

# Schoenberg on Problems; or, Why the Six-Three Chord Is Dissonant

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Arnold Schoenberg's curious ascription of dissonance to the six-three chord in his *Harmonielehre* reveals the positing of a unity of tonal and non-tonal music in their solving of problems of unrest in the tone, the dissonance, and the musical idea, but neither his fragmentary theoretical writings nor his interpreters have fleshed this connection out. On the contrary, the notion has arisen of a "tonal problem" as a distinguishing feature of tonal music. Drawing on blending theory and metaphor theory, I elucidate this unity by explaining Schoenberg's dialectical conceptions of the tone, the means of art (made up of consonances and dissonances), the musical work (as a presentation of the musical idea), and the evolution of perception and music and by supplementing Schoenberg's analysis of the first movement of Johannes Brahms's Piano Quartet No. 3 in C minor, op. 60. These findings shed new light on Schoenberg's and indeed on Brahms's musical thought.

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## Introduction

*We shall have no rest, as long as we have not solved the problems that are contained in tones.*

— Arnold Schoenberg

Arnold Schoenberg is known as the Great Emancipator of dissonance, the confounding father of modernist music.<sup>1</sup> It may seem surprising, then, to find him fussing in his *Harmonielehre* not only over the straight-jacketed six-four chord, but also over the utterly domesticated six-three chord. In his opinion, "Both are actually dissonances":

If the chord formed by the actual voices corresponds to the overtones of the bass, then the effect is similar to that of any single tone: the total phenomenon is named for the lowest tone, the bass, and is diagnosed as the fulfilment of the necessities of the bass tone....If, however, the actual tones and the overtones of the bass do not correspond, then clashes are produced among the elements above the bass. These clashes may be felt as barriers, as resistance....

If we now compare the sixth chord and the six-four chord with the triad [in root position], the decisive question in this comparison (since the tones are the same) is the position of the bass....And now we find that the overtones of the bass tones... are contradicted by the make-up of the chord.<sup>2</sup> Consequently, neither the sixth chord nor the six-four chord are as consonant as a triad in root position....

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<sup>1</sup> I thank members of the University of Iowa School of Music, the University of Colorado at Boulder College of Music, and the College Music Society Great Plains Chapter for their comments on presentations of condensed versions of this article. I thank Christopher Brakel for his assistance with assembling musical examples.

<sup>2</sup> The make-up of the six-three chord and six-four chord contradict the overtones of a bass tone in that the sixth and fourth above the bass are a step away from a perfect fifth and major third, which are equivalent to the third and fifth partials respectively.

The six-four chord, then, as well as the sixth chord, contains problems. Both are actually dissonances. But the problem of the six-four chord has more prospects of being solved, and is consequently *more urgent, more conspicuous*. The problem of the sixth chord is no less real, but it is farther from solution. The movement latent in it is not great enough to compel action and *may be ignored*. Nevertheless, its problem was not completely overlooked; the chord was indeed felt to be less suitable than the root position for defining the key....Since the ear has proved so subtly discriminating in the problem occasioned by the overtones of chord tones, we may well hope it will not disappoint us in the further development of music, even if this development should follow a course of which the aestheticians can already predict with certainty that it will lead to the end of art.<sup>3</sup>

If it seems odd to find Schoenberg treating both of these chords dissonances, then it is all the more remarkable to find him contradict himself some twenty pages later by denying that the six-four chord is an actual dissonance: “The six-four chord and the actual dissonance have only this in common, that in both lies a conflict that attracts attention” (*HL*, 76). Are the six-three chord and the six-four chord dissonant or not? Or perhaps the question should be, how can they be dissonant, if they are consonant?

Something else sticks out in the first quotation. Schoenberg describes the dissonant six-three chord and six-four chord as containing problems and latent movement, properties that he also ascribes to the tone and to the musical idea in *Harmonielehre* and in later writings. Regarding the tone, he claims that it “is capable of continuation, i.e. that movement is latent in it. That problems are concealed in it, problems that clash with one another, that the tone lives and seeks to propagate itself” (*HL*, 313; see also *HL*, 25). Regarding the musical idea, he refers to “the movement latent in an idea, through which alone an idea acquires life” (*HL*, 289). More specifically, he notes:

*The continuation of the musical idea...can only happen thus: that the unrest—problem—contained in the Grundgestalt or in the motive (and formulated by the “theme,” or not, if none has been stated) is shown in all its consequences. These consequences are presented through the destinies of the motive or the Grundgestalt. How the Grundgestalt changes under the influence of the forces struggling within it, in this movement to which the unrest leads, how the forces again attain a state of rest, this is the realization of the idea, this is its presentation.*<sup>4</sup>

<sup>3</sup> Schoenberg [1911] 1978, 57–58; cited hereafter in the text as *HL*. German page number references are to the first edition except where otherwise noted. The other abbreviated sources are: Schoenberg’s *Structural Functions of Harmony* ([1954] 1969), cited as *SF*; *Style and Idea* (1975), cited as *SI*; and *The Musical Idea and the Logic, Technique, and Art of Its Presentation* (1995), cited as *MI*. Throughout the essay, a double citation separated by a slash refers to the original German and the published translation for the purpose of comparison. A single citation of a translated work refers to the published translation. All translations are mine except where the German is not cited or where noted.

<sup>4</sup> “Die Weiterführung des musikalischen Gedankens kann nur...so erfolgen, dass das in der Grundgestalt, resp. im Motiv enthaltene Unruhe - Problem (das durch das ‚Thema‘ formuliert wurde, oder nicht; wenn ein solches nicht

For Schoenberg, these three cases of problems and latent movement—in the tone, the dissonance, and the musical idea—are linked because the problem or unrest consists in an unclear relation of tones to ground tones, and the latent movement aims to clarify this relation. These cases are distinguished according to whether “ground tone” (*Grundton*) means fundamental, root, or tonic. Unclear relations of overtones to the ground tone (fundamental) in the tone are problems that produce unrest in artists and lead them to seek clarification and solve the problems through imitation of the tone:

Until a short time before [musicians] had been on the right track, as, following the dictates of the material, they imitated the overtones. But then they tempered the system, and the system tempered the burning urgency to search....We ought not to forget that we still must account for the tones actually sounding, again and again, and shall have no rest from them nor from ourselves—especially from ourselves, for we are the searchers, the restless, who will not tire before we have found out—we shall have no rest, as long as we have not solved the problems that are contained in tones. (*HL*, 314)

“Dissonances” are unclear relations of tones to ground tones (roots of intervals or chords) that produce unrest and demand resolution, and they are also “more remote overtones” (*HL*, 46):

I will define consonances as the closer, simpler relations to the ground tone, dissonances as those that are more remote, more complicated. The consonances are accordingly the first overtones, and they are the more nearly perfect the closer they are to the ground tone. That means, the closer they lie to the ground tone, the more easily we can grasp their similarity to it, the more easily the ear can fit them into the tone as a whole and assimilate them, and the more easily we can determine that the sound of these overtones together with the ground tone is “restful” and euphonious, needing no resolution. The same should also hold for the dissonances as well.<sup>5</sup>

And in a particular piece of music, a problem of unclear relations of tones to ground tones (tonics) produces unrest or imbalance, and the clarification of these relations or the restoration of balance is the presentation of the musical idea:

Every tone which is added to a beginning tone makes the meaning of that tone doubtful. If, for instance, G follows after C, the ear may not be sure whether this expresses C major or G major, or even F major or E minor; and the addition of other tones may or may not clarify this problem. In this manner there is produced a state

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aufgestellt wurde) in allen seinen Konsequenzen gezeigt wird. Diese Konsequenzen sind dargestellt durch die Schicksale des Motivs oder der Grundgestalt. Wie sich die Grundgestalt verändert unter dem Einfluss der in ihr kämpfenden Kräfte, in dieser Bewegung in die die Unruhe übergeht, auf welche Weise sie dann wieder zur Ruhe gelangen, das ist die Durchführung des Gedankens, das ist seine Darstellung” (*MI*, 226/227).

<sup>5</sup> *HL*, 19/21; translation of “Grundton” changed to “ground tone” and “Gesamtklang” to “tone as a whole.”

of unrest, of imbalance which grows throughout most of the piece, and is enforced further by similar functions of the rhythm. The method by which balance is restored seems to me the real idea of the composition.<sup>6</sup>

Relations of tones to the ground tone (the tonic) can be more specifically relations between tones, chords, or keys. Here again, the determining factor is whether the related tones, as ground tones themselves, are fundamentals, roots, or tonics.

