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"Schenkerian-Schoenbergian Analysis" and Hidden Repetition in the Opening Movement of Beethoven's Piano Sonata Op. 10, No. 1

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ABSTRACT: A process akin to Schoenberg's "musical idea" accounts to a large degree for motivic coherence in the first movement of Beethoven's Piano Sonata Op. 10, No. 1. My article illustrates this process by means of a synthesis of Schenker's and Schoenberg's approaches to analysis. I use Schenkerian analysis to identify potential motives at various levels of musical structure, then interpret the treatment of some of these segments according to Schoenberg's model. I also show how the primary motivic process interacts with other such processes in the first movement.

[References](#)

[1] Among followers of Schenker, the notion of "hidden repetition" has garnered a good deal of interest in recent years. Articles by Beach, Burkhart, Cadwallader and Pastille, Kamien, Rothgeb, and Schachter, among others, have illustrated how repetition of a given motive or motives at different levels contributes to organic coherence in a variety of tonal works. [\[1\]](#) However, one rarely finds in this literature a comprehensive treatment of how the repetitions of a motive (hidden or otherwise) in a piece bind together into one all-encompassing process. Many tonal pieces can be heard as working out just such processes: one not only exists in the first movement of Beethoven's Sonata Op. 10, No. 1, but also accounts to a large degree for that piece's motivic coherence.

[2] There is another analytic tradition originating in the same time and place as Schenker's that concerns itself specifically with the question of how a single process can organize motivic relations (or other kinds of relations) across the surface of a tonal piece. That tradition stems from the theoretical work of Arnold Schoenberg. Schoenberg's analytic approach has not been adopted as commonly in studies of tonal music as has Schenkerian analysis: one possible reason is a disagreement among scholars who use Schoenberg's method about its basic terms and concepts, such as "developing variation," *Grundgestalt*, and "musical idea." [\[2\]](#)

Accordingly, I begin by briefly outlining my understanding of the Schoenbergian terms crucial to my study. Schoenberg accounts for coherence in a piece by showing how its initial material (what he calls *Grundgestalt*) sets up an opposition of pitches, chords, motives, or rhythms that is then elaborated through the course of the piece and ultimately resolved (by the principal ingredient of the *Grundgestalt* absorbing or subsuming its opponent) at or near the end. This blueprint for a whole piece, which can also be thought of as a compositional dialectic, is what Schoenberg means by the term "musical idea" or *musikalische Gedanke*. [\[3\]](#) My article will show how the motives at foreground and low-middleground levels in the first movement of Beethoven's Op. 10, No. 1 project a process very much like that described by Schoenberg, but unlike Schoenberg and other scholars who practice Schoenbergian analysis, I will limit what I call "motive" to segments that are equivalent to diminutions in the Schenkerian sense or that combine such diminutions. This is how I plan to forestall the kinds of criticism that have been made against Schoenbergian analysis by Schenkerians such as Rothgeb and Burkhart; namely, that the motivic segments in Schoenberg's analyses and those of his followers disagree with the segmentation that would be imposed by a correct Schenkerian graph. [\[4\]](#) Since my approach relies on Schenker for motive identification but interprets the relations between some of these motives in a way parallel to Schoenberg's musical idea, I have given it the label "Schenkerian-Schoenbergian Analysis."

[\[3\]](#) I believe "Schenkerian-Schoenbergian Analysis" introduces a new way of amalgamating the two approaches. Others have attempted to combine them, most notably David Epstein in *Beyond Orpheus*, but in ways considerably different from the present article. [\[5\]](#) Epstein's concept of "musical idea" focuses primarily on the power of the *Grundgestalt* to unify the piece through its repetition at various structural levels, not on the dialectical process that organizes such repetitions through the piece. [\[6\]](#) His focus results in some insightful analyses, which sometimes describe the introduction of elements foreign to the main tonality within the *Grundgestalt* and the elaborations through the piece of such oppositions (his account of the Eb-D-C# motive that appears in mm. 4-5 of the first movement of Beethoven's *Eroica* Symphony and its subsequent consequences is a good example; see pp. 111-27). Yet rarely does he show how such foreign elements are assimilated into the home tonality as the final stage of an overarching process. In addition, the middleground shapes Epstein claims as offspring of the motive sometimes diverge from what would typically be considered Schenkerian middlegrounds (again, an example can be found in his *Eroica* analysis: a reordering of the Eb-D-C# motive that goes D-Eb-Db, see p. 114). In the present article, middleground motives always function as diminutions in an orthodox sense.

