodic interest. The harmonic structure, too, remains the same. Measures 3, 6, 7, 8, and 14 vary the foreground harmonic detail somewhat; Figure 4 supplies the particulars of these changes.

VARIATION III

In the third variation, two variation principles combine. One is figuration; like Variation I, Variation III features a triplet motive. Here the triplet figure permeates the bass and also appears a few times in the violin part as an anacrusis to a new phrase. The other principle is *simplification*—the piano presents a simplified version of the original melody in the right-hand part.

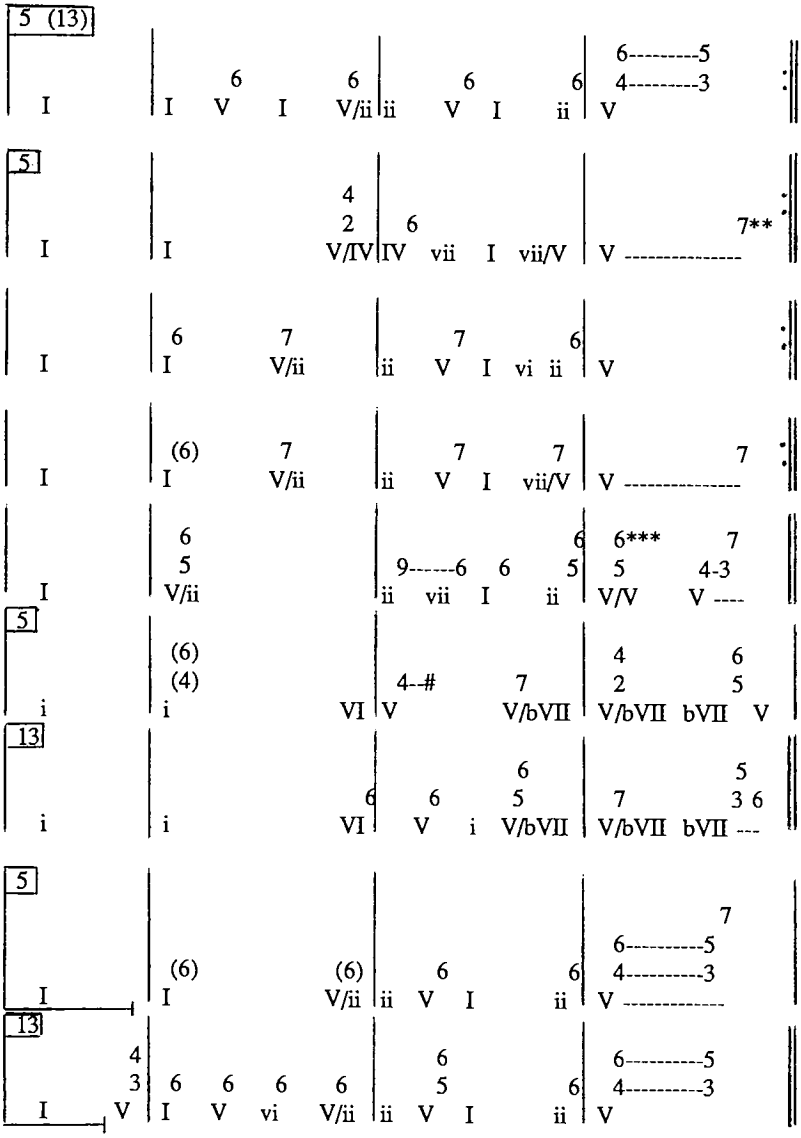
This melodic line ends with a more explicit closure to A than has yet occurred, but even here the high E is superimposed, albeit on an off-beat (see Figure 6). The E-D-C-sharp-B-A descent, moreover, is in the wrong register to resolve the dangling E of the theme satisfactorily (though it is in the right register with respect to the earlier phrases of the variation), for it is an octave too high.

Figure 4.



*A tonic pedal is added in mm. 9-13

Figure 4. con't.



**The 2nd ending omits the chord 7th ***The 2nd ending has V

Figure 4. con't.