So the tone, the dissonance, and the musical idea are connected in that they contain unclear relations of tones to ground tones (fundamentals, roots, and tonics), problems that lead to movement in search of clarification. (I always translate “Grundton” as “ground tone” to highlight the connections between its meanings.) This complex of notions has far-reaching significance for Schoenberg’s musical thought, for in none of the quotations cited above does Schoenberg limit his claims to music with tonality—that is, music that employs “the art of combining tones in such successions and such a manner of simultaneity that the relation of all events to a ground tone becomes perceptible.”<sup>7</sup> On the contrary, as the opening quotation from *Harmonielehre* about six-three chords and six-four chords already makes clear, he connects the notions of problems and movement to the evolution of music, which—as we have often heard it said—led to “the dissolution of tonality” (*HL*, 196). What we have here, then, are the lineaments of a unity of “tonal and...non-tonal music” in their solving of problems of unrest.<sup>8</sup> But Schoenberg never explains in detail how the musical idea in a piece of non-tonal music might involve a problem along the lines described above. In a fragment entitled “Zu: Darstellung des Gedankens” (one of three with this title), he even seems to say that in twelve-tone music, relations of tones to ground tones are not a problem:

The question of tonality can only be decided in accordance with the laws of the presentation of the idea.

Compositions that are in every sense made tonally proceed so as to bring every appearing tone into direct or indirect relation to the ground tone, and their technique aims to bring this relation to expression in such a way that doubt about how the tone is related can never come up for long.

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<sup>6</sup> Arnold Schoenberg, “New Music, Outmoded Music, Style and Idea” (1946), in *SI*, 123.

<sup>7</sup> “Die Kunst, die Töne in solcher Reigenfolge und solcher Art von Gleichzeitigkeit zu verbinden, daß ihre die Beziehung aller Vorkommnisse auf einen Grundton wahrnehmbar wird.” Arnold Schoenberg, “Probleme der Harmonie (Notizen)” (T23.03, January 13, 1927), *Z7*, in Jacob 2005, 2:788; see also *HL*, 29; and Arnold Schoenberg, “Opinion or Insight?” (1926), in *SI*, 261.

<sup>8</sup> “Tonale und...non-tonale Musik.” Arnold Schoenberg, “Aphorismen und Sprüche” (T50.08, 1916–36, 1949) (Arnold Schönberg Center, <http://www.schoenberg.at>), 8.

This way is not only how the individual tone is handled but also how all tone progressions, harmonies, and progressions of harmonies are constructed.

Composition with twelve tones related only to one another (incorrectly called atonal composition) assumes familiarity with these relations, does not see in them a problem still to be solved and worked out, and in this sense works with entire complexes, similar to how language works with comprehensive terms whose scope and significance are assumed to be generally familiar.<sup>9</sup>

The problem that I am interested in, then, is how to understand Schoenberg's understanding of the unity of tonal and non-tonal music with regard to problems in the tone, the dissonance, and the musical idea in light of his laconic and seemingly conflicting statements on the matter.

Schoenberg's writings on this topic have given rise to equally disparate interpretations. Carl Dahlhaus, Charlotte M. Cross, Patricia Carpenter, Pamela C. White, John R. Covach, Severine Neff, Alexander Goehr, Markus Fahlbusch, Christian Reineke and others have shed much light on Schoenberg's concept of the musical idea as a central element of his musical thought, and Andreas Jacob (2001; and 2005, 1:126–73) has traced its historical background and its development in Schoenberg's writings.<sup>10</sup> Partly on the basis of the series of manuscripts known as the *Gedanke* manuscripts (which includes "Zu: Darstellung des Gedankens"), Carpenter and Neff have explained Schoenberg's understanding of the musical work as a presentation of the musical idea and have called attention to the problem in the musical idea. But despite recognizing the universality of the musical idea for Schoenberg, they interpret its problem as being restricted to tonal music, citing the quotation from "Zu: Darstellung des Gedankens" as evidence.<sup>11</sup> Accordingly, they have called it the "tonal problem" and have applied this notion to tonal

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<sup>9</sup> "Die Frage der Tonalität ist nur nach den Gesetzen der Darstellung des musikalischen Gedankens zu beurteilen. "Die im alten Sinn tonal gearbeiteten Kompositionen verfahren so, dass sie jeden auftretenden Ton in ein unmittelbares oder mittelbares Verhältnis zum Grundton bringen und ihre Technik ist bemüht, dieses Verhältnis so zum Ausdruck zu bringen, dass ein Zweifel darüber, wohin der Ton sich [bezieht] niemals längere Zeit hindurch aufkommen kann.

"So wird nicht nur der einzelne Ton behandelt, sondern auch alle Tonfolgen sind so konstruiert, alle Zusammenklänge und alle Folgen von Zusammenklängen.

"Die Komposition mit 12 nur aufeinander bezogenen Tönen (unrichtig atonale K. benannt) setzt die Bekanntschaft dieser Beziehungen voraus, sieht in ihnen nicht ein erst zu lösendes und herauszuarbeitendes Problem und arbeitet in diesem Sinne mit ganzen Komplexen, ähnlich wie die Sprache mit umfassenden Begriffen arbeitet, deren Umfang und Bedeutung als allgemein bekannt vorausgesetzt wird." Arnold Schoenberg, "Zu: Darstellung des Gedankens" (T35.02, November 12, 1925) (Arnold Schönberg Center, <http://www.schoenberg.at>), 1; bracketed alteration of transcription per Jacob 2005, 2:699.

<sup>10</sup> See for example Carl Dahlhaus, "Schoenberg's Poetics of Music" (1976), in Dahlhaus 1987, 73–80; Cross 1980; Carpenter 1984; White 1985; Covach 1992; Patricia Carpenter and Severine Neff, "Commentary," in *MI*, 1–86; Covach 1996; Carpenter and Neff 1997; Goehr 1998; Fahlbusch 2006; and Reineke 2007.

<sup>11</sup> *MI*, 14; see also Carpenter 1998, 219–20.

analysis.<sup>12</sup> Murray Dineen (1989; 1993; 2004; 2005a; and 2005b) and David Bernstein (2003) have followed Carpenter and Neff in this regard, although Dineen (2000, 56–59) has also pointed to evidence that several students of the Second Viennese School may have understood twelve-tone music in terms of problems. In response to Carpenter and Neff, Cross (2005; and Schoenberg 2007) has argued that the *Gedanke* manuscripts are intimately bound up with Schoenberg's twelve-tone composition, but she does not attempt to explain how Schoenberg's comments here on problems apply to twelve-tone music. Jack Boss (2000; 2008; and 2009), J. Daniel Jenkins (2007, 35–92), and Bruce Quaglia (2008) have analyzed Schoenberg's non-tonal music in terms of the musical idea and its problem (for Boss, one with a solution, for Quaglia, one without a solution, and for Jenkins, one that does not necessarily have a solution), but they consider the structural elements of this music to be fundamentally different than those of tonal music and do not attempt to connect such a problem to those in the tone or the dissonance. Graham Phipps (1984) and Hidetoshi Fukuchi (2004) have meanwhile analyzed Schoenberg's twelve-tone music in terms of the musical idea and relations of tones to ground tones, but like many others who have applied tonal analytical techniques to Schoenberg's non-tonal music, they do not attempt to connect such a musical idea to a problem and its solution. Norton Dudeque (2005, 132–72) and Christian Raff (2006) have offered presentations of Schoenberg's formal concepts that apply to both tonal and non-tonal music, but they do not deal much with the musical idea and its problem.