[4] Another, more recent, contribution that combines aspects of Schoenberg's theoretical writings with the Schenkerian approach is Janet Schmalfeldt's *Music Analysis* article on the "Reconciliation of Schenkerian Concepts with Traditional and Recent Theories of Form." [7] Schmalfeldt focuses on a different aspect of Schoenberg's theoretical output from my article: she demonstrates rather convincingly the mutual influences between formal elements introduced or developed by Schoenberg in *Fundamentals of Musical Composition* and various harmonic-contrapuntal structures characteristic of the Schenkerian viewpoint. Much of her article deals with Schenkerian correlates to the parts of the "sentence" structure proposed by Schoenberg in *Fundamentals*, but in addition she illustrates how Schoenberg's distinction between "fixed" themes and "loosely-constructed" themes and transition sections is enriched by and contributes to the Schenkerian perspective. One of the main pieces she analyzes is the same Beethoven sonata movement I take up in my article; accordingly, I will comment on differences between Schmalfeldt's and my analyses of specific passages in the footnotes.

[5] In Beethoven's Op. 10, No. 1, first movement, the *Grundgestalt* is mm. 1-9, the initial period plus the downbeat of the following measure. See [Example 1](#). This opening unit contains two voice-leading strands within the $i - viio6/5 - i6$ progression that can be heard as opponents to one another. The reasons are: 1) they present diminutions of different kinds, and 2) they are given contrasting characters through the surface characteristics applied to them such as register, dynamics, and diminution. These motives are the ascending third harmonized by parallel tenths (labeled delta in [Example 1](#)) and the double neighbor figure (labeled alpha). [8] Within the *Grundgestalt*, motive delta is undoubtedly more strongly presented. Delta's first two notes (Eb and F) are not only led up to by long arpeggios at a *forte* dynamic, but also are set in a high register, repeated and accented. The third note of delta, G (which is the movement's primary tone), gets less registral, diminutional, and dynamic emphasis, yet it has a relatively long note value and occurs on a downbeat. It too has an arpeggio prefix, consisting of two grace notes. Meanwhile, the parallel tenths supporting delta possess the registral low end of the passage, and are also dynamically emphasized. In contrast, motive alpha occurs in a middle register at a *piano* dynamic and has no surface diminutions prefixed to its members, giving it an unmistakable inner-voice quality. [9]

[6] According to Schoenberg's "idea," the next step in Beethoven's process, having established an opposition between motives delta and alpha, would be to elaborate that opposition. Analyses by Schoenberg, Patricia Carpenter, and Severine Neff (as well as others) illustrate a variety of

ways that tonal pieces elaborate such oppositions; often, one of the opposing elements is a foreign pitch or chord with respect to the home key and the other is the tonic triad, and the elaboration consists of allowing the foreign element to simulate a tonic. In the movement under consideration, however, the procedure is a bit different, since the opposing elements are two motives, both members of the tonal-prolongational structure of mm. 1–9, which are marked as divergent by surface characteristics such as register and dynamics rather than by the tonalities they represent. In a few words, Beethoven gradually increases motive alpha’s salience by giving it delta’s original surface characteristics, while at the same time submerging motive delta by replacing its dominant characteristics with more recessive ones. This process then culminates in delta becoming a diminution of alpha, which, it seems to me, makes the motivic process resemble Hegelian dialectic. The exchange of status between the two motives begins at the exposition’s second theme, directly following a transition based almost entirely on the inversion of motive delta. See [Example 2. {10}](#) The first presentations of alpha in mm. 56–70 are somewhat veiled: they occur in the middleground behind the bass part, and are inversions of the original alpha. The soprano during these same measures does not present alpha as such; but instead begins with the middleground succession $\hat{1}-\hat{7} \hat{4}-\hat{3}$. This succession not only balances upper and lower neighbors like alpha and hence can be heard as related to it, but it also creates a rather normative example of the style structure Robert Gjerdingen identifies as a hallmark of the Classical era; combined as it is with alpha in the bass and $I - V \frac{4}{3} - V \frac{6}{5} - I$ in the harmony, and placing as it does suspensions leading to $\hat{7}$ and $\hat{3}$ on downbeats 4 measures apart. [{11}](#) The soprano follows this at mm. 64–71 with an ornamented version of a similar succession, $\hat{1}-\hat{7} \hat{2}-\hat{3}$, which in its contrapuntal, harmonic and metrical contexts also strongly resembles Gjerdingen’s style structure. The passage we have just discussed and the corresponding one in the recapitulation (mm. 215–48) are the only places in the movement where alpha plays a part in such structures; so that it is not necessary here to shift our focus to them from the process we are beginning to describe involving the gradual transformation of alpha within this movement. (Had we been considering relationships between Beethoven’s sonata movement and those of his Classical precursors—as Gjerdingen does—we might, however.) We can think of such style structures as early stages that alpha passes through on its journey toward greater salience: stable passages within which alpha (as bass line rather than inner voice) plays an increasingly significant role.

