Inciting Transformational Insights

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> If the doors of perception were cleansed every
> thing would appear to man as it is, infinite.
> For man has closed himself up, till he sees all
> things thro' narrow chinks of his cavern.
>
> William Blake, *The Marriage of Heaven and Hell*, Plate 14

It is interesting, if in a paradoxical sense, to reflect on the fact that the act of interpreting a work of art more often positions the interpreter than it does the object being interpreted. This situation seems always to obtain when the allure of a methodological approach becomes intoxicating, for then, as Fredric Jameson claims, "all conscious thought takes place within the limits of [the] given model and is in that sense determined by it."[1]

I am not about to offer a diatribe against systems of analysis, for such a stance would trivialize their continuing role in the further development and maturation of music theory as a credible activity. Instead, I mean only to begin this study by endorsing a view which comes to our discipline via the field of linguistic research. To paraphrase Jameson, models can become blinders. In the worst-case scenario, "the methodological starting point does more than simply reveal, it actually creates, the object of study."[2] That a plurality of approaches to any given composition exists underscores an all-too-often neglected reality: the music, and not its analysis, represents the object of study. After freeing ourselves from the constraints of a particular method of analysis, compositions—

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[1]Fredric Jameson, *The Prison-House of Language: A Critical Account of Structuralism and Russian Formalism* (Princeton: Princeton University Press, 1972), 101.

[2]Ibid.,14.

like novels—begin to sponsor multiple readings, and it might even be this that assures music its stature as a vital art form.

If our understanding, or perception, of a composition is influenced by many factors—as I believe it to be—then it seems unreasonable to demand of any one analytical system a detailed account of every feature that a work has to offer.[3] In what follows I will dramatize the point that situations exist whereby the adoption of an analytical strategy that simultaneously engages more than one system of analysis yields vivid results. The centerpiece of the study is an analysis of Beethoven's *Waldstein* sonata, in which I make use of analytical techniques from Heinrich Schenker and David Lewin. The path to the *Waldstein* must, however, be circuitous, for first I need to discuss aspects of Lewin's transformational networks in some detail. This digression will enable me to demonstrate, with reference to the *Waldstein*, that rich intra-movement relationships can be made explicit if we employ a hybrid analytical model derived from the combination of Lewin's fundamental-bass and *Klang* transformational networks—relationships that other analytical approaches, by their nature, cannot be expected to reveal.

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Roland Barthes's decree that "those who fail to reread are obliged to read the same story everywhere,"[4] seems not to have been lost on David Lewin, whose 1992 article "Some Notes on Analyzing Wagner: The *Ring* and *Parsifal*," turns back to an analysis of two excerpts from *Das Rheingold* that appeared in his 1987 book *Generalized Musical Intervals and Transformations*.[5] In formalizing the analyses of these ex-

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[3]For example, an analytical approach that emphasizes synchronicity is not apt to focus on re-contextualizations within a piece, whereas an accretive method might.

[4]Roland Barthes, *S/Z: An Essay*, translated and edited by Richard Miller (New York: Hill and Wang, 1974), 16.

[5]See David Lewin, "Some Notes on Analyzing Wagner: The *Ring* and *Parsifal*," *19th-Century Music* XVI/1 (Summer, 1992), 49-58; and

cerpts—the Tarnhelm progression and the modulating portion of the Valhalla theme—Lewin develops a transformational network that he identifies as a *Klang*.[6] The later publication confronts these methodological problems encountered in the earlier reading: (1) "there is no point in asserting 'a strong [functional] relationship' [between two passages] without being able to specify just what that relationship is"; (2) the analysis "does not lead us deeper into the music [that it represents] or into other pertinent music, or into dramatic ideas about the *Ring*"; (3) the analysis "is technically malformed by the criteria of *GMIT*."[7]

These wide-ranging concerns become the point of departure for Lewin in a revision of his earlier thoughts on the excerpts from *Das Rheingold*.[8] Perhaps what is more significant, however, is that in the process, Lewin clarifies the definition of *Klang* transformational networks and reasserts their value as analytical tools.

In *GMIT*, *Klang* transformational networks are offered as more sophisticated (or next-generational) systems, improving upon a type of network introduced in the preceding chapter of the book. The earlier network had been formed as a means of comparing the opening measures from the Minuet of Beethoven's *Symphony No. 1 in C Major* with the initial bars of the introduction to the first movement.[9] My Figures 1 and 2 (below) reproduce Lewin's Figures 7.8 and 7.9, respectively; in Figure 1, the beginnings of each movement are aligned so as to reveal the near-identity of their tonal design.

Generalized Musical Intervals and Transformations (New Haven: Yale University Press, 1987), especially Chapter 8, pp. 175-192 (henceforth "Some Notes," and *GMIT*, respectively).

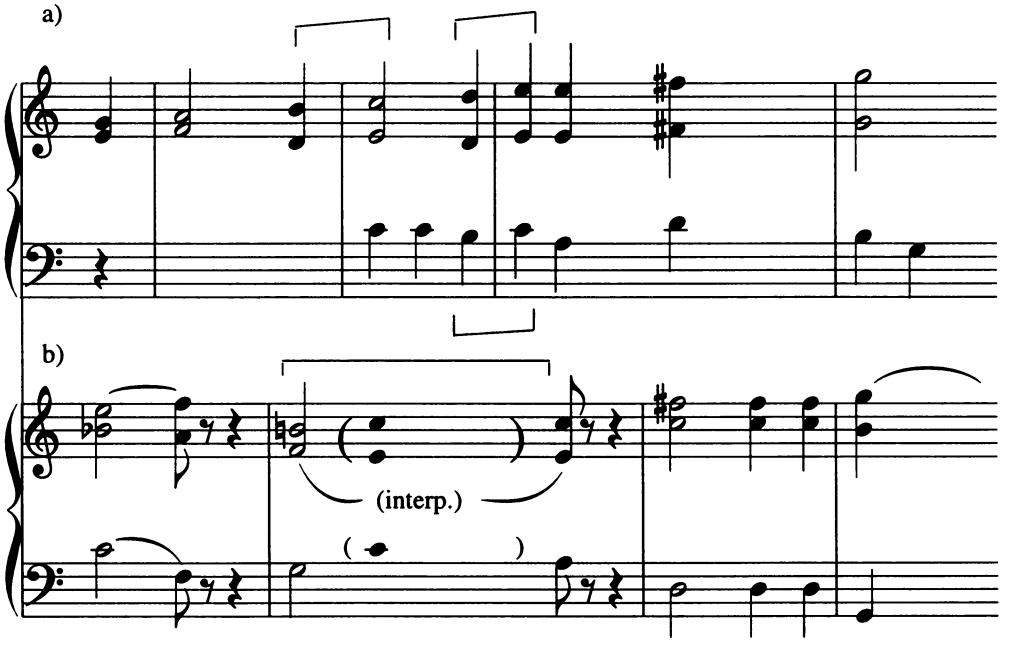
[6]*GMIT*, 178.

[7]Lewin, "Some Notes," 49-50.

[8]Lewin also demonstrates that the network relating Acts I and III of *Parsifal* is in many ways similar to the revised *Ring* network, yet each serves a different rhetorical purpose in the context of its own opera (see "Some Notes," especially p. 58).

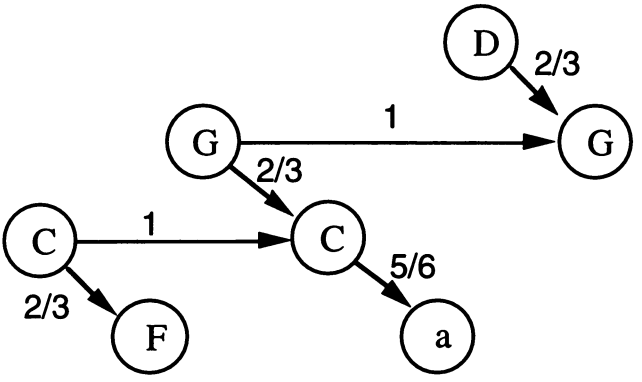
[9]*GMIT*, 169-178.