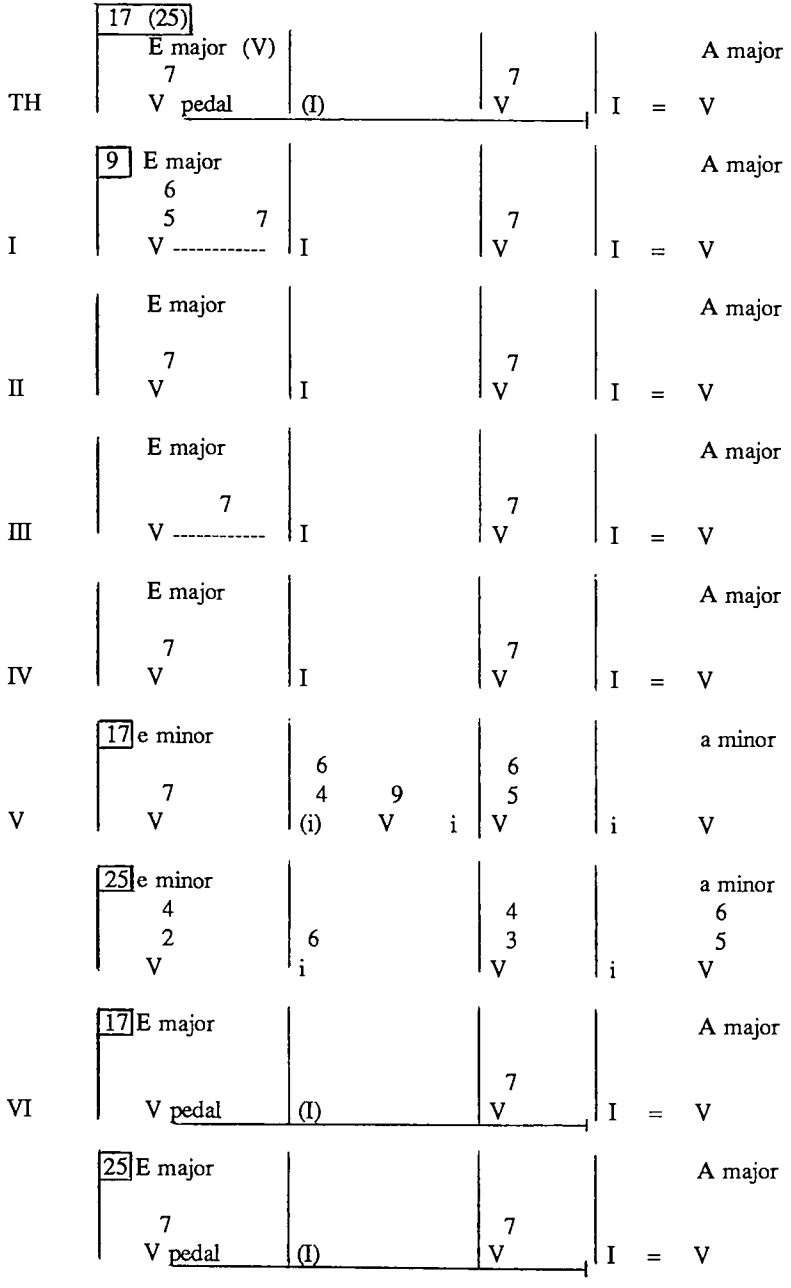


Figure 4. con't.