What seem to be contradictions in Schoenberg's statements on dissonance and problems can be understood rather as symptoms of dialectical opposition, a thoroughgoing characteristic of his musical thought that Michael Cherlin (2007, 45) has defined as "the process wherein progress, change or some desired resultant is obtained through antagonisms or other types of opposition applied to matter, ideas, values, emotions, etc." In this paper, I elucidate the elusive unity of tonal and non-tonal music with respect to problems in the tone, the dissonance, and the musical idea by explaining Schoenberg's dialectical conceptions of the tone as an idea of nature, the means of art (made up of consonances and dissonances), and the musical work (as a presentation of the musical idea), which are elements of his dialectical conception of the evolution of perception and music, all of these conceptions being components of his theory of composition, his understanding of what it means to compose and how it has been done. In the first part of the paper, I lay out these conceptions through a reading of his theoretical writings, drawing on conceptual blending theory and conceptual metaphor theory as interpretive

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<sup>12</sup> See for example Carpenter 1983; Carpenter 1984; Carpenter 1988a; Carpenter 1988b; Carpenter 1991; Neff 1993a; Neff 1994; Carpenter 1997; Carpenter and Neff, "Commentary," in *MI*, 62–86; Neff 1999; and Carpenter 2005.

tools. In the second part, I supplement Schoenberg's analysis of the first movement of Johannes Brahms's Piano Quartet No. 3 in C minor, op. 60, demonstrating how Schoenberg's theory of composition applies to a particular piece, how Brahms's music catalyzes his theory, and how it is that the six-three chord is dissonant.

## I. Theory

### Method

As Carpenter (1998) and Neff (1993b) have argued, Schoenberg is occupied throughout his career with the formulation of a comprehensive aesthetic-technical theory of composition that encompasses and unifies harmony, counterpoint, instrumentation, and form, although he only completes fragments of it. With respect to technique, his theory is largely pedagogical and drawn empirically from masterworks. But especially with respect to aesthetics or poetics, his thinking is speculative and auto-pedagogical; his aim is “to make things clear to himself” about composition (*HL*, 417).<sup>13</sup> Schoenberg first articulates his vision of an overarching theory of composition in a letter to Emil Hertzka in 1911.<sup>14</sup> *Harmonielehre*, published in 1911, represents the first component; it not only explains the laws of traditional harmony but also indicates their evolutionary origin and artistic function. The fragment *Zusammenhang, Kontrapunkt, Instrumentation, Formenlehre*, written in 1917, represents a sketch of the remaining components, with the notion of coherence serving as a unifying element. The concept of the musical idea plays the same role in the *Gedanke* manuscripts, which were written ca. 1923–36 and are particularly concerned with the presentation of the musical idea, or form. Neff (1993b) has demonstrated how the majority of Schoenberg's theoretical writings are connected with this grand project.

Although Schoenberg's musical thought develops over time, and his writings represent various degrees of completion, his fragmentary theory of composition also exhibits a certain fractured unity. In order to explicate components of this theory, I mainly treat his writings as a unified corpus, but I also address a significant fissure regarding consonance and dissonance. This wide-angle view of Schoenberg's thought is not maximally fine-grained, but it reveals a certain wholeness that would not be visible otherwise. As Schoenberg says, “We must be at some distance from an object if we are

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<sup>13</sup> According to Cross, this aim is foremost in the *Gedanke* manuscripts; see Schoenberg 2007, 164.

<sup>14</sup> Arnold Schoenberg, letter to Emil Hertzka, dated July 23, 1911 (Arnold Schönberg Center, <http://www.schoenberg.at>); see also Arnold Schoenberg, “The Musical Idea; Its Presentation and Elaboration” (T37.06, n.d.), in Schoenberg 2007, 187. Cross (1994) has found that Schoenberg already sketches ideas for a theory of composition at the turn of the century.

to see it as a whole; up close we see just individual features, only distance reveals the general ones” (*HL*, 330). To put things another way, I aim here at what Schoenberg would describe as an artistic rather than a scientific reading of his writings. He contrasts science with art in that “science must explore and examine all facts; art is only concerned with the presentation of characteristic facts.”<sup>15</sup>

To gain perspective on Schoenberg’s theory of composition, I avail myself, as I have done elsewhere (Arndt 2011), of the theories of conceptual blending and conceptual metaphor. Gilles Fauconnier, Mark Turner, and others have argued that conceptualization involves a basic cognitive operation called blending or integration, which is the dynamic combination of cognitive units called mental spaces.<sup>16</sup> In a blend or integration network, two or more input spaces, some of whose elements are connected by analogy, representation, identity, or other relations, project structure into a blended space, where the new configuration of elements gives rise to emergent structure, which can in turn be projected back into the input spaces or used for further blends. For example, Rafael E. Núñez (2005) has analyzed the concept of an infinity as a blend of the notions of a completed iterative process and an endless iterative process, as shown in Example 1. These processes are nearly identical, except that the former has an end and a final state, whereas the latter has no end. An infinity combines these qualities, paradoxically having a final state but no end. George Lakoff and Núñez (2000, 155–80) originally analyzed the concept of an infinity as a conceptual metaphor, which they understood as a mapping of structure from a more concrete cognitive domain to a more abstract domain—in this case, a mapping from the domain of completed iterative processes to that of endless ones. Lakoff, Mark Johnson, and others have argued that all concepts are metaphorical in this sense and ultimately based on image schemas, which are patterns of objects and forces abstracted from bodily experience, such as part-whole, center-periphery, or source-path-goal.<sup>17</sup> Fauconnier and Turner (2008) acknowledge the importance of conceptual metaphors and image schemas; however, they have shown that the notion of cross-domain mapping cannot account for the full variety of emergent structure in concepts. In the case of the concept of an infinity, it cannot account for the concept itself as distinct from a modified concept of an endless iterative process. In the field of music, Lawrence M. Zbikowski and others have applied conceptual blending theory to

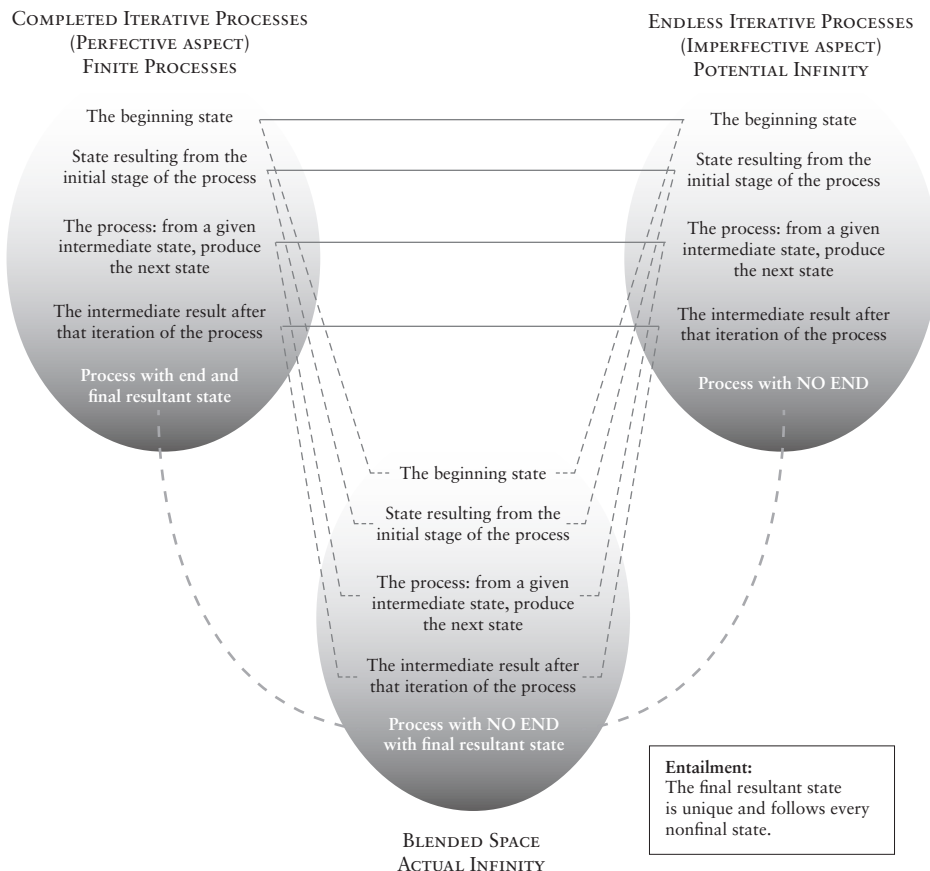
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<sup>15</sup> Arnold Schoenberg, “Brahms the Progressive” (1947), in *SI*, 399; see also *MI*, 115.

<sup>16</sup> See especially Fauconnier and Turner 2002; and Fauconnier and Turner [1998] 2010. See Turner 2012 for an extensive bibliography.