Figure 1. David Lewin's Figure 7.8, from *GMIT*



In Figure 2, the same measures are represented by "a common network [that governs] the progression of roots."[10]

Figure 2. David Lewin's Figure 7.9, from *GMIT*



Lewin posits that the network embraces a long-standing tradition, namely, that of fundamental-bass theory—a tradition that has its origins in the writings of Jean-Philippe Rameau.[11] Moreover, in making a vivid connection between the Minuet and the *adagio* introduction, Lewin has satisfied the first and the second of his methodological injunctions as stated above, for the network does lay bare a strong relationship between two passages, and thus "takes us deeper into the music."

But while the fundamental-bass network is analytically revealing in some respects, it is misleading in others. Figure 3 isolates the main problem with respect to its application in the Beethoven example.

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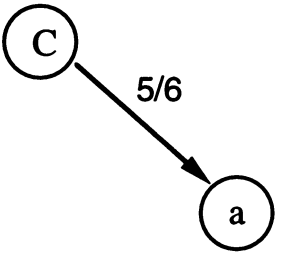
[10]*GMIT*, 169-170.

[11]Rameau's system is inherently generational. Each element in the network is defined in terms of its relationship to a unique and fixed fundamental, herein troped by Lewin so as to represent not merely scale degree $\hat{1}$, but, indeed, the complete tonic chord.

Figure 3. A modal problem in Lewin's fundamental-bass network



An operation leading from node Ⓒ to node ⓐ is represented by the ratio 5/6. But if we follow the letter of the law, the operation—a transposition in the usual sense of the term—would necessarily conflict with the actual musical events, for by their very nature fundamental-bass networks, being generational, are incapable of reflecting mode change; thus the operation outlined in Figure 3 maps C major onto A *major*, rather than A *minor*—the true sonority that arrives in both passages.[12] Lewin's synopsis of the problem is characteristically eloquent: "thus, when we pass from the C-node to the A-node . . . we are really applying some transformation *other* than the harmonic-transposition-by-(5/6), some transformation which is more than a synonym or isomorphic image for that interval."[13]

It is clear that a purely mathematical formalization cannot account for the musical issue of mode change, and in an attempt to compensate for this problem, Lewin offers a second type of network, one that appropriates theoretical concepts proposed by Hugo Riemann. In this second network, harmonic transposition is replaced by operations that derive from Riemann's function theory; the conceptual space for the new network is given the name *Klang*—*Klang* being defined as "an ordered pair (p, sign), where p is a pitch class and sign

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[12]*GMIT*, 175.
[13]*GMIT*, 175.

takes on the value '+' and '-' for major and minor respectively."[14]

An attractive aspect of *Klang* transformational networks is that their operations can be variously defined by the user. The theorist is thereby enjoined to assume an active role in the analytical process. By contrast, the nature of operations in fundamental-bass networks is predetermined, and as a consequence analysis that employs only fundamental-bass networks is bound to be more passive than any that employs *Klang* networks. Moreover, the fundamental-bass network uses the overtone series as its measure, and the specific relationship between two members of the network invokes their relative position within this series—hence the use of ratios to denote the operations of the network. These considerations, in turn, restrict what a fundamental-bass network can reveal.[15]

A primary aesthetic of *Klang* networks must be elucidated, for through it we come to understand that Lewin's *Klänge* swerve radically from both Riemann's and Rameau's theories. *Klang* networks reflect the kinetic nature of their operations, whereas neither Riemann's function theory nor Rameau's conception of the fundamental bass makes explicit the issue of motion.[16] As soon as an operation has been performed on one of Lewin's *Klänge*, that *Klang* forfeits its privileged status, and becomes a functional event in the world of a "new" host *Klang*. In other words, the initial *Klang* has

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[14]Though Lewin's typology (p, sign) may at first glance appear somewhat antiquated, upon reflection it proves to be perfectly logical, for it focuses attention on each element of the *Klang*'s component parts—its position in the total chromatic and its modal quality—in a very direct way. Further, the use of "+" and "-" to denote "major" and "minor" avoids any possible confusion with symbols that mark other functions. For instance, were we to employ "M" in place of "+" to represent "major," a potential conflict would exist, for "M" in this analytical system indicates a specific transformation by which a *Klang* is transformed so as to become the functional mediant of a new host.

[15]The operative word here is "restrict," for as we shall see, fundamental-bass networks are by no means superfluous. In fact, fundamental-bass networks prove to be well-suited for the tracking of untransformed events as they relate to the composition's home key.

[16]*GMIT*, 177.

nothing at all to do with the generation of the new *Klang*—rather, the initial *Klang* is "transformed" by the contextual demands of the newly-privileged host. In this way *Klang* transformational networks, among other things, neatly formalize the compositional principle of tonicization.[17]

Although subtle, the preceding argument is anything but trivial. The prioritization of the tonic is a central Credo in tonal music, and if Lewin's revision does not seek to replace this belief system, at the very least it tacitly directs us to question many of its time-honored principles. Consider, for instance, the labeling system favored by Schenker as a means of projecting his notion of *Stufen*.[18] *Stufen* theory underscores a synecdochical relationship that accounts for each foreground or near-foreground event ("part") in the context of the omnipotent tonic ("whole").[19] But part-to-whole relationships can compromise the immediacy of an event. Figure 4 will illustrate.

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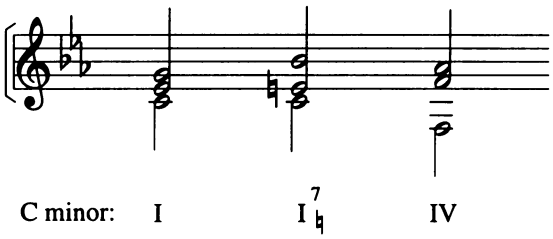
[17]Implicit here is the fact that *Klang* networks are extremely adept at accounting for surface-level relationships.

[18]See Heinrich Schenker, *Harmony*, edited and annotated by Oswald Jonas, and translated by Elisabeth Mann Borgese (Chicago: The University of Chicago Press, 1954). *Stufen* theory is a fundamental aspect of Schenker's entire outlook on harmony, and, hence, its discussion occupies a great deal of the text. In relation to what follows, however, I direct the reader to §140 (and especially to Schenker's Examples 230 and 232).

[19]This is, of course, a gross oversimplification of a complex issue, one that involves the interaction of various levels (i.e., foreground, middleground and background) in the musical frame. Further, the point that follows is not intended to be a global criticism of Schenker's theories; rather, by it I mean only to show that, like any methodological approach, this one cannot possibly model everything. For an insightful account of Schenker's thoughts on modulation, see Carl Schachter, "Analysis By Key: Another Look At Modulation," *Music Analysis* 6:3 (1987), 289-318.

Figure 4. A labeling system sympathetic to Schenker's notion of *Stufen*



In resisting the concept of secondary dominant sonorities, the typology I—I$^{7}_{\flat}$—IV does little to reflect the kinetic quality of the progression. The second sonority in Figure 4 has been designated a tonic harmony—though in a distorted form. The designation seems at odds with the idea of progression: that is to say, the forward motion of the music is not *explicitly* reflected in the symbol affixed to the chord.

Conflicts between symbol and function cannot exist in the world of *Klänge*. A Lewinian reading of the progression in Figure 4 is modeled as follows: (C,-) PD = (F,-).[20] The equation is read "the *Klang* (C,-) is taken into its parallel mode (P) and becomes the dominant (D) of (F,-)." The (C,-) *Klang* has, in every sense, been transformed so as to represent a functional event with respect to the later (F,-) *Klang*. This relationship could not have been represented by a fundamental-bass network, for, as we have learned, such networks cannot account for the necessary conversion of the minor mode of the initial *Klang* into a major, and functional dominant, sonority.

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[20]The possibility of performing compound operations on a *Klang* is only briefly alluded to in Chapter 8 of *GMIT* (p. 175). In "Some Notes," however, compound operations are shown to be salient events, for they are given analytical contexts. To me this represents one of the most intriguing revisions of Lewin's earlier work, as it attests to the dynamic nature of *Klang* operators. In the article, Lewin also simplifies the actual labeling of operations. My use of PD replaces the more cumbersome PARDOM that likely would have appeared in *GMIT*.