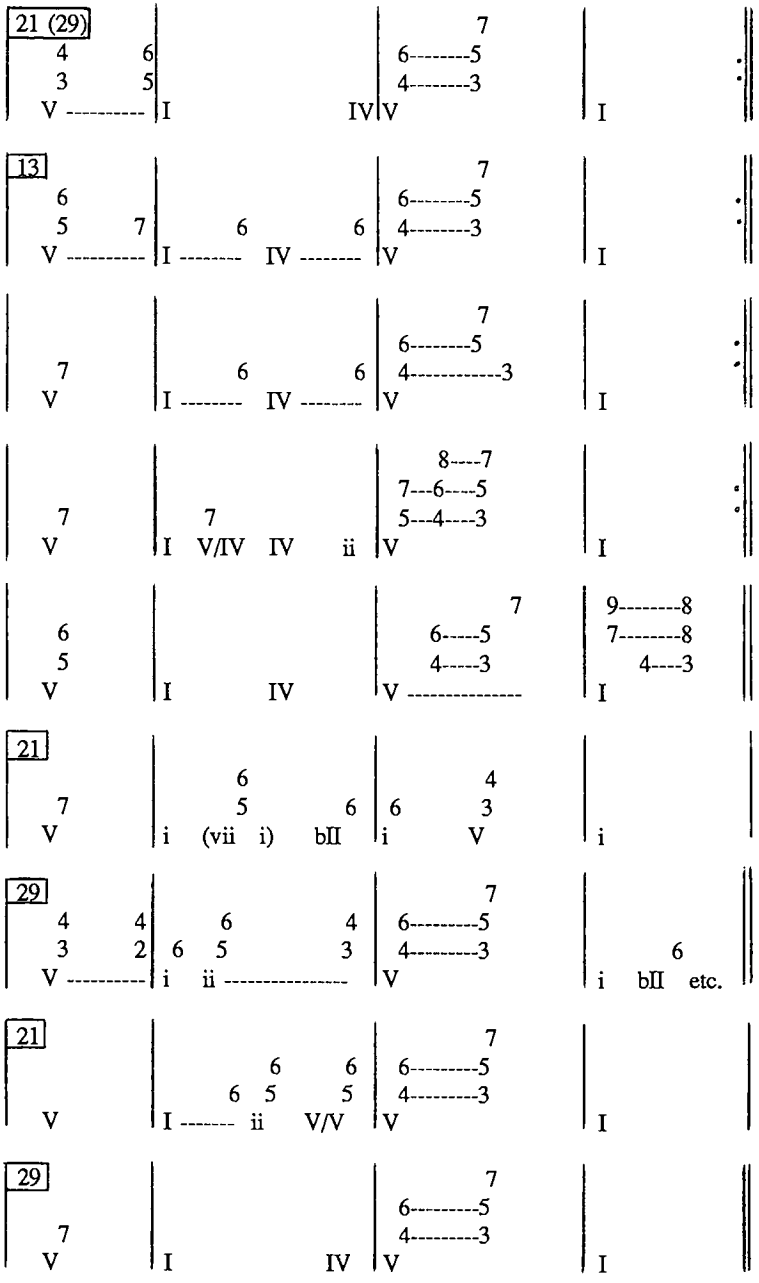


Figure 5. Variation I (mm. 15-16)

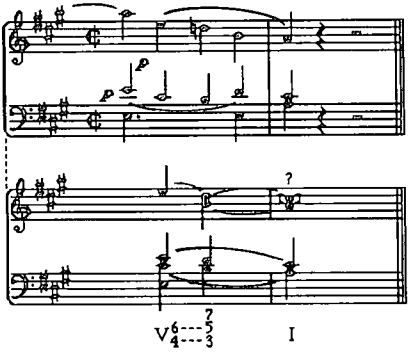
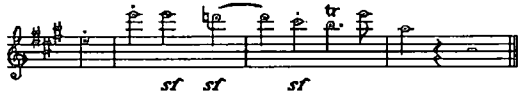


Figure 6. Variation III (mm. 14-16)



Measures 2, 3, 7 and 14 vary the chordal content of the theme slightly, but the structural harmonies remain unchanged (refer to Figure 4). The form is likewise consistent.

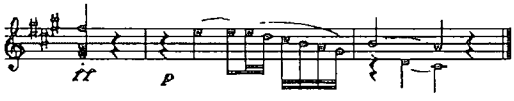
VARIATION IV

The fourth is another simplifying variation; it concentrates primarily on the harmonic aspect of the theme, employing a thicker chordal texture in the piano and multiple stops in the violin. The harmonic structure of the theme again remains basically unchanged, although the first two phrases of the variation place more emphasis on secondary-dominant chords (measures 2, 6, and measure 8 first ending; see Figure 4). Also characteristic of this variation are double suspensions at cadences: the final chords of the first, second (second ending), and last phrases are embellished with both 9-8 and 4-3 suspensions.

Variation IV preserves the double-period form of the theme. The repetitions of the first and second halves are literal, save that each half has, as in the preceding variations, a first and second ending.

The violin and piano share the melody (the violin takes the first half of each phrase, the piano the second half, recalling the melodic interchange of the theme). Unlike the theme and the first three variations, Variation IV achieves full melodic closure—a neighboring F-sharp in measure 14 prefaces a complete E-D-C-sharp-B-A descent, in which B and A appear on strong beats to bring about a satisfying rhythmic close (see Figure 7).

Figure 7. Variation IV (mm. 14-16)



VARIATION V

Variation V, the penultimate variation, is in the minor mode. The change of modal color creates a marked contrast with the preceding material, a contrast heightened by other facets of the variation.

With the exception of a few measures of inexact imitation between the piano and violin in Variation III, the texture up to this point has been homophonic. Variation V, however, is *contrapuntal,* featuring invertible counterpoint in two voices. In measures 1-8 the bass (piano left hand) states a minor version of the theme melody; the violin plays a soprano counterpoint. (The right-hand piano part is silent.) Then in measures 9-16 the piano repeats the melody of the first two phrases two octaves higher and transfers the counterpoint to the bass voice, while the violin adds a third voice. The melody returns to the bass in measures 17-24, and once again the violin offers a contrapuntal accompaniment; this time there is a fragmentary third voice in the right hand of the piano. The piano right hand restates the third- and fourth-phrase melody in measures 25-32, and the bass takes up the counterpoint two octaves lower; now the violin has the third voice, an elaboration of the piano right-hand part of measures 17-24.