<sup>17</sup> See especially Lakoff and Johnson 1980; Johnson 1987; and Lakoff and Johnson 1999.





**EXAMPLE 1**

The basic mapping of infinity (Núñez 2005, 1730, fig. 5)

the analysis of musical meaning.<sup>18</sup> Michael Spitzer, Janna K. Saslaw, and others have analyzed conceptual metaphors and image schemas in historical music theories, including those of Schoenberg.<sup>19</sup>

<sup>18</sup> See for example Zbikowski 1999; Cook 2001; Zbikowski 2002; Zbikowski 2002–2003; Sayrs, 2003; Bauer 2004; Johnson 2004; Bhogal 2006; and Zbikowski 2008.

<sup>19</sup> See for example Saslaw 1996; Saslaw 1997–1998; Urista 2001, 66–94 and 111–19; Zbikowski 2002, 126–30 and 317–18; Spitzer 2003; Spitzer 2004; and Gur 2008.

### The Tone as an Idea of Nature

For Schoenberg, the tone is an idea of nature that is only partially manifest in the natural world through the artist's partially conscious perception. This partial manifestation constitutes a problem that the artist ideally solves by imitating the tone in the musical work, thereby bringing it to consciousness.

As I have argued elsewhere (Arndt 2011), Schoenberg's theory of composition, at least at the time of *Harmonielehre*, is based in part on his conception of the tone as a living idea of nature that manifests itself incompletely in the natural world and more fully in the musical work. In essence, the tone is "a composite, made up of a series of tones sounding together, the overtones; hence, it forms a chord" (*HL*, 23).<sup>20</sup> (Note that Schoenberg uses the term "overtones" as a synonym for "partials.") But in its phenomenon, the tone is just a tone, more or less. Consequently, the tone has a problem that is the source of all further problems in music: how to manifest its true nature. In other words, there is a dialectical opposition to be overcome between the tone in its ideality and in its reality.<sup>21</sup>

The tone's manifestation for Schoenberg is mediated by the artist's perception of the tone—where manifestation corresponds with conscious analysis and latency corresponds with unconscious perception—and by his imitation of the tone. The artist, then, is distinguished not by his individuality but by his receptivity. Schoenberg says that the artist "hears that which is common to all, and what it is that sets him apart from the others is perhaps not how he hears it, but *that* he does in fact hear it" (*HL*, 413). The artist perceives the tone only partially consciously: the closer overtones are consciously analyzed as pitched tones, whereas the more remote overtones are perceived unconsciously and leave a trace only as tone color. According to Schoenberg: "The world of feeling somehow takes into account the entire complex, hence the more distant overtones as well. Even if the analyzing ear does not become conscious of them, they are still heard as tone color. That is to say, here the musical ear does indeed abandon the attempt at exact analysis, but it still takes note of the impression. The more remote overtones are recorded by the subconscious, and when they ascend into the conscious they are analyzed and their relation to the tone as a whole is determined."<sup>22</sup> Tone color, then, is the primary mode of

<sup>20</sup> Schoenberg reaffirms the composite nature of the tone in "Problems of Harmony" (1934), in *SI*, 271; "Attempts of Writing a New Textbook of Harmony" (T38.04, ca. 1937), in Schoenberg 1998, 24; and "Tonality" (T75.11–12, n.d.), in Jacob 2005, 2:817.

<sup>21</sup> To a certain extent, this dialectic reflects a modern hybrid understanding of the tone. According to Fahlbusch (2007, 110), for Schoenberg "the musical tone is understood not as immediate sensation, nor as mathematical measurement, but rather in the tradition of modernity, particularly since the eighteenth century, as harmonic tone [*Klang*], wherein the mathematical moment is combined with the experiential moment."

<sup>22</sup> *HL*, 18–19/21; translation of "Gesamtklang" changed to "tone as a whole."

appearance of the tone and pitch is simply the portion of tone color that is analyzed or measured with respect to height. As Schoenberg explains, “The tone becomes perceptible by virtue of tone color, of which one dimension is pitch. Tone color is, thus, the larger domain, of which pitch is a region. Pitch is nothing else but tone color measured in one direction.”<sup>23</sup> The unclear overtones present problems to the artist; they demand further analysis, which takes place in and through imitation of the tone. In Schoenberg’s words, “Our relation to this prototype [the tone] is that of the analyst, of the seeker; in imitating it we discover more or fewer of its truths. The creative spirit strives for more, more and more; those who merely seek enjoyment are satisfied with fewer. Between this More and this Fewer the battles of art are fought” (*HL*, 319). More specifically, as Alfred Cramer (2002) has demonstrated, imitation of the tone involves imitation of tone color with pitched tones; for example, widely spread chords can produce “the image of...more remote overtones” (*HL*, 418). While the artist struggles to analyze the tone, the tone is perpetually revealing new depths of itself to the sensitive artist, new tints of tone color. In this regard, Schoenberg speaks of “the tendency of the unheard to reveal itself.”<sup>24</sup> In these two ways, the artist’s perception of the tone evolves over time.

Throughout his career, Schoenberg continues to affirm the notion that the tone is the content and substance of all music, including twelve-tone music, that “all musical phenomena can be referred to the overtone series.”<sup>25</sup> In the manifesto-like opening of the essay “Problems of Harmony,” Schoenberg states that the tone offers ever-new musical ideas, whose problems demand ever-new musical techniques (read: twelve-tone composition):

The cause of music demands, as the history of art-battles shows, that the secret of the sounding tone be always pursued anew. The development of music is more dependent than any other art upon the development of its technique. A truly new idea—at least as musical history reveals—is hardly imaginable without significant changes in musical technique. The material of music offers inexhaustible possibilities; but every new possibility in turn demands a new kind of treatment, because it presents new problems or at any rate demands a new solution of the old one. Every tonal progression, every progression of even two tones, raises a problem which requires a special solution.<sup>26</sup>

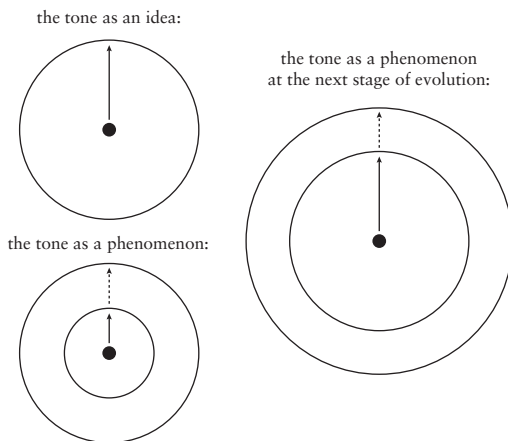
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<sup>23</sup> *HL*, 471/421; translation of “große Gebiet, ein Bezirk davon die Klanghöhe” changed to “larger domain, of which pitch is a region.”

<sup>24</sup> *HL*, 450/403; translation of “des Unerhörten” changed to “the unheard.”

<sup>25</sup> Schoenberg, “Problems of Harmony,” in *SI*, 271.

<sup>26</sup> *Ibid.*, in *SI*, 269.

**EXAMPLE 2**

The tone

This passage echoes Schoenberg's statements about needing to account for the tone again and again and fighting to discover its truths, as well as his remarks about every progression of two tones presenting a problem.

Schoenberg's conception of the tone is structured by the image-schematic complexes shown in Example 2. The tone in its essence (shown at the top left of Example 2) is underwritten by a combination of a container, a part-whole, a center-periphery, and a source-path-goal schema, as well as a verticality schema. The ground tone (the fundamental) is a central part (shown as the point) that produces and becomes the tone as a peripheral container and whole (shown as the circle).<sup>27</sup> Schoenberg refers to the overtones as peripheral "emanations of the tone" (*HL*, 20), and he treats this periphery as a container and whole: "In the tone,...which is indeed composite, the lowest tone is recognized as the one that begets the whole complex, the one for which the total phenomenon is named."<sup>28</sup> Procreation is movement along the path (shown as the arrow). Since the ground tone encompasses its offspring, this procreation of the tone is also the development or growth of the ground tone. This development is then also movement along the path, "for life is: movement."<sup>29</sup> This path has a "vertical" orientation (*HL*, 23), leading from the restful, close overtones to the unrestful, remote overtones.<sup>30</sup> "The distance

<sup>27</sup> According to Turner (1987, 27), the whole is often thought of as a container.