[7] The principal way that Beethoven increases motive alpha’s salience in this movement is to bring it from the middleground closer to the surface

(and then he gives it delta's surface characteristics, as I suggested above). Authors on hidden repetition generally refer to this technique as "contraction"; see for example the Rothgeb and Burkhart articles mentioned in footnote 1. There are three contractions of alpha in the second theme's closing measures—one at mm. 82–84 (which is repeated at mm. 84–86) and the others at mm. 86–90, in the alto and bass. See [Example 3](#). Beethoven highlights the first contraction of alpha as a segment by repeating it, while the second and third at mm. 86–90 are set off by registral and textural changes, as well as by the reintroduction of the ascending arpeggio prefix characteristic of delta when it first appeared in mm. 1–9. These three double neighbors are not literally on the surface of the music, but are certainly closer than their counterparts in mm. 56–70 (actually, not being on the surface helps us hear them as increasingly salient, given the fast tempos at which the passage is normally played). The last two alphas at mm. 86–90 incorporate a B \flat passing tone between the upper neighbor C and the lower neighbor A-natural—creating ascending and descending spans of a third within the viio \flat 7/V chord. This is a significant move, because the ascending and descending thirds, delta and its inversion, now serve as diminutions of the double neighbors, alpha and its inversion; prefiguring Beethoven's ultimate synthesis later in the piece, where the ascending third ornamenting the double neighbor moves up out of the inner voice into the soprano. [\[12\]](#)

[8] The codetta in the exposition summarizes the direction of the foregoing measures and at the same time brings alpha forward all the way to the surface of the music. See [Example 4](#). The tonic pitches in the descending Eb arpeggio from m. 98 to m. 105 are all decorated by lower and upper neighbors; the former harmonized, the latter dissonant. The dominant pitches receive a single upper neighbor.

[9] The development section begins with a presentation of motive delta, the ascending third, in C major, which retains many of the surface features that accompanied delta in the first theme: the ascending arpeggios leading up to E-natural and F, the alternation between *forte* and *piano* dynamics, the accents on repeated E-naturals and Fs. See [Example 5](#). But two essential features of the original ascending third are now missing; and because of this, it makes more sense to hear high E-natural, F and G as surface diminutions rather than the low-middleground motive that delta had originally been. First, motive delta no longer prolongs a tonic triad—while the E-natural is harmonized by I and the F by viio \flat 4/3, just as before, the G is now supported by a viio \flat 6/5 of iv, leading into the next section of the development which tonicizes F minor. Second, the harmonization in parallel tenths that delta had originally had has disappeared: instead, we hear E-natural–F–G in the lowest voice, which

would cause middleground parallel octaves with a manifestation of delta in the highest register. Possibly we could hear this low-register ascending third as delta without the accompanying tenths, but in that case the members of delta would all lack the surface characteristics such as diminution, accent, and dynamics that marked them as dominant in mm. 1–9. All these factors work together to make the ascending third less salient. Meanwhile, motive alpha also bridges I to viio6/5 of IV, but as a diminution circling around a single note—E-natural this time rather than C—it seems better able to retain its aural identity while reinforcing the ultimate direction of the passage (toward the subdominant).