Figure 5. A Comparison of Two Networks from David Lewin's *GMIT*

(a)

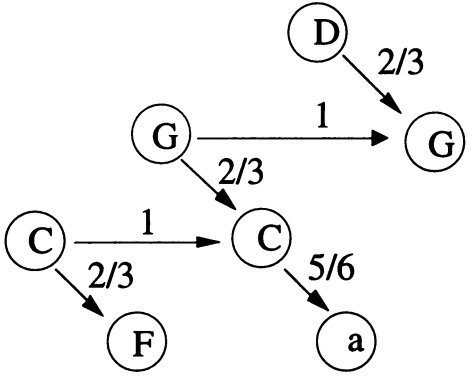

FIGURE 7.9

(b)

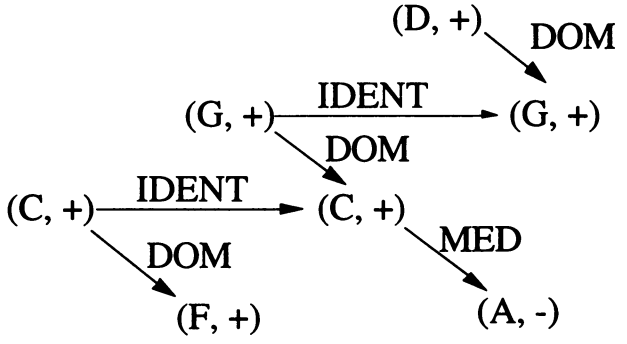

FIGURE 8.1

Figure 5 juxtaposes Lewin's Figures 7.9 and 8.1, and thereby facilitates comparison of fundamental-bass and *Klang* transformational networks as they apply to the earlier-cited passages from the Beethoven symphony.

Before proceeding, one thing must be made perfectly clear: my intention in this rather lengthy summary of Lewin's argument has not been to goad the reader into embracing one network at the expense of the other. Were this the case, I would be guilty of committing the very offense that I warned against at the outset of the paper, specifically, of overvaluing a single analytical approach at the expense of another. The *Klang* transformational network seems preferable with regard to the particular passages from Beethoven's First Symphony, for it is the more successful on at least three counts: in accurately representing the music; in pointing to latent relationships between two passages; and in taking us deeper into the symphony as a whole. But though the *Klang* network is highly suggestive in the present context, in other contexts the reverse might obtain, in which case a fundamental-bass network would provide the more relevant information.[21] In point of fact, there is nothing to preclude adopting an approach based on a combination of the two networks.

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In the remainder of this paper I intend to pursue the interaction of *Klang* and fundamental-bass transformational networks by examining tonal events that are found in the first movement of Beethoven's *Piano Sonata Op. 53 in C Major*

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[21]Much of the attraction of this specific *Klang* network is linked to the fact that the music it seeks to represent is saturated with foreground tonicizations—especially in the case of the *adagio* introduction.

Figure 6. Beethoven, Op. 53/I, mm. 1-13, Schenkerian Reductions

a)

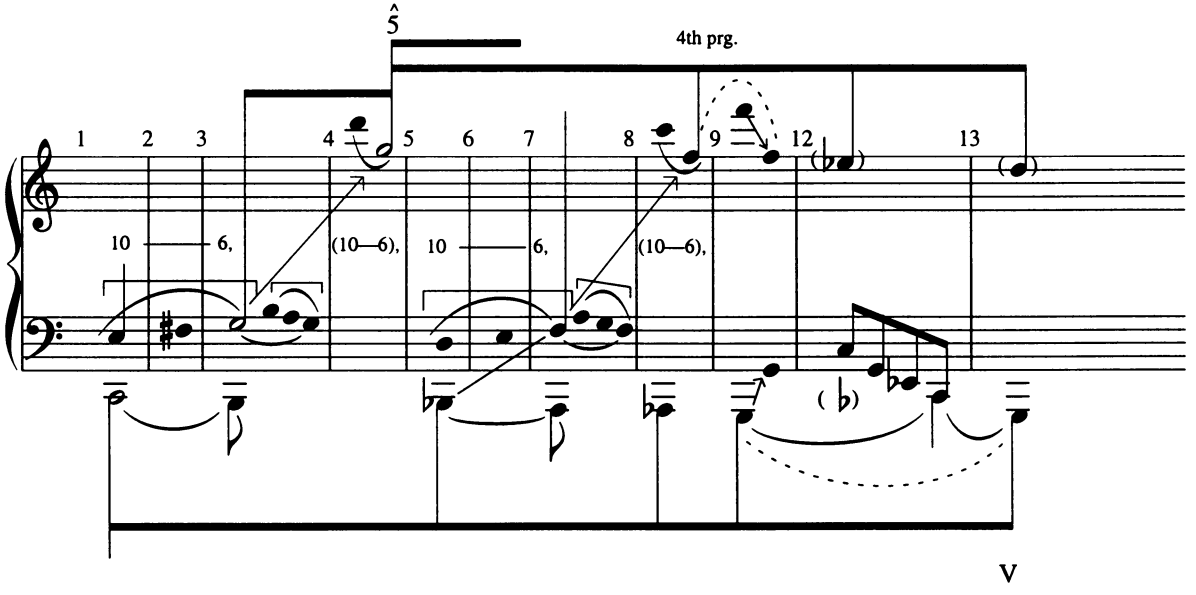
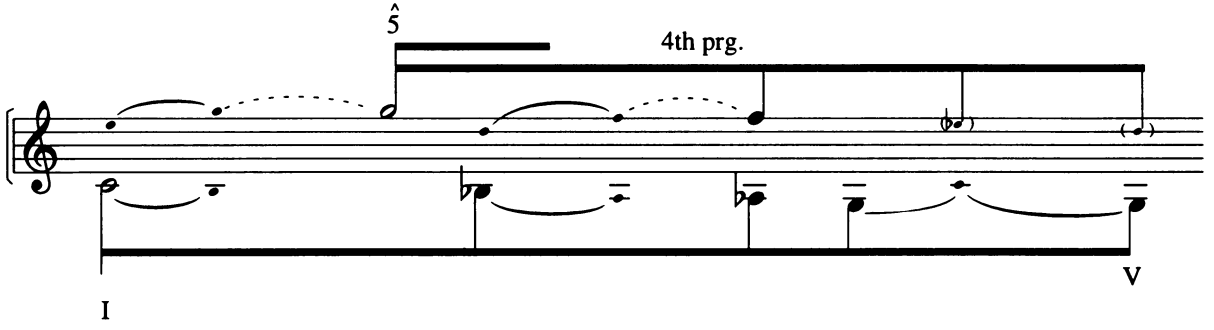


Figure 6 (continued). Beethoven, Op. 53/I, mm. 1-13, Schenkerian Reductions

b)



(*Waldstein*).[22] My purpose will be to demonstrate that musical justification exists for the construction of a "hybrid" network-type, one that appropriates aspects of *Klang* and of fundamental-bass networks.[23]

Figure 6 presents foreground and middleground Schenkerian reductions of the opening 13-measure sentence of the *Waldstein*.