The harmonic foundation of measures 1-32 is similar to that of the theme. Many measures, however, now exhibit foreground chord

changes, notably measures 2, 3, 6, 7, 10, 11, 14, 15, 22 and 23 (see Figure 4). There is also a structural change at the second-phrase cadence (measures 8 and 16): V/bVII-bVII replaces the theme's ii-V progression. (This foreshadows material to appear a little later, as do the bII chords of measures 3 and 11.)

Up to the cadence of measure 32, the fifth variation retains the form of the theme; it even shares with the theme the written-out repeats of the first and second halves of the double period, in which voices trade melodic and accompanying roles. At measure 32, however, immediately after the downbeat tonic cadence, a *sforzando* Neapolitan sixth chord (bII6) emphatically announces something new. This new material turns out to be a 23-measure transition to the last variation.

The harmonic basis of the transition is a progression from several dominant-preparation chords to the dominant. The bII of measure 32 progresses to g minor, bvii, in measure 37, via V7/bvii. The bvii moves in turn to iv by way of V6/5 of iv (measures 44-46); V6/5 follows in measure 48. The remaining measures of the transition prolong the dominant, with a D-sharp in measures 54-55 adding a suggestion of V/V.

The transition also effects a smooth rhythmic passage from the fifth variation to the sixth. The figure gives way to at measures 51-52; in performance, a slight *ritardando* allows this figure to slip into the triplet pattern in preparation for the 6/8 meter of Variation VI.[3]

VARIATION VI

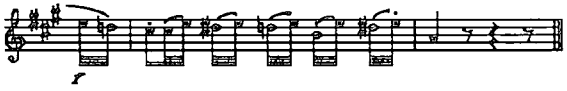
The final variation returns to the major mode. Its harmony, as Figure 4 illustrates, is closer to that of the theme than is the case in most of the foregoing variations.

Although 6/8 meter replaces the 2/2 of the theme and the first five variations, the melodic framework of Variation VI cleaves faithfully to that of the theme, for this is an ornamental variation in which first the piano, then the violin, presents an elaborated paraphrase of the original melody. As in the theme, the conclusion of the fourth phrase superimposes an unresolved E over the falling E-D-C-sharp-B-A melodic cadence (see Figure 8). The melodic exchange between instruments that characterizes the theme also typifies this variation.

The form is identical with that of the theme until after the cadence on the downbeat of measure 32. The piano carries its eighth-

note figuration through the cadential measure to lead into the coda, which occupies measures 33-86. We shall reserve discussion of the coda for the concluding portion of this analysis.

Figure 8. Variation VI (mm. 30-32)



CONCLUSION: THE MOVEMENT AS A WHOLE

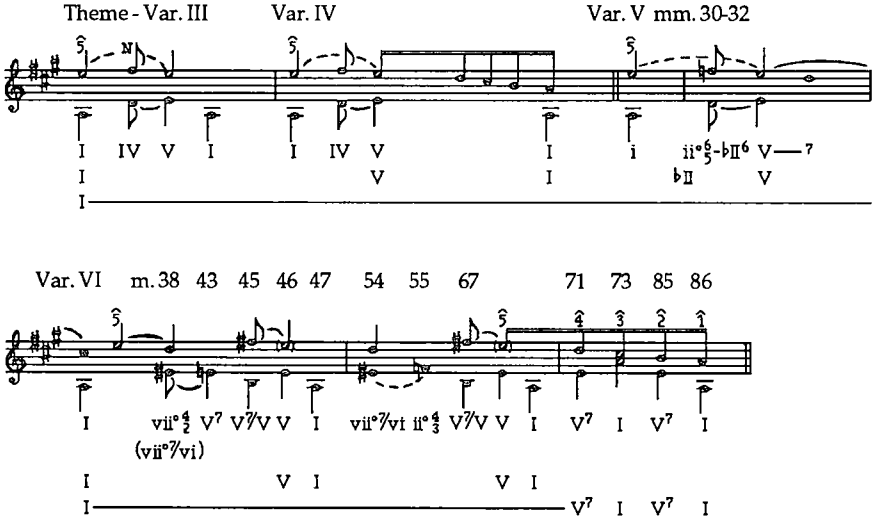
Although on the surface the movement falls into seven sections (i.e., the theme and the six variations), the motivic, melodic, and harmonic relationships among these sections articulate the movement rather differently. For example, the theme and Variations I through IV have a number of traits in common. All are in the major mode, and their harmonic frameworks are essentially the same. Their texture, with the exception of a few measures of Variation III, is homophonic. They share the same double-period form, with no extensions or omissions. The four variations differ from the theme but resemble each other in that the repetitions of their first and second halves are largely exact rather than varied, and also in that the exchange of melodic and accompanying functions occurs, if at all, only at the subphrase level. Triplet figuration links Variations I and III.