[10] The trend of bringing motive alpha forward to the surface and thus increasing its salience, which we heard in the exposition, continues in the development. See [Example 6](#). At mm. 119–21, we hear the double neighbor at the surface in the soprano: this is the original form, with lower neighbor first. It appears again a perfect fourth higher at mm. 127–29, as part of a sequence tonicizing first iv, then iv of iv. At the same time, the inversion of alpha underlies the tonicizations of F minor and Bb minor, in a manner very similar to the second theme. All the notes of alpha get a consonant skip of a third, as they had in the earlier passage, and the harmony, I – V 4/3 – V 6/5 – V7 – I, only slightly varies that of the earlier passage (though the addition of V7 turns alpha into a motive projected by a combination of two voices; the third note of alpha—E natural in m. 121 and A natural in m. 129—is, according to my reading, a tenor note). In mm. 118–33, then, the alpha motive appears simultaneously at two levels—foreground and low middleground—saturating the pitch structure in a way we have not heard to this point. In the measures almost immediately following, the double neighbor begins to saturate the piece in another way. See [Example 7](#), my graph of mm. 136–41 and their immediate context. Here, every two-measure unit contains alpha, presented in sixths and tenths without accompaniment to call the listener’s attention to it. These measures are a culmination of the double neighbor’s gradual growth in salience—at this point in the movement, nothing is happening *except* alpha. The graph makes clear the function of these motivic repetitions in their larger context: they embellish a prolonged neighbor Ab which resolves back to the primary tone at m. 148. One interesting aside about Beethoven’s approach to the primary tone: note that the Bb neighbor that supplants Ab in mm. 143–45, the Ab, and the eventual resolution G are counterpointed by lower neighbors in the bass, E-natural–F and B-natural–C. The notion of balancing upper and lower neighbors affects this piece in ways beyond the process involving the alpha motive. We’ll see another, higher-level, example later on.

[11] As one would expect, the recapitulation replays the motivic process we heard in the exposition, with few changes (although one of those changes is extremely significant to the motivic process as a whole). Motive delta reasserts itself at mm. 168–76, “pushing alpha back down into the inner voice,” as it were. And although the recap’s transition points toward F major rather than Eb as it originally had, it still relies heavily on inversions of delta. Motive alpha does not begin to regain the upper hand until the second theme at m. 215. See my graph of mm. 215–47 in [Example 8](#). Since Beethoven states the first two phrases of his theme in F major, then repeats them in C minor, we have *two* opportunities to hear the repeated inversion of alpha in the bass, counterpointed against $\hat{1}-\hat{7}$ $\hat{4}-\hat{3}$ and $\hat{1}-\hat{7}$ $\hat{2}-\hat{3}$ in the soprano. Not only has the composer “corrected” the key of his second theme, but he has given himself an opportunity to powerfully reassert the alpha motive through repetition.

[12] In mm. 251–53, the movement’s fundamental line makes its descent to $\hat{3}$, and this is followed almost immediately (at mm. 259–67) by the statements of motive alpha that we heard first in the latter measures of the exposition’s second theme. See [Example 9](#). In the recap, the double neighbors ornament the fifth scale degree, G, setting the listener up for the movement’s final cadence. The first two of these at mm. 259 and 261 are not that different from their counterparts in mm. 82 and 84. (One might comment on the way the upper neighbor is delayed in the second alpha through consonant skip diminutions.) But the third and fourth manifestations of motive alpha at mm. 263–67 add something significant to their counterparts at mm. 86–90: the double neighbor that mirrors that of the bass has been moved up from the alto into the soprano. As the alto had earlier, the soprano here projects a transposition of the original alpha motive (that is, with lower neighbor first). Like its alto predecessor, this soprano occurrence of alpha includes an *ascending third* as a diminution between the lower and upper neighbors, and the ascending third, like the original delta of mm. 1–9, is ornamented by arpeggios. This subsumption of delta and its diminutions by alpha, as I suggested before, constitutes the motivic synthesis that completes the movement’s overarching dialectic. While this synthesis had been buried in an inner voice at mm. 86–90 (like the alpha motive itself at mm. 1–9), here it bursts into prominence, capturing both of the outer voices that had belonged to delta at the beginning of the movement.

[13] Thus the surface, foreground, and low middleground manifestations of motives alpha and delta project a process akin to Schoenberg’s musical idea, which gives a kind of motivic coherence to Beethoven’s work that goes beyond simple unity. One question remains to be answered, however, concerning my account of this motivic process, a question that may have

caused some skepticism on the part of the reader. Namely, to what extent can we think of entities such as alpha and delta as *motives*, since many tonal pieces depend on and often feature double neighbors and ascending thirds harmonized in parallel tenths? Shouldn't these rather be thought of as common voice-leading components of the tonal system? David Epstein in *Beyond Orpheus* suggests one answer to this question; I will consider his and then contrast it with my own. According to Epstein, a common tonal element such as a major triad can be heard as a motive if it displays some "unusual property or characteristic" that it shares with other manifestations of that motive in the piece. For example, his attribution of motive status to the two Eb chords that open the first movement of Beethoven's *Eroica* Symphony hinges on the fact that their (rather unusual) spacing replicates almost exactly the pitch-class sequence of the beginning of the first theme. [\[13\]](#)