The motion from I to V encompasses a chromatically-descending bass line. The outer voices, working in tandem, begin as a 10-6 linear intervallic pattern initiating the upper-voice 4th-progression that leads from the head-tone G ($\hat{5}$) in m. 4 to D in m. 13.[24]

The reading is convincing, for it neatly organizes a multitude of events and presents them within the context of the omnipotent tonic. But nothing is got for nothing, and the analyses in Figure 6 suppress the rich interaction between localized tonics—a microcosmic presentation of the tonal palette

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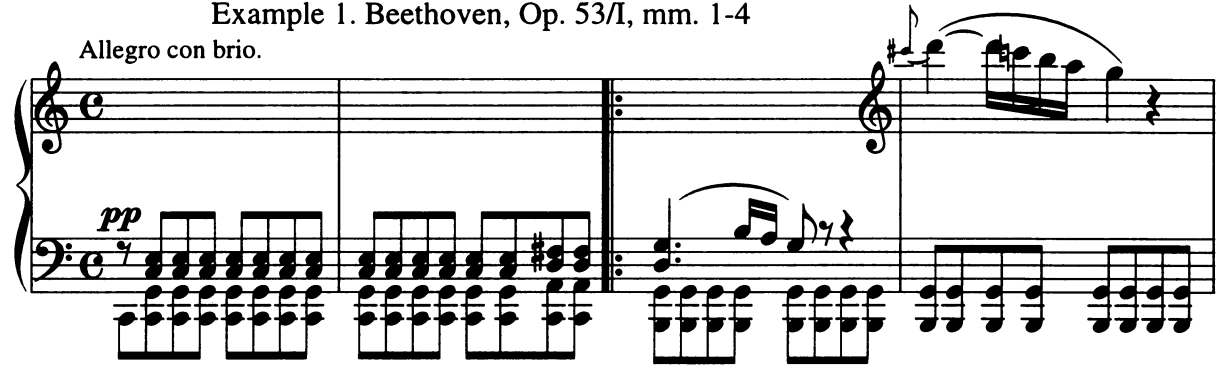
[22]In "Transformational techniques in atonal and other music theories," (*Perspectives of New Music* 21 (1982-83), 312-371), David Lewin speaks briefly about the opening 14 measures of the *Waldstein* Sonata (see pp. 329-333). Lewin's reference to the manner in which the C sonority at the outset of the first movement is transformed so as to "become" the dominant of the F sonority in measures 7-8, and how this same F sonority, in turn, "becomes" the subdominant of C in m. 14, has much in common with my hearing of the passage. This, however, represents the extent of Lewin's pursuit of issues related to the *Waldstein* in that article.

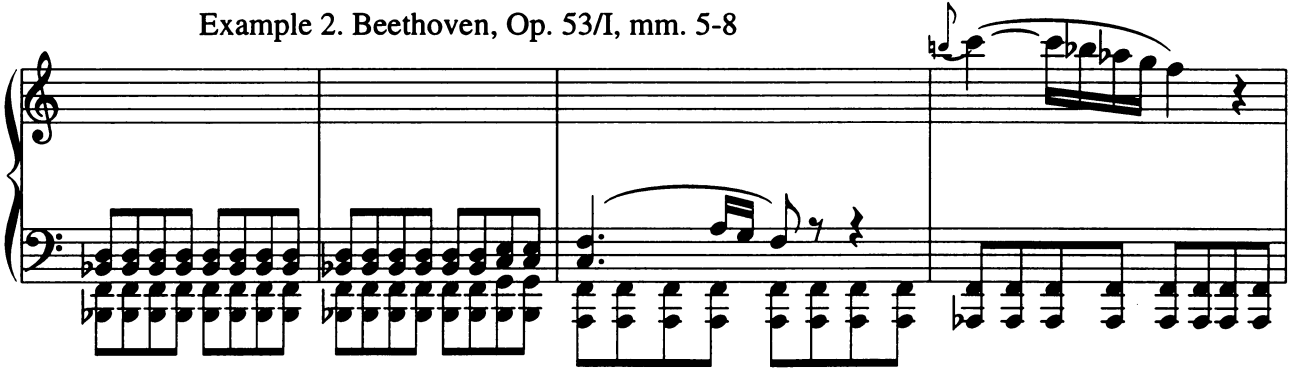
[23]The central premise behind this investigation is that much is to be gained by viewing the movement from several different angles. A like motif served as the point of departure for Charles Smith with respect to the second movement of the *Waldstein* —but towards decidedly different ends—in his "The functional extravagance of chromatic chords," *Music Theory Spectrum* 8 (1986), 94-139.

[24]A similar foreground interpretation of the passage in question is provided by David Beach in "On analysis, Beethoven, and extravagance: a response to Charles J. Smith," *Music Theory Spectrum* 9 (1987): 173-185. See also Charles Smith, "A rejoinder to David Beach," *Music Theory Spectrum* 9 (1987), 186-194.

Example 1. Beethoven, Op. 53/I, mm. 1-4



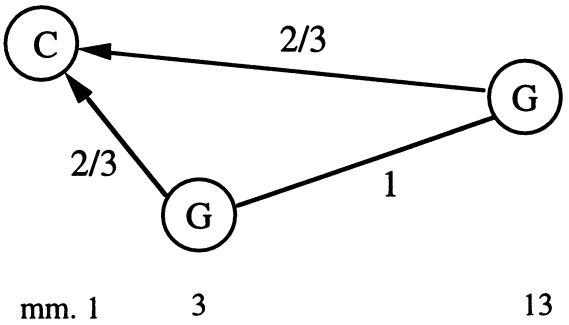
Example 2. Beethoven, Op. 53/I, mm. 5-8



from which Beethoven will paint the complete movement.[25] It is precisely this aspect of the passage that a transformational network can elucidate.

The opening four measures of the sonata are given in E˘ample 1. Comprised of a tonic and a dominant sonority,[26] these four bars anticipate the underlying harmonic progression of mm. 1-13. A fundamental-bass network that reflects this relationship is presented in Figure 7:

Figure 7. Beethoven, Op. 53/I, mm. 1-13: fundamental-bass network



A problem arises, however, when we try to account for mm. 5-8 within the context of what has already transpired. Were we to use the same rationale as we did in interpreting mm. 1-4, mm. 5-8 would be read as prolonging B♭ major, with a motion from I to V^6 in that key (see the music of the second

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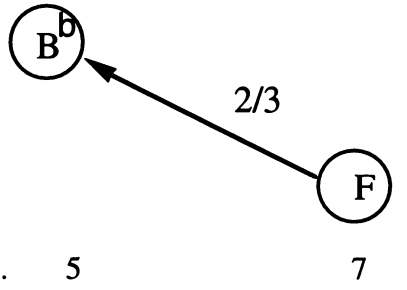
[25]In Chapter 3 of *Playing With Signs: A Semiotic Interpretation of Classical Music* (Princeton: Princeton University Press, 1991), Victor Kofi Agawu discusses characteristics common to beginnings, middles, and ends of phrases, sections, and even complete works. Agawu endorses Dahlhaus's view that the first sentence (mm. 1-13) of the *Waldstein* clearly represents an initiating passages. Dahlhaus makes the point that the specifics of the passage "would be out of place" elsewhere in the movement, and "its effect as a beginning is compelling and foreword-looking." (See Carl Dahlhaus, "Harmony," *The New Grove Dictionary of Music and Musicians*, as cited in Agawu, p. 56, note 7.)

[26]That is to say, in the key of C major G_3^6 is a dominant sonority by definition; of course, it functions here only as a voice-leading expansion of the initial tonic harmony.

4 measures of the movement in Example 2 (see page 15) and the fundamental-bass network that interprets them in Figure 8):

Figure 8. Beethoven, Op. 53/I, mm. 1-13:
fundamental-bass network



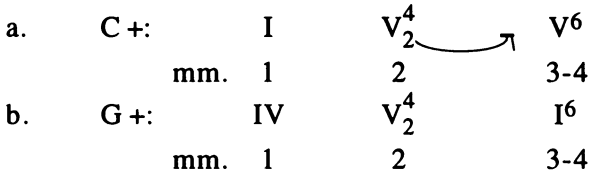
Many questions arise in response to Figure 8, including: how can the network possibly incorporate the F-minor sonority of m. 8? How does B♭ relate to the opening C-major tonality? Could we not make a case for interpreting B♭ as IV of F major? The last of these questions, in fact, demands reappraisal not only of mm. 5-8, but, indeed, of the entire 13-measure sentence. Figure 9 offers two tonal contexts for mm. 5-8.

Figure 9. Beethoven, Op. 53/I, mm. 5-8:
two interpretations

a.	B♭+:		I	V_2^4		V^6		
		mm.	5	6		7		
b.	F +/-:		IV	V_2^4		I^6	/	i^6
		mm.	5	6		7		8

In that it accounts for both the F-major and the F-minor sonorities of the passage, Figure 9b is the more comprehensive. But this reading, in turn, places similar choices before us with respect to mm. 1-4. Figure 10 illustrates.