<sup>28</sup> *HL*, 65/56–57; translation of "erzeugt" changed to "begets."

<sup>29</sup> *HL*, 365/326; translation of "Bewegung" changed to "movement."

<sup>30</sup> Candace Brower (2000) has pointed out how in tonal music in general, the verticality schema correlates stability with height in the tone, the chord, and the key.

from the ground tone” is distance along the path.<sup>31</sup> Procreation and development involve contrasting interpretations of the source-path-goal schema. In procreation, the whole is the trajector (the thing that moves along the path), whereas in development, the part is the trajector. The tone as a phenomenon (shown at the bottom left of Example 2) adds to this image-schematic complex a nested-container and a blockage schema. The manifest or conscious portion of the tone, the portion “within reach of the ear”<sup>32</sup> that the ear can “assimilate” as “euphonious” (*HL*, 21), is contained by the inner circle, whereas the latent or unconscious portion is contained by the outer circle. Manifestation, corresponding with conscious analysis of tone color as pitch, is the actual movement (shown as the solid arrow), working its way up through the overtone series, and latency, corresponding with unconscious perception, is the potential movement (shown as the dotted arrow). A problem in the tone is the blockage (shown as the inner circle), where the tone is unable to manifest itself further and correspondingly “the ear...abandon[s] the attempt at exact analysis” (*HL*, 20). At the next stage of the evolution of perception (shown at the right of Example 2), the ear will “expand the conception of what is euphonious, suitable for art,”<sup>33</sup> and the phenomenon as a whole will also expand.

### The Means of Art

For Schoenberg, imitation of the tone employs “the means of art” (*HL*, 413) in accordance with their inherent laws of usage, “the *real* ones, not the exaggerations of orthodoxy” (*HL*, 329). The means of art are made up of consonances and dissonances. Through repeated exposure, problematic dissonances or unclear overtones can be emancipated and become consonances, a process that Schoenberg describes in his earlier writings as perpetual and in his later writings as completed.

As we saw earlier, consonances are the closer, clearer, more restful overtones, whereas dissonances are the more remote, obscure, unstable overtones. It is important to note, however, that while all the means of art are overtones, not all the overtones are necessarily means of art at a given moment in history. The identity between tones and overtones means that the dialectical opposition within nature of the tone to itself in its ideality and in its reality reproduces itself within art in the dialectical opposition of consonances and dissonances: in reality, consonances are “free” as to their appearance,

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<sup>31</sup> *HL*, 20/21; translation of “Grundton” changed to “ground tone.”

<sup>32</sup> Schoenberg, “Attempts of Writing a New Textbook of Harmony,” in Schoenberg 1998, 24. Here Schoenberg actually designates only the ground tone as within reach of the ear, but it is likely that he is simplifying matters for pedagogical purposes.

<sup>33</sup> *HL*, 19/21; translation of “erweitern” changed to “expand.”

whereas dissonances are “restricted” in that they require resolution (*HL*, 320), but they can ideally become familiar through their repeated appearance and so be “emancipated” (*HL*, 323). Schoenberg writes, “Dissonances are nothing else but more remote consonances whose analysis gives the ear more trouble on account of their remoteness; but once analysis has made them more accessible, they will have the chance of becoming consonances just like the closer overtones” (*HL*, 66). Accordingly, there is also a more abstract dialectical opposition between nature and art: in emancipating dissonances, art becomes more like nature while nature through art becomes more like its true self. According to Schoenberg, the distinction of consonance and dissonance “simply depends on the growing ability of the analyzing ear to familiarize itself with the remote overtones and therewith to expand the conception of what is euphonious, suitable for art, so that it embraces the whole phenomenon given by nature.”<sup>34</sup>

As Stephen Hinton (2010) and I have both pointed out (Arndt 2011, 122–23), Schoenberg shifts from conceiving of the process of emancipating dissonances as perpetual to conceiving of it as completed, in keeping with what Hinton describes as a shift from writing music in which dissonances are expressive to writing twelve-tone music, in which dissonances are constructive. Although Schoenberg aims at emancipating all dissonances in the *Harmonielehre*, he evidently does not think that this has happened: “Even today, I feel that here, too, there are certain conditions on which my choice of this or that dissonance depends” (*HL*, 70). Emancipating dissonances or expanding the class of consonances involves revealing the laws governing new harmonic means to be “the same laws that obtained in the older harmony, only correspondingly broader, more generally conceived” (*HL*, 70). Such systematization requires observation of the effects of the new means in musical works over time; it cannot “go ahead of the works, prescribing a path for them that they will perhaps never take” (*HL*, 331). Since “there are no limits to the possibilities of tones sounding together, to harmonic possibilities” (*HL*, 322), there is no end to the process of emancipating dissonances. This perpetuity is in keeping with the inexhaustibility of the tone. To quote Schoenberg, “What is attainable in that which lies outside us, in the tone, theoretically speaking, has no limits.”<sup>35</sup> In his later writings dealing

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<sup>34</sup> “Hängt nur von der wachsenden Fähigkeit des analysierenden Ohrs ab, sich auch mit den ferliegenden Obertönen vertraut zu machen und damit den Begriff des kunstfähigen Wohlklanges so zu erweitern, daß die gesamte naturgegebene Erscheinung darin Platz hat” (*HL*, 19/21; translation modified). Also relevant here is Schoenberg’s aphorism: “Unnaturalness—that which is contrary to nature, beyond nature—is only disagreeable when it becomes a habit: but then it is naturalness again.” “Nur wenn die Unnatürlichkeit—das Widernatürliche, Übernatürliche—zur Gewohnheit wird, ist sie unsympathisch: dann ist sie wieder Natürlichkeit.” Schoenberg [1909–1910] 2003, 160/65.

<sup>35</sup> “Das Erreichbare im außer uns Liegenden, im Ton, hat, theoretisch genommen, keine Grenzen” (*HL*, 357/319; translation modified).

with twelve-tone music, however, Schoenberg introduces the term “the emancipation of the dissonance” to refer to a completed process.<sup>36</sup> As Robert Falck (1982) has pointed out, Schoenberg describes this emancipation in conflicting ways, placing increasing emphasis on his own role and the role of theory (prescribing a path for music) as opposed to that of composition. At times, Schoenberg (1974, 83) describes the emancipation of the dissonance as the equality of all dissonances under the law, based on the assumption that they are equally comprehensible: “The emancipation of dissonances allows for their completely free use by virtue of the assumption that they no longer today afford the trained hearer any perceptual difficulties.” Although this description is at odds with his earlier writings, it is nonetheless a consequence of the identity of tones and overtones: if pitch is the mode of appearance of clearly perceived overtones, then consonances and dissonances must be equally comprehensible, because they both have pitch. But at other times, Schoenberg describes the emancipation of the dissonance as being based on the assumption that “the comprehensibility of the dissonance can be ensured, given certain favourable circumstances.”<sup>37</sup> This description is more in keeping with his earlier writings. In either case, “the law of the emancipation of the dissonance” is tied to twelve-tone music,<sup>38</sup> for it is through this law that “the appearance of dissonances is regulated” in this music.<sup>39</sup> The tangled issue of the emancipation of the dissonance is tied up with that of tonality, so we will revisit the former when we address the latter.

Schoenberg’s conception of the means of art is structured by the image-schematic complexes shown in Example 3, which are identical to those for the tone as a phenomenon, for again consonances and dissonances are overtones. The consonant overtones are contained by the inner circle, whereas the dissonant overtones are contained by the outer circle. Schoenberg distinguishes consonances and dissonances as “close” and “remote” and distinguishes amongst consonances as also amongst dissonances as “direct” or “indirect,” which again means “more or less close” (*HL*, 320). The full or partial “accommodation of...overtones” in the system (*HL*, 319) is the actual or potential movement respectively (shown with the solid or dotted arrow). The consonances are fully accommodated, but the dissonances are not; “they are only superficially annexed to the old system” (*HL*, 330). According to Schoenberg, “the evolution of music” (*HL*, 21) has proceeded through the

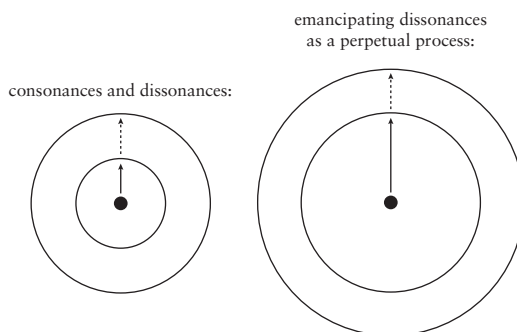
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<sup>36</sup> Schoenberg, “Opinion or Insight?” in *SI*, 258.