[14] In the opening movement of the Op. 10, No. 1 sonata, however, it is difficult to find unusual characteristics of (for instance) the alpha motive in mm. 1-9 that it shares with the other manifestations of alpha in the piece. Indeed, alpha's gradually taking on new characteristics as the movement progresses is a crucial reason for my hearing the piece as the elaboration of an opposition between alpha and delta. It seems that here the motives should be justified as such on different grounds. Possibly the fact that they take part in a process that spans the entire piece is enough; in other words, it is the motivic progression *itself* that invests alpha and delta with motivic significance. My viewpoint here does not go too far beyond Schoenberg's when he asserts in *Fundamentals of Musical Composition* that "every element or feature of a motive must be considered to be a motive if it is treated as such, that is if it is repeated with or without variation." [\[14\]](#) The main difference is I am claiming that it is not mere directionless repetition or variation, but an *organized process* of repetition and variation that causes me to single alpha and delta out from among all the other components of voice-leading in the piece. Many tonal pieces do indeed repeat and vary double neighbors and third-spans harmonized in tenths, but how many set two such components against one another in an opposition based on surface characteristics at the beginning, allow one to gradually wrest the position of dominance (or salience) from the other as the piece progresses, then culminate the process at the end by making the component that had been more salient at the beginning serve as the diminution of the other?

[15] One other voice-leading component that Beethoven identifies as a motive through the process in which it plays a part is what I will call motive beta. Motive beta gives rise to a non-dialectical process that also helps to structure the work, and in addition beta combines with delta and

alpha in ways significant to the shaping of the piece. Motive beta is the stepwise descent through a perfect or diminished fifth. Its most common version, G-F-Eb-D-C, makes its initial appearance at the end of the *Grundgestalt* (mm. 9-10) at the surface. See [Example 10](#). Motive beta is repeated immediately at the surface, then repeats with identical pitch classes at the middleground in mm. 16-22. An incomplete beta, G-F-Eb-D, also provides a middleground framework for the closing measures of the development, mm. 148-58. Finally, motive beta at the same pitch classes, G-F-Eb-D-C, provides the *Urfinie* for the entire movement. As we progress through the movement, then, we realize that beta is undergoing a progressive expansion—it contributes to the pitch structure on progressively higher levels. At the same time, all this expansion is balanced by beta's occurrence (again as G-F-Eb-D-C) on the surface at the end of the piece. My [Example 11](#) illustrates this. These surface reminders of beta at piece's end hook up with motive alpha in an interesting way—notice that the C that ends beta at m. 273 reappears as the goal note of alpha two measures later. In this way, beta seems to lead into alpha. But at the beginning of the piece, delta had led into beta in a similar way—see [Example 1](#) again—the last note of delta becomes the first note of beta. We could characterize the interaction between the three motives at beginning and end of piece as delta “handing off” to beta, which in turn “hands off” to alpha. Here also, we have a motivic process that shows alpha supplanting delta.

[16] Another aspect of the piece's motivic structure that my account of the dialectic involving delta and alpha ignored is the occurrences of these two motives at levels higher than the low middleground. There are a number of them, but we will focus on only one, portrayed in [Example 12](#). This example verticalizes the unfoldings from the second theme in the exposition and changes some registers to clearly illustrate the underlying voice-leading. As it turns out, the unfoldings in mm. 56-70 project an upper neighbor G-Ab-G followed by a lower neighbor G-F-G—a close relative of the inverted alpha motive on Eb that structures the bass line in that same passage.

[17] We have seen that a segmentation of Beethoven's Op. 10, No. 1 according to Schenkerian principles reveals a succession of motives that closely resembles the compositional dialectic of Schoenberg's “musical idea.” I believe that this approach constitutes a new way of combining Schenkerian and Schoenbergian analysis, one that could have value for the analysis of works other than Beethoven's. Recently I have tried a similar “hybrid” approach for the analysis of the first movement of Mahler's Tenth Symphony and for some of Schoenberg's Op. 6 songs. With both composers, “Schenkerian-Schoenbergian Analysis” led to some significant insights

about how the music makes sense as a process in time. What is most interesting is that Schoenberg's "idea" is able to form a framework for pitch structures in Beethoven and Mahler as well as Schoenberg's own music—possibly this *musikalische Gedanke* could be one among several keys to understanding the development of music in German-speaking countries in the nineteenth and early twentieth centuries.

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