Figure 10. Beethoven, Op. 53/I, mm. 1-4: two interpretations



The mere suggestion that the opening statement of the *Waldstein* Sonata is in G major should elicit cries of heresy from the sober musician. But the real flaw here is that the reader has, in a sense, been "cornered," and been asked to make nothing but an either/or response. As with all "rigid" analytical approaches this one tends to be counter-productive; the dichotomous arguments presented in Figures 9 and 10 pursue only their own agendas, and in the process detract from the richness of the actual musical events. In the opening of *Opus 53*—and, as coincidence would have it, in the opening of his first symphony—it is entirely possible that Beethoven means temporarily to hold in abeyance our sense of tonal center: to wit, he variously swerves and deflects attention from what is only later affirmed as the true home key.

Contemplation of the turn to F minor in m. 8 and the method by which the dominant is extended in mm. 9-13 provides badly needed information concerning the tonal events of the first sentence. The pivotal point arrives in m. 12. There, G, as V, is prolonged by the *minor* tonic. This observation makes it possible to assert that mixture is an essential component in the passage. C major accounts for the tonicized G-major sonority in m. 2, as well as the tonicized F-major sonority in m. 7. C minor explains the B♭-major sonority of m. 5 and the F-minor sonority of m. 8. The non-tonicized G of mm. 9-13 serves as the point of intersection between C major and C minor; it represents the functional dominant of each key.

Had G been tonicized in mm. 9-13, its dual role would have been compromised, for G major is not a product of C

Figure 11. Beethoven, Op. 53/I, mm. 1-13, the "New" Network

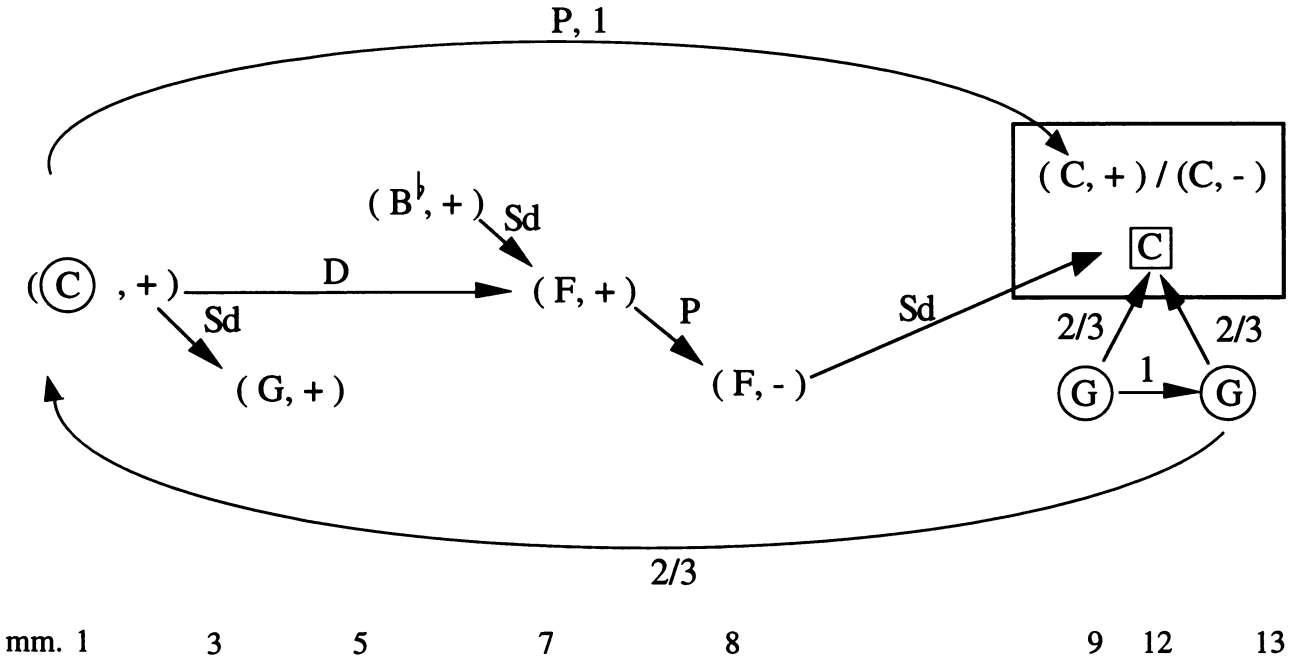


Figure 12. Beethoven, Op. 53/I, a Comparison of the Networks Representing mm. 1-13 and mm. 1-155

a) mm. 1-13

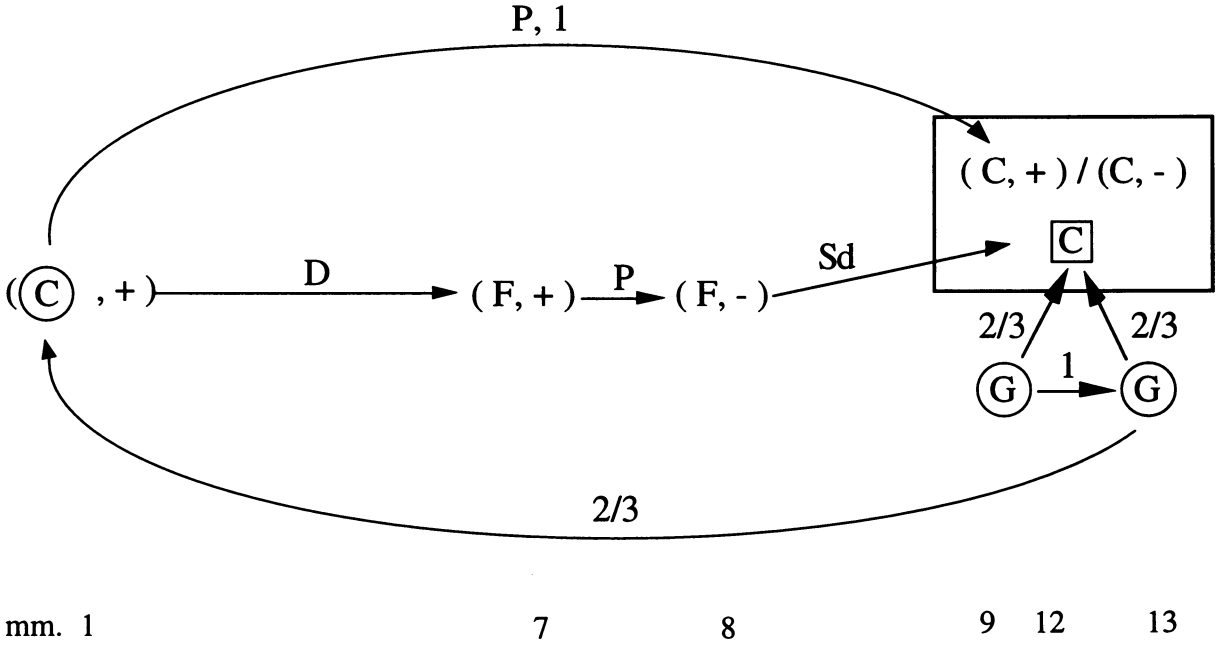


Figure 12 (continued).