<sup>37</sup> *Ibid.*, in *SI*, 261.

<sup>38</sup> Arnold Schoenberg, “My Evolution” (1949), in *SI*, 91.

<sup>39</sup> Arnold Schoenberg, “Composition with Twelve Tones (2)” (ca. 1948), in *SI*, 247. Twelve-tone composition itself is not a law or a system but a method; see Arnold Schoenberg, “Schoenberg’s Tone Rows” (1936), in *SI*, 213, and Arnold Schoenberg, “Composition with Twelve Tones (1)” (1941), in *SI*, 218.



**EXAMPLE 3**  
The means of art

overtone series more or less in ascending order, beginning with the unison (the ground tone) and proceeding to the octave (the second partial), the fifth (the third partial), and the third (the fifth partial) (see *HL*, 65–67). The limits of the system (shown with the inner circle) “impede” this evolution (*HL*, 25). The system based on the major scale accommodates the first six partials, whereas the system based on the chromatic scale accommodates the first thirteen.<sup>40</sup> The perpetual process of emancipating dissonances (shown at the right of Example 3), wherein we “receive these sounds into the system as members with equal rights and privileges” (*HL*, 322), involves expanding the nested container so that more overtones are classed as consonances, while the introduction of new dissonances involves expanding the whole. The completed process of emancipating dissonances, the assumption that they are just as comprehensible as consonances, simply involves regarding the potential movement of accommodation as somehow actual.

### The Musical Work

For Schoenberg, imitation of the tone in a particular musical work is imitation of one particular tone, the ground tone (the tonic), which is the musical idea in its material aspect. Manifestation or presentation of the musical idea involves variation of the motive or the *Grundgestalt*, an image of the musical idea, a process that solves a problem of unclear relations of tones to the ground tone through the self-assertion or the self-denial of the ground tone.

As I have argued elsewhere (Arndt 2011, 123), the musical idea for Schoenberg, the idea for a “tone piece,” is a particular tone as an idea, which is the ground tone of

<sup>40</sup> See Schoenberg, “Problems of Harmony,” in *SI*, 271.



the piece (the tonic).<sup>41</sup> The reader may balk at this claim, because Schoenberg for the most part stops writing tonal music around 1908, and because Schoenberg (1974, 77) himself characterizes this development as “the abandonment of a tonal center,” or he says that his music “renounces a tonal centre.”<sup>42</sup> However, when Schoenberg speaks of renouncing a tonal center, he is referring more specifically to “the negation of a tonal centre’s domination,”<sup>43</sup> not to the absolute absence of a ground tone. So while I agree with Ethan Haimo (2006, 6) that most of Schoenberg’s post-1908 compositions do not feature “referential tonal centers,” I would hasten to add that they do feature *non*-referential tonal centers. To understand this subtle but vital point, we need to recognize that tonality, the perceptible relation of all tones to a ground tone, is not opposed to atonality, a concept that both Schoenberg and Haimo reject, but rather to the *imperceptible* relation of all tones to a ground tone.<sup>44</sup> More specifically, tonality, which can be “extended” through the inclusion of more distant tones,<sup>45</sup> lies at one end of a spectrum of effects that leads through “fluctuating tonality” to “suspended tonality,” incorrectly called atonality (HL, 383), which is to say that one can “blur” “the relation to the ground tone,”<sup>46</sup> or one can “leave the question entirely open” of which tone is the ground tone.<sup>47</sup> Schoenberg says that fluctuating tonality and suspended tonality “also permit the supposition of an operative center, but they show how it is not necessary to help this center attain externally a power that it has, at most, internally.”<sup>48</sup> In other words, one can assume that

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<sup>41</sup> “Tonstück” (HL, 18/20).

<sup>42</sup> Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 217.

<sup>43</sup> *Ibid.*, in *SI*, 244.

<sup>44</sup> See *HL*, 432, quoted below; and Haimo 2006, 1–6.

<sup>45</sup> *HL*, 29; and *SF*, 76.

<sup>46</sup> “Zu verwischen” “die Beziehung auf den Grundton” (HL, 146/128).

<sup>47</sup> “Diese Frage ganz offen zu lassen.” *HL*, 146/128. I follow Carter’s translation of “schwebende Tonalität” and “aufgehobene Tonalität” as “fluctuating tonality” and “suspended tonality” respectively in his translation of *Harmonielehre*. In *Structural Functions of Harmony* (*SF*, 111), Schoenberg renders “schwebende Tonalität” as “suspended tonality,” and he does not mention *aufgehobene Tonalität*. With the exception of Jacob (2000, 13) and Richard Kurth (2000; and 2001), Schoenberg’s interpreters seem not to have perceived the identity between *aufgehobene Tonalität* and what has been called atonality. Roy E. Carter suggests that “what Schoenberg calls ‘roving harmony’ in his later book...conforms to his description here of *aufgehobene Tonalität*” (HL, 383n1). But roving harmony features all kinds of chords, whereas *aufgehobene Tonalität* “will involve almost exclusive use of explicitly vagrant chords” (HL, 384), that is, inherently ambiguous chords. Bryan R. Simms (2000, 24) similarly suggests that Schoenberg found *aufgehobene Tonalität* “especially characteristic of music by Bruckner and Wolf.” But Simms does not mention that in the same breath, Schoenberg says examples of *aufgehobene Tonalität* “are easy to find in the works of modern composers” (HL, 384)—that is, composers such as himself.

<sup>48</sup> “Auch die annahme eines wirkenden Zentrums zulassen, aber zeigen, wie es nicht notwendig ist, diesem

a piece of music is generated by a ground tone, even if one does not “prove the lineage of the chords from the progenitor.”<sup>49</sup> Schoenberg writes, “The postulate that everything emanates from the tone can easily forgo demonstration, since one is constantly reminded of it anyway by every tone.”<sup>50</sup>

Schoenberg’s spectrum of effects from tonality to suspended tonality maps roughly onto the evolution of music from the adoption of major and minor keys to the adoption of the chromatic scale and to the total emancipation of the dissonance and twelve-tone composition, which, as Richard Kurth (2000, 154) has argued, is “a way of ensuring the suspension of tonality.”<sup>51</sup> The oppositions between the two ends of the spectrum and between the two ends of the evolution reflect a dialectical “contradiction” in the tone’s urge for manifestation in harmony (*HL*, 116n).<sup>52</sup> On the one hand, “in an earlier stage” (*HL*, 116n), the tone seeks to “propagate itself” (*HL*, 313), to “impose its own overtones” (*HL*, 385), “to become and remain the ground tone” (the root).<sup>53</sup> But on the other hand, at a later stage, the tone’s “most urgent yearning” (*HL*, 50) is to “lose itself in, to become part of a higher entity” (*HL*, 116n), “to serve a cause greater than its own” (*HL*, 49), “to be overpowered, to be overcome by a ground tone a fifth below.”<sup>54</sup> And on a broader level, the ground tone (the tonic) can assert its “sovereignty over the structures emanating from it” (*HL*, 128), producing tonality, or it can see that “everything designated as good for its subjects serves only its own interests” and sacrifice itself (*HL*, 152), producing suspended tonality. In the words of Andreas Jacob, Schoenberg derives “the negation of one definite ground tone from the essence of the ground tone itself, which here finds its fulfillment in annulment, so to speak.”<sup>55</sup> Ironically, then, as the artist works to “fulfil the

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Zentrum äußerlich zu einer Macht zu verhelfen, die es höchstens innerlich hat” (*HL*, 440n/394n–395n; translation modified); see also Arnold Schoenberg, “My Evolution” (1949), in *SI*, 86. Robert P. Morgan (2010) has likewise argued that fluctuating tonality still involves a single main key, even though it can also feature a continual conflict between two keys.

<sup>49</sup> “Ihre Abstammung vom Urahn...erweisen” (*HL*, 146/128).

<sup>50</sup> “Diese Voraussetzung: der Ton ist es, von dem das alles ausgeht, kann ja ruhig in der Luft schweben, da man bei jedem Ton ohnehin vom neuen daran erinnert wird” (*HL*, 146/128; translation modified).