Between Variations IV and V, on the other hand, a marked division occurs. For one thing, the melodic cadence of Variation IV is conclusive; for the first time in the movement, the high E falls stepwise to the expected A. A slight *ritardando* enhances the effect of this cadence in performance; slowing down for the final cadences of the first three variations, on the other hand, spoils the continuity of the movement and creates a choppy effect. In the second place, Variation V contrasts sharply with what has gone before: its mode is minor; its harmonies differ not only in superficial but also in certain structural respects from those of the theme; and its texture is contrapuntal rather than homophonic.

Variation V reintroduces the melodic high E, prolongs it, and embellishes it with a neighboring F-natural. The latter is the soprano voice of the Neapolitan (bII) harmony that inaugurates the transitional extension following the fourth-phrase cadence; hence it

occupies an extremely prominent position—in fact, it is the melodic climax of the movement. (Figure 9 summarizes.) The melody is now poised expectantly, as it were, on the brink of a second and definitive stepwise descent to the tonic A.

Figure 9. Graphic Analysis of the Movement as a Whole.



The transition welds the fifth and sixth variations into a single structural unit; despite the contrast between them, they are melodically and harmonically inseparable. Variation VI, however, exercises a function quite distinct from that of Variation V. Variation V provides contrast; the final variation represents return and synopsis.

Variation VI is once again in the major mode, and it is like the theme in its melodic, harmonic, and formal structure. Its 6/8 meter recalls the two triplet variations (I and III), while its legato melody reconciles these two staccato variations with the more *cantabile* theme and second and fifth variations.

The sixth variation reaches its formal and harmonic conclusion with the cadence of measure 32, but the high E, the reader will remember, is still unresolved. The coda brings about the final resolution of this melodic tension. In measure 38 the melody falls from E to D,

where it remains for six measures; this D is supported by the leading-tone and dominant harmonies (Figure 9). Here, the listener thinks, is surely the beginning of the end! But this D is only a feint; the melody rises back to E, then to a neighboring F-sharp, and falls once again to E. (The violin part moves by skip to an inner-voice A, but the piano states the E in measure 47.) A similar gesture occupies measures 54-69; here the D is harmonized a little differently, however, with vii07 of vi-ii04/3. Then at last in measures 72-73 the line really does begin to descend: D appears as the seventh of V7 in measure 72 and promptly resolves to C-sharp (supported by the tonic triad) in measure 73. Repetitions of this progression fill the next eleven measures. Finally, in the last two measures, C-sharp falls to B and then to A.

The design of the movement, then, is a two-part rather than a seven-part one. Relationships among the theme and the first four variations link them into a unit, and the first definitive melodic cadence articulates the end of this section. Variations V and VI, together with the coda, comprise the second formal unit. The melodic structure of the second section parallels that of the first, but whereas the first section prolongs the high E extensively and resolves it hastily, the second section works out the resolution of the E more deliberately, thereby balancing the movement. The melodic tension created by the E is a primary source of musical momentum in this work, and its resolution both delineates form and serves as the dramatic denouement.

NOTES

[1]The notation "V6/4-5/3" signifies the motion from a cadential 6/4 chord to the dominant triad. It is used in preference to the notation "I6/4-V" because although the cadential 6/4 chord contains the tones of the tonic triad, it does *not* exercise a tonic function but acts instead as an appoggiatura to the dominant harmony.

[2]Note that the measure numbers in the second half of the variation do not correspond to those of the theme; because the variation employs repeat signs instead of written-out repeats as in the theme, m. 9 of variation I corresponds to m. 17 or m. 25 of the theme and so on.

[3]One recorded performance that illustrates this "metric-modulation" technique is that by Arthur Grumiaux and Clara Haskil (*Beethoven: Sämtliche Sonaten für Klavier und Violine;* Phillips 6733 001).