b) mm. 1-155

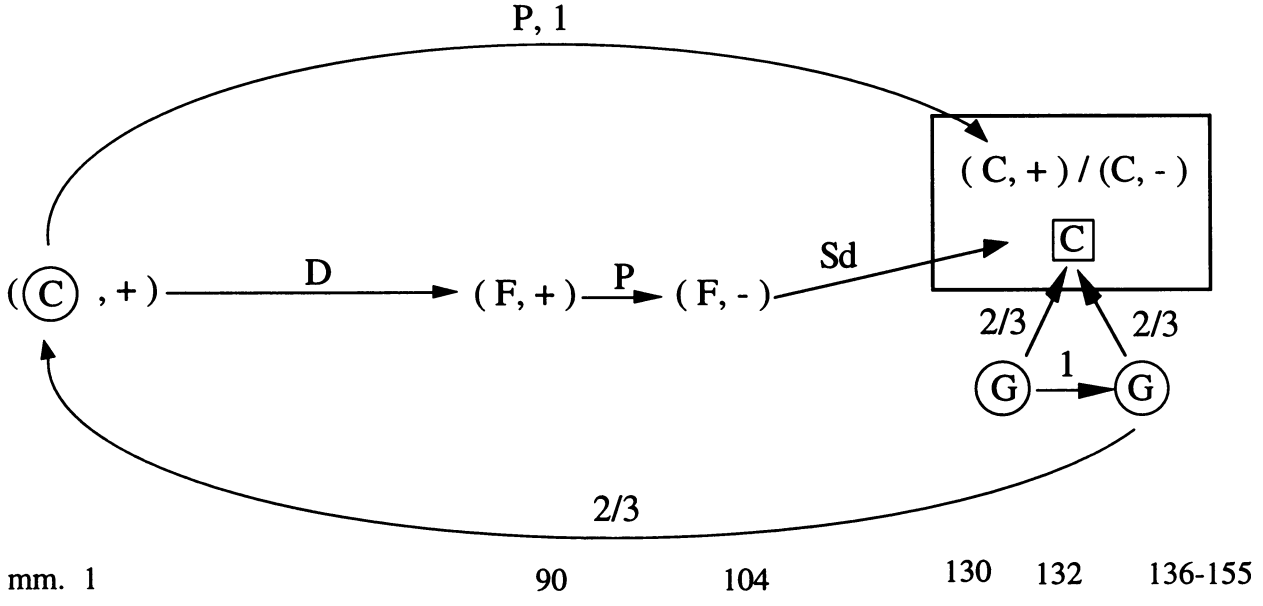


Figure 13. Beethoven, Op. 53/I, Schenkerian Reductions of mm. 1-13 and mm. 1-155

a) mm. 1-13

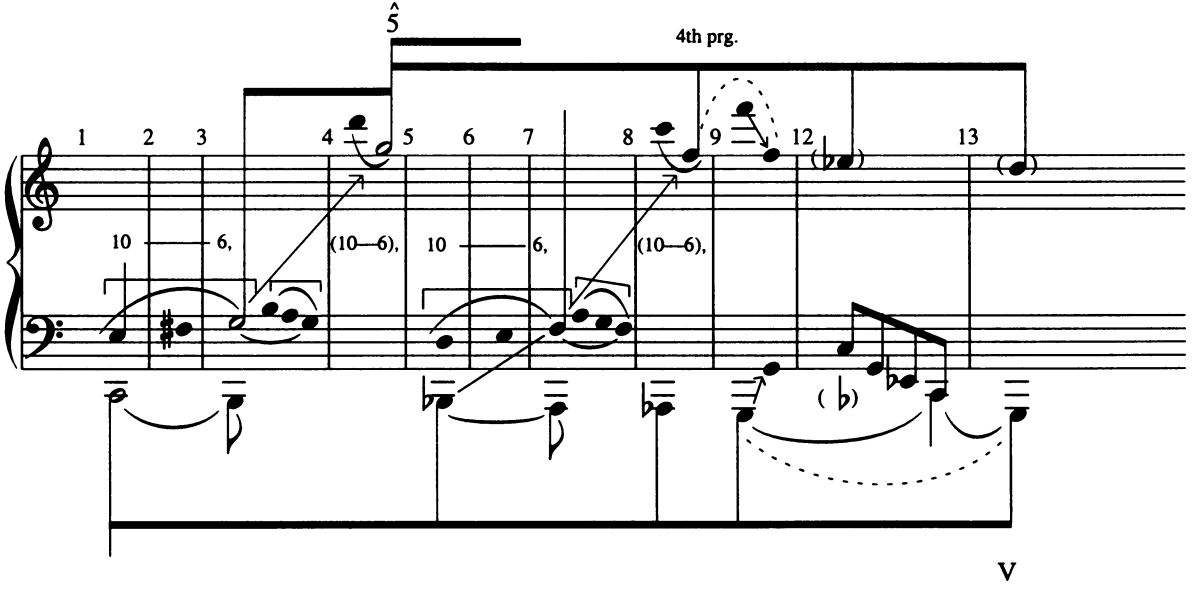
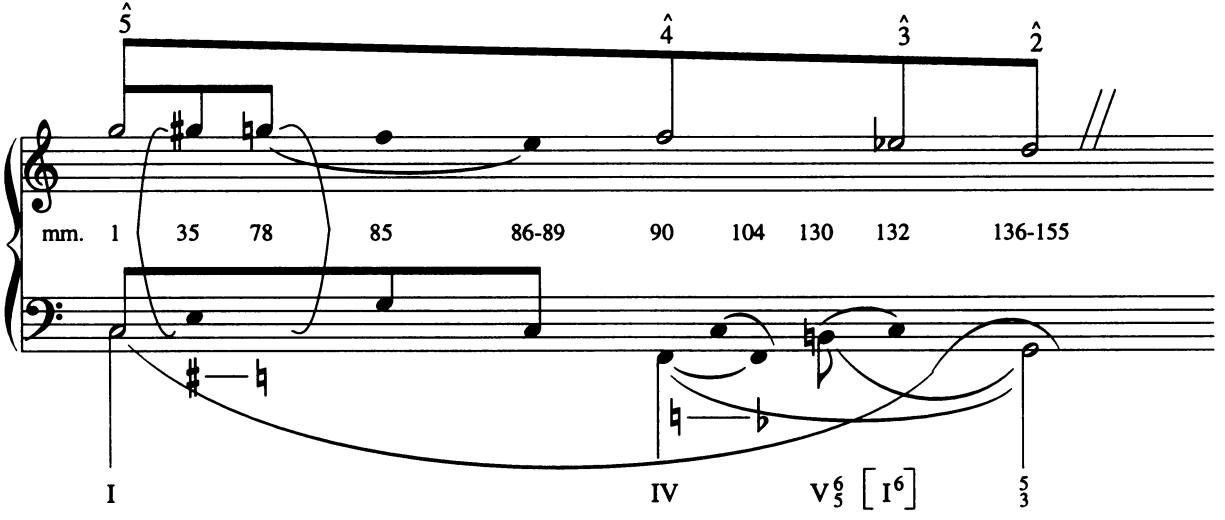


Figure 13 (continued).

b) mm. 1-155



minor.[27] As a non-tonicized functional dominant, however, G is able to prolong both C major and C minor through to the conclusion of m. 13.

The opening musical sentence cannot be analyzed solely as a *Klang* transformational or as a fundamental-bass network. The case for the former is denied by the fact that *Klang* networks turn wholly on the notion of transformation, wherein one *Klang* forfeits its initial contextual setting in favor of that of the new host *Klang*.[28] The case for the latter is no stronger, as fundamental-bass networks cannot account for mixture.[29] Thus, in order to project a Lewinian reading of mm. 1-13, features from the two networks must be wedded, and the offspring of this union will resemble both parents; just such a network is found in Figure 11.

The leap of faith required in the preceding interpretation occurs in m. 12, where we are asked to read the event neither as an instance of C major, nor as an instance of C minor, but rather as the simultaneous prolongation of the two modes.

The beauty of such a reading is that it leads us further into the movement as a whole, for a parallel exists between the tonal events of mm. 1-13 and those that unfold to the conclusion of the development section in m. 155. In other words, the network in Figure 11 is isographic with the network that takes into account a deeper-level analysis from the opening of the movement to the end of the development. Figure 12 illustrates.

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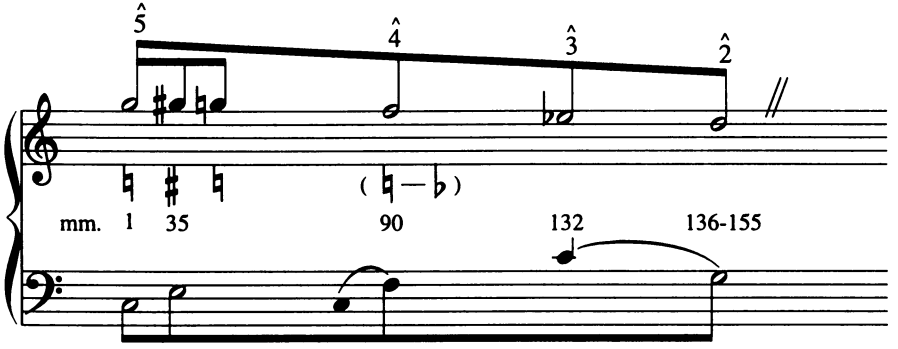
[27]Consider how infrequently the major dominant serves as a secondary tonal area in minor-mode compositions of the Classical period.