<sup>51</sup> On the suspension of tonality in twelve-tone music, see Schoenberg, “Composition with Twelve Tones (2),” in *SI*, 246.

<sup>52</sup> In other words, “the conditions leading to the dissolution of the system are inherent in the conditions upon which it is established” (*HL*, 29).

<sup>53</sup> *HL*, 133n/116n; translation of “Grundton” changed to “ground tone.”

<sup>54</sup> *HL*, 55/49; translation of “Grundton” changed to “ground tone.”

<sup>55</sup> Jacob 2000, 14.

purpose...of creating the truest possible imitations of the [natural] material” (*HL*, 313), “inference of the external stimulus is almost certain to be inadequate” (*HL*, 18); that is to say, the particular tone being imitated becomes unidentifiable, because it thereby fulfills its urge to lose itself in a higher entity, and it becomes “a mere speck in the infinite” (*HL*, 225), like one whose love extends across the universe.

Since tonality for Schoenberg is a matter of perceptibility, whether a piece of music is tonal depends not on the presence of tonic-directed melodic and harmonic progressions, as we might be inclined to think, but on the evolution of perception: “Tonal is perhaps nothing else than what is understood today and atonal what will be understood in the future.”<sup>56</sup> Accordingly, Schoenberg also uses the term “tonality” more broadly to denote “the particular way in which all tones relate to a ground tone,”<sup>57</sup> regardless of whether this relation is perceptible. In this sense, there is just a difference between pieces of music “in the emphasis or non-emphasis on the tonality,” such that even twelve-tone music is tonal.<sup>58</sup> This point is evident in Schoenberg’s protest against the term “atonal”:

Everything implied by a series of tones (*Tonreihe*) constitutes tonality, whether it be brought together by means of direct reference to a single ground tone or by more complicated connections. That from this single correct definition no reasonable opposite corresponding to the word “atonality” can be formed, must be evident. Where could the negation be introduced? Is it that *not all* implications of a series of tones, or *not any*, should characterize atonality? A piece of music will always have to be tonal, at least in so far as a relation has to exist from tone to tone by virtue of which the tones, placed next to or above one another, yield a perceptible continuity. The tonality may then perhaps be neither perceptible nor provable; these relations may be obscure and difficult to comprehend, even incomprehensible. Nevertheless, to call any relation of tones atonal is just as farfetched as it would be to designate a relation of colors as spectral or a complementary. There is no such antithesis. Besides, there has been no investigation at all of the question whether the way these new sounds go together is not actually the tonality of a twelve-tone series. It is indeed probably just that, hence would be a phenomenon paralleling the situation that led to the church modes, of which I say: “The effect of a ground tone was felt, but since no one knew which tone it was, all of them were tried.” Here we do not even feel it, but it is therefore probably present.<sup>59</sup>

<sup>56</sup> Schoenberg, “Problems of Harmony,” in *SI*, 284.

<sup>57</sup> Arnold Schoenberg, “Probleme der Harmonie” (T69.12, n.d.) (Arnold Schönberg Center, <http://www.schoenberg.at>), trans. as “Problems of Harmony,” in *SI*, [2v]/270; translation of “Grundton” changed to “ground tone.”

<sup>58</sup> *Ibid.*, in *SI*, 284. At times, Schoenberg uses the term “key” in an equally broad sense to mean everything produced by the ground tone. In notes for “Problems of Harmony,” Schoenberg contrasts “a key-emphasizing method of composition” with “a style that leaves the key unemphasized.” “Einer tonartbetonenenden Kompositionsweise” with “eines Stils der die Tonart nicht unbetont läßt.” “Probleme der Harmonie (Notizen),” in Jacob 2005, 2:782. In light of such statements, Simms (2000, 21) probably goes too far when he claims that Schoenberg “repeatedly emphasized that [his post-1908 music] had no key.”

<sup>59</sup> *HL*, 3<sup>rd</sup> ed., 487n–488n/432; translation of “Grundton” changed to “ground tone.” Carter inserts a bracketed

Schoenberg's claim that twelve-tone music is tonal, that all the tones relate to a ground tone, seems at odds with his characterization of twelve-tone composition as "composition with 12 tones related only to one another," which he contrasts with "root-related and tonally related harmony."<sup>60</sup> However, these descriptions concern the relations that the music permanently refers to, not the relations that exist. As he puts it, "The method of composing with twelve tones substitutes for the order produced by permanent reference to tonal centres an order according to which every unit of a piece, being a derivative of the tonal relations in a basic set of twelve tones, the 'Grundgestalt,' is coherent because of this permanent reference to the basic set."<sup>61</sup> "The relation of all tones to one another" in twelve-tone music is not really independent but is rather "assured by the circumstance of a common origin," which is the ground tone.<sup>62</sup> Or again: "Tones are related through their common relation to the ground tones that represent what is the same in them."<sup>63</sup>

If the ground tone for Schoenberg is the musical idea in its material aspect, then what are the other aspects? As Cross (1980) has pointed out, Schoenberg distinguishes three levels of the idea. He also identifies three levels of its presentation:

The idea of a piece of music is

- |                        |  |
|------------------------|--|
| 1) in its conception   | a) purely material<br>c) psychological<br>b) metaphysical              |
| 2) in its presentation | a) logical<br>c) psychological<br>b) metaphysical (Schoenberg 1994, 5) |

Materially or objectively speaking, the idea is the ground tone. Psychologically or subjectively speaking, the idea is the perception of the tone with its ever-new depths of tone color, which represents the artist's unique being in the present historical moment. According to Schoenberg, the artist must "express something new and [previously]

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question mark after "therefore," thereby indicating that it is unclear to him how the imperceptibility of the ground tone can indicate its presence. It is clear enough, however, that the mark of a self-effacing ground tone is a blank.

<sup>60</sup> Schoenberg 1974, 73; capitals suppressed.

<sup>61</sup> Schoenberg, "My Evolution," in *SI*, 91; commas adjusted.

<sup>62</sup> Schoenberg, "Problems of Harmony," in *SI*, 284.

<sup>63</sup> "Töne sind verwandt durch ihre gemeinsame Beziehung auf die Grundtöne, welche das Gleiche in ihnen representiert" (*MI*, 146/147).

unheard that moves him.”<sup>64</sup> In this sense, the musical idea is an artistic “vision.”<sup>65</sup> Metaphysically speaking, the idea, to be brief, “connects us with *the universe, with nature,*” through the medium of “pure feeling” (*HL*, 401); it connects us with “the spirit of mankind” (*HL*, 411). Schoenberg relates these levels as follows: “The material of music is the tone; what it effects first, the ear. The sensory perception releases associations and connects tone, ear, and the world of feeling. On the cooperation of these three factors depends everything in music that is felt to be art” (*HL*, 19).<sup>66</sup>

As a tone perceived at a particular historical moment, the musical idea for Schoenberg has a certain limiting depth in the overtone series, and to reveal this depth through imitation of the tone is in a sense the goal of the musical work. This depth seems to be what Schoenberg has in mind when he writes, “It is indeed not improbable (perhaps it is even certain) that inherent in every idea and in the way it is elaborated there is something that indicates boundaries to be reached but not overstepped” (*HL*, 127). Imitation of the tone takes place in (at least) the horizontal and vertical dimensions, forming an image.<sup>67</sup> In the abstract, these dimensions are filled out by scales and chords respectively. As Schoenberg explains, “If the scale is imitation of the tone in the horizontal direction, in succession, then chords are imitation in the vertical, in simultaneity.”<sup>68</sup> Or, since imitation is procreation, “Chords are the vertical product of the overtones, but the scale is the horizontal product” (Schoenberg 1974, 83). In the case of a particular musical idea, these dimensions are filled out by rhythmicized melodic and harmonic progressions respectively. To quote Schoenberg, “A musical idea..., though consisting of melody, rhythm, and harmony, is neither the one nor the other alone, but all three together. The elements of a musical idea are partly incorporated in the horizontal plane as successive sounds, and partly in the vertical plane as simultaneous sounds.”<sup>69</sup> The planes here are more precisely dimensions of a single plane. For him, “the task in the evolution of music” is “presenting an idea in all its deepest and richest consequences in such a way that all the individuality that arises from it becomes visible on a multiform surface: projected on

<sup>64</sup> “Neues, Unerhörtes, das ihn bewegt, auszudrücken” (*HL*, 447/400).

<sup>65</sup> Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 215.

<sup>66</sup> See also Schoenberg’s definition of music given in Stuckenschmidt 1977, 383.

<sup>67</sup> On the musical work as an image of the tone, see Arndt 2011, 129–34.

<sup>68</sup> “Ist die Skala die Nachahmung des Tons in der Horizontalen, im Nacheinander, so sind die Akkorde Nachahmung in der Vertikalen, im Miteinander” (*HL*, 26/26).

<sup>69</sup> Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 220.

a plane, so to speak.”<sup>70</sup> The notion of the presentation as a multiform surface relates to thinking of it in terms of the articulation of a body:

Articulation (*Gliederung*) is necessary for every idea, the moment it is expressed; for, although we think an idea at once, as a whole, we cannot say it all at once, only little by little: we arrange the different components in succession, components into which we divide up the idea differently from the way we put it together, and thereby reproduce more or less precisely its content. In music we regard melodic or harmonic progressions as the components of an idea. That notion is correct, however, only as it applies to what is visible or audible, to those aspects of music that can be directly perceived by the senses; it applies only by analogy to that which makes up the actual content of a musical idea. But we may still assume that the image of the notes provides a successful symbol of the musical idea, and that the form and articulation manifested by the notes corresponds to the inner nature of the idea and its movement, as the ridges and hollows of our bodies are determined by the position of internal organs—as indeed the external appearance of every well-constructed organism corresponds to its internal organization, hence the native external appearance is not to be regarded as accidental.<sup>71</sup>

Schoenberg describes not only the musical idea together with its presentation, but also the presentation itself as “a living central and whole body that puts forth a certain number of members, by means of which it is able to exercise its vital functions.”<sup>72</sup> In both cases, the ground tone is this central and whole body. The ground tone thrives and ideally manifests its full depth by procreating and developing into a piece of music. But even if the ground tone manifests its full depth, it almost never perfectly and conclusively manifests the tone in general, which continues to deepen in the artist’s ear while he is composing. As Schoenberg explains, “It is difficult, yes, almost impossible to fashion an absolutely compelling and final close,” because the “boundaries to be reached but not overstepped” are “not in [the musical idea] alone, but in ourselves as well..., keeping up with the spirit of the times” (*HL*, 127). There is almost always a sliver of tone color unaccounted for by the music, which means that “the ratio of the artist to his work”<sup>73</sup> is almost always unequal. This circumstance lies behind the following aphorism: “A disheartening fact: purity is impurity attenuated to the utmost degree. These are indeed all only approximate

<sup>70</sup> “In der Entwicklung der Musik die Aufgabe, einen Gedanken in allen seinen tiefsten und reifsten Konsequenzen so darzustellen, dass alle die Einzelheit, die sich aus ihm ergeben an einer vielgestaltigen Oberfläche sichtbar werden: sozusagen auf eine Ebene projiziert.” Arnold Schoenberg, “Jede blinde Henne” (T03.42, n.d.) (Arnold Schönberg Center, <http://www.schoenberg.at>), 3.

<sup>71</sup> *HL*, 3<sup>rd</sup> ed., 346–47/289; translation of “das Notenbild ein glückliches Symbol für den musikalischen Gedanken abgibt” changed to “the image of the notes provides a successful symbol of the musical idea.”

<sup>72</sup> “Einen lebendigen Zentral- und Gesamtkörper..., der eine gewisse Anzahl von Gliedern absetzt, vermittelt welcher er seine Lebensfunktionen auszuüben vermag” (*MI*, 120/121).

<sup>73</sup> *HL*, 366/326; translation of “Verhältnis” changed to “ratio.”

values:  $0 = x - x$  or  $\infty - \infty$  or even  $x / \infty$ , and if we take them as only partially real, then there is always a remainder that compels acknowledgement: as little compromise as possible is the utmost that we can attain.”<sup>74</sup>

For Schoenberg, presentation of the musical idea, articulation into members, involves varied repetition, where one thing following from another signifies procreation and one thing changing into another represents development: “Repetition in music, especially when linked with variation, shows that *different things* can arise from *one* thing, through its development, through the musical vicissitudes it undergoes, through generating new figures.”<sup>75</sup> More specifically, presentation of the musical idea involves varied repetition of a basic motive or a *Grundgestalt*—a basic shape containing the piece’s motives—which thereby seems to generate the parts and develop into the whole.<sup>76</sup> As he puts it, “Everything within a closed composition can be accounted for as originating, derived, and developed from a basic motive or at least from a *Grundgestalt*” (*MI*, 135).<sup>77</sup> In this way, the motive or the *Grundgestalt* represents the musical idea or the ground tone, which actually generates everything.<sup>78</sup> The motive and its products are thus images of the whole, and their logically ordered appearance ideally serves to “show the idea from all sides” (*MI*, 97), translating the material aspect of the idea into the logical aspect of the presentation.<sup>79</sup> In other words, “Musical art...consists of

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<sup>74</sup> “Eine entmutigende Tatsache: Reinlichkeit ist bis ans äußerste verdünnte Unreinlichkeit. Das sind ja alles nur Näherungswerte:  $0 = x - x$  oder  $\sim - \sim$  oder sogar  $x / \sim$ , und nimmt man es nur einigermaßen materiell, so bleibt immer ein Rest, der zum Bekenntnis zwingt: möglichst wenig Kompromisse ist das Äußerste, was wir erreichen können.” Schoenberg [1909–1910] 2003, 162/66.

<sup>75</sup> Arnold Schoenberg, “For a Treatise on Composition” (1931), in *SI*, 266.

<sup>76</sup> For a thorough discussion of Schoenberg’s concept of the *Grundgestalt*, see Schiano 1992.

<sup>77</sup> In a well known letter to Federico Busoni, tentatively dated August 13, 1909, Schoenberg professes the intention to do away with “motive work.” “Motivischen Arbeit” (Arnold Schönberg Center, <http://www.schoenberg.at>). However, this intention is short-lived, and in any case, Schoenberg’s opposition may have been primarily to an overly narrow concept of the motive, for as Raff (2006, 64) has pointed out, “alongside the retraction of the notion of the ‘athematic’/‘amotive’ and the concomitant rehabilitation of the motive and thus motive work, at the same time a broadening of the concept of the motive becomes visible, which brings it to its limits,” namely the notion of a mere interval as a motive. On Schoenberg’s apparently athematic music, see Haimo 2010.

<sup>78</sup> At one point, Schoenberg floats a distinction between the main motive or main theme in “the old symphony,” which is identical with the musical idea and “functions as the *seed of the whole*,” and the main motive along with other motives in “the modern symphony,” which are subordinate to the musical idea and “function as *building blocks*,” in a sense paralleling the distinction between the referential ground tone in the old harmony and the non-referential ground tone in the new harmony. Arnold Schoenberg, [Draft for a lecture] (T73.17, n.d.), in Schoenberg 1993, 9 and 11. In general, however, Schoenberg denies that the main motive is fully identical with the musical idea, and so he asserts that the motive is always more of a building block than a seed (*MI*, 109).

<sup>79</sup> On the dialectical relation between the motive and the musical idea, see Carl Dahlhaus, “What Is ‘Developing Variation?’” (1984), in Dahlhaus 1987, 128–33.

producing large and small images, which cohere by means of this motive, which in their individual contents likewise cohere with it, and which are assembled so that the logic of the total image is as apparent as that of its single parts and of their combination” (*MI*, 149). In variation, “that form of repetition in which a number of the constituents are repeated without change, while a number of others are omitted and possibly replaced by different components” (*MI*, 155), the repetition allows the ear to become familiar with certain imitations of the tone, while the change brings further imitations predicated on the previous ones.<sup>80</sup> In this way, variation ideally effects a gradual imitation of the full depth of the tone. Schoenberg describes two main methods of presenting the musical idea through variation. On the one hand, polyphonic music employs “*unfolding*,” where “a number of tones are brought into such a reciprocal relation in their succession and simultaneity (i.e., counterpointed in such a way) that all *Gestalten* appearing in the course of the piece, being already contained in this *Grundgestalt*, are refined, proven, or determined (partially, according to their possibility).”<sup>81</sup> On the other hand, homophonic music