[28]The point here is that (G), the terminal node in Figures 7, 11, and 12, does not go through any transformational process in order to "become" the dominant of C, for G maintains that role throughout the movement. It may even be that transformational and generational networks share something with Schenker's conception of structural levels—with transformational networks more reflective of foreground events and generational networks somehow analogous to deeper analytical levels in the musical structure.

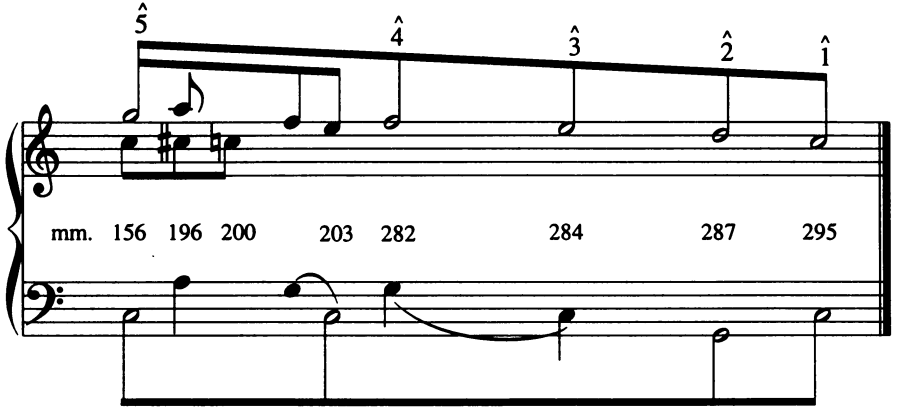
[29]Again, central to the definition of a fundamental-bass network is the notion of generation from a single governing tonality, which, in and of itself, is not able to effect mode change.

Figure 14. Beethoven, Op. 53/I, Deep-Middleground Analyses

a) Exposition/Development



b) Recapitulation



The isographic identity of Figures 12a and 12b makes explicit a relationship that can be intuited by competent listeners, yet the relationship is difficult to express without the aid of a transformational network. Let us consider the case of a Schenkerian interpretation of the two passages (see Figure 13).

The similarity between the 4th-progression in Figure 13a and the unfolding of the *Urlinie* from $\hat{5}$ (m. 1) to $\hat{2}$ at the point of interruption (m. 155) in Figure 13b is apparent, but the radical difference between the bass lines that accompany each descent prohibits, rather than fosters, further comparison.

Returning for a moment to Figure 12, one might be tempted to protest that by failing to provide a detailed account of the events of mm. 1-6 (Figure 12a) and mm. 1-89 (Figure 12b), each network is arbitrarily selective. Yet against such criticism it need only be stated that the material in question (mm. 1-6 and mm. 1-89) is in no way parenthetical; it is simply not identical. In both passages—represented in Figures 12a and 12b—the *Klang* (F,+) arrives, and serves an identical function after its arrival, although the paths leading up to it differ.[30] The networks in Figure 12 are methodologically sound, for they satisfy the first two of Lewin's earlier-stated criteria: they demonstrate a strong relationship between two passages, and they take us further into the music.[31]

Isography is an important feature of the networks in Figure 12. Likewise, Lewin's analysis of the passages from Beethoven's *Symphony No. 1* (see pp. 3-5 above) hinges on the issue of isography. Before bringing the present study to a conclusion, I will demonstrate—again with reference to the

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[30]By way of analogy consider these expressions:

(p)FUNC"E" = (q) ; (p)FUNC"Y" = (q)

The precise internal details of FUNC"E" and FUNC"Y" may differ, yet in each case (p) is mapped onto (q).

[31]Whether or not these networks are "technically malformed by the criteria of *GMIT*" ("Some Notes," p. 50) is of little consequence. The task at hand has merely been to demonstrate the analytical value of such a "hybrid."

Waldstein Sonata—that transformational networks are not concerned exclusively with demonstrating isographic relationships among various portions of a composition; that is to say, isography is not a pre-condition for determining the validity of such networks.

Deep-middleground Schenkerian analyses of the exposition/development and of the recapitulation from the first movement of Beethoven's *Op. 53* are presented in Figure 14.[32]

While the two readings begin in much the same way (on $\hat{5}$/I), and while m. 136 corresponds to m. 287 ($\hat{2}$/V), little else is similar. The *Bassbrechung* (I—V) in Figure 14a casts m. 35 in the role of third-divider between tonic and dominant. The local key area in m. 35 is E major, and it (E major) can be said to represent another instance of mixture.[33] By way of contrast, the A-major material in m. 196 is not afforded the same elevated status as a middleground event. In fact, this material could have been represented parenthetically in Figure 14b, for it participates neither in the descent of the *Urlinie* nor in the *Bassbrechung*.

Figures 14a and 14b are independent—as opposed to interdependent—readings, and such readings are perfectly justifiable in Schenkerian analyses, where tonal events are accounted for, above all, by their relationship to a privileged tonic. To emphasize a point that I raised earlier, in sponsoring a part-to-whole philosophy, Schenkerian analysis is synecdochical. Thus, to expect to find a functional relationship between m. 35 and m. 196 at this level in a Schenkerian analysis is to misunderstand the very intent behind the analysis, for it is not the object of deep-middleground Schenkerian graphs to portray strong motivic inter-connections among the various sections of a work. Such

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[32]I am relatively satisfied with my graph of the exposition-development (Figure 14a), yet I am not as convinced by my depiction of the recapitulation (Figure 14b). But regardless of any future change that I might make to the sketch, the argument that follows will stand.

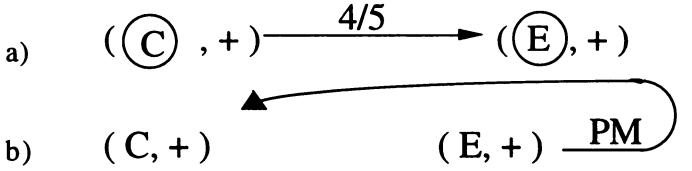
[33]Recall, with respect to mixture, my earlier discussion of mm. 1-13.

connections tend more to be the provenance of foreground and early-middleground levels. At the same time, however, the motivic parallelism between the passages beginning at m. 35 and m. 196 invites me to hear a direct association between the beginning of the second key area in the exposition and the corresponding location in the recapitulation.

Fortunately, the dilemma that we are faced with is more apparent than real, for the aural connection between the sections can be expressed quite directly with the aid of a "hybrid" transformational/generational network. What is more, such a network can co-exist with—rather than undermine—the belief system central to Schenkerian thought.

Two different operations mapping the relationship between the (C,+) and (E,+) *Klänge* in the exposition are represented in Figure 15.

Figure 15. Beethoven Op. 53/I: two interpretations of the move to E major in the exposition



Of the two interpretations, I believe that the compound operation in Figure 15b is the more convincing.[34] Figure 15a may seem to reflect more accurately the chronology of the musical events—but only in the (trivial) *visual* sense. It is important to remember that the (E,+) *Klang* is not a terminal

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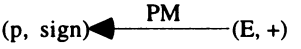
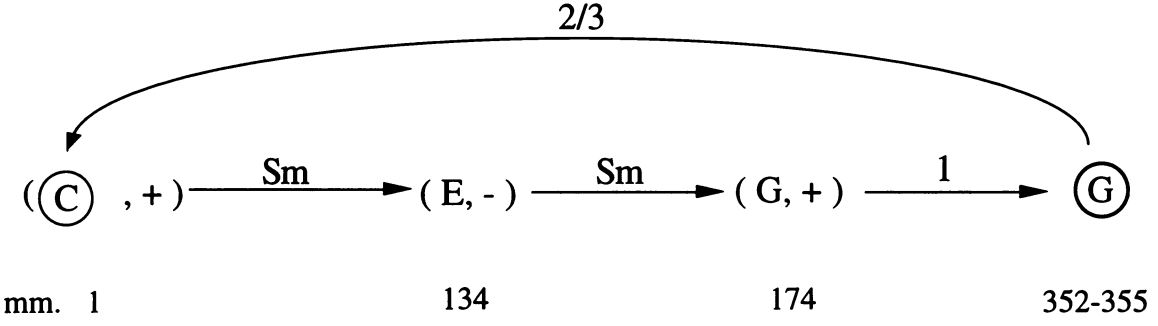
[34]The notation in Figure 15b may seem awkward at first, yet it is borne of a desire to eliminate any possible confusion concerning the order of events for compound operations in a system that employs right orthography. Consider an alternative depiction:



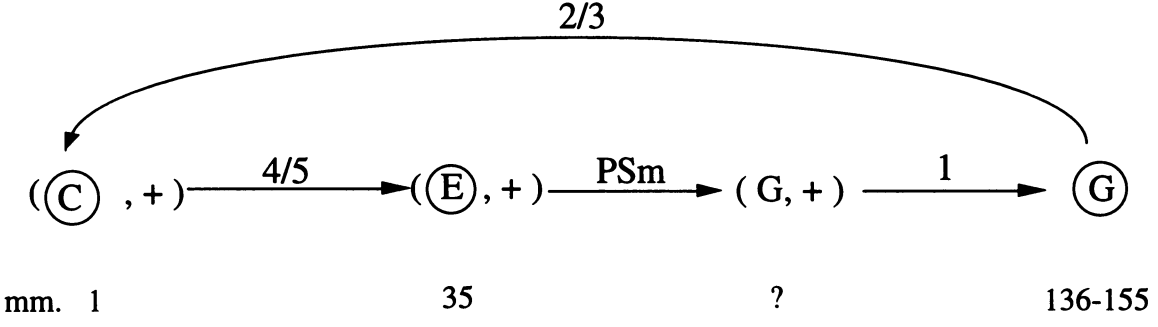
Does the operation suggest that (E,+) is moved into its parallel mode and becomes the mediant of (C, +), or that (E, +) becomes the mediant of (C♯, +)?!

Figure 16. Schubert Symphony 9/I & the "Hypothetical" Waldstein

a) Schubert



b) The "New" Waldstein



point in the movement: the E-major material is only a part of a larger motion towards the G sonority (functionally a non-tonicized dominant) that arrives at the conclusion of the development section. In this sense, the details of Figure 15b are truer to my musical hearing.

The ramifications of the preceding observations are many. Were Beethoven to have employed a "three-key" exposition in the *Waldstein*, such as that in the first movement of Schubert's *Symphony No. 9*, the rationale for the fundamental-bass operation of Figure 15a would have been re-enforced by the new contextual setting. Figure 16 illustrates.

But since G is not tonicized in Beethoven's *Opus 53/I*, the hypothetical third tonal area indicated in Figure 16b never materializes. In fact, in a middleground sense, G is not tonicized at *any* point in the first movement of the *Waldstein*.[35] Middleground arrivals on III and IV become local tonics in the exposition/development; middleground arrivals on ♭II (mixture!) and VI are locally tonicized in the recapitulation; one might even argue that ♭VII is strongly tonicized in the development (see mm. 116 ff.)—an argument that is strengthened by the presence of the root-position B♭ major chord in m. 5. By virtue of non-tonicization, G alone retains its function as foreground dominant at all points in the movement. It is therefore appropriate to consider G only in terms of its relationship to the generational tonic sonority, C major—a relationship best represented by a fundamental-bass network. But knowledge of the many instances of tonicization over the course of the movement tells us that we can construct neither an authentic *Klang* nor an authentic fundamental-bass transformational network that maps out the deep-middleground events of the movement as a whole. Thus, once again, I propose a hybrid structure that employs aspects of both network types in order to account for the compositional

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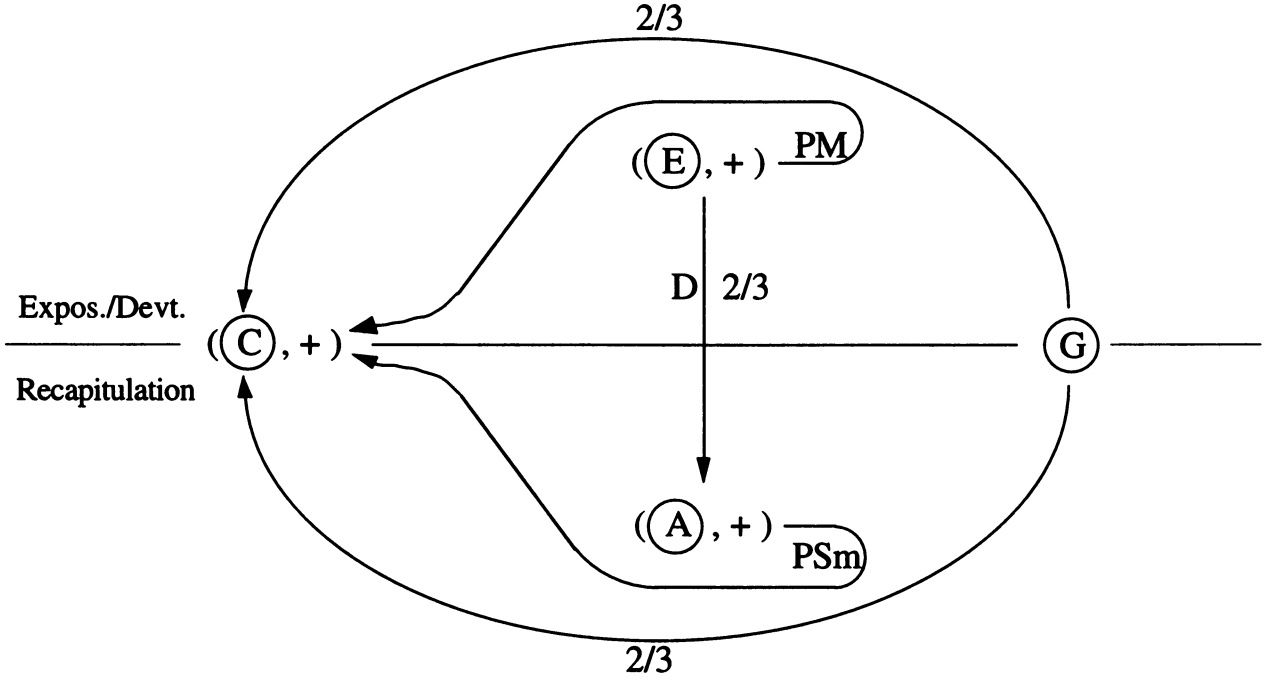
[35]The foreground move to G_3^6 through its dominant in the opening gesture of the exposition (and similarly in the recapitulation) does not refute the argument being advanced here, for that event is understood as an intensified lower neighboring expansion of I (see note 26, above).

Figure 17. Beethoven Op. 53/I, "The" Network



details in the Beethoven sonata. Part of the beauty of the network that follows is that it does not conflict with the Schenkerian analysis offered in Figure 14. Instead, it complements that reading by highlighting the aural association between the second tonal area in the exposition and the parallel location in the recapitulation. The network thus allows us to contextualize the (E,+) *Klang* in the exposition in the immediate sense as a third-divider (en route to the V at the conclusion of the development) *and* in the longer range as the dominant of A (+/-), which appears in the recapitulation.[36] The very possibility that the E-major material carries multiple meanings confirms that its use is a calculated maneuver, and not merely some capricious invocation of secondary mixture.

* * *

One of the many valuable facets of generational and transformational networks is that they do not seek to replace proven analytical methodologies. By virtue of their flexibility these networks are able easily to co-exist with other approaches. If every thing is indeed infinite, as William Blake has suggested, then accepting as equally valid the information generated by *any* sound approach to music will place us on the path toward greater understanding of the limitless meaning behind each composition.

I do not mean to suggest that the future growth of music theory depends exclusively on our discipline's capacity to adopt inter-analytical or inter-methodological approaches. At the same time, remaining open to the viability of this tack will allow us ever anew to probe into that which we find compelling about musical compositions, unencumbered by the restraints of any single analytical system. Music is, after all, a vital and permissive art form, one that patiently endures an ever-increasing variety of analytical musing.

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[36]David Beach, in "On Analysis, Beethoven, and Extravagance," (180) speaks of the more local function of the E-major sonority in the second tonal area of the exposition, regarding it as harmonic support for the chromatic upper neighbor (i.e. G♯) of the head-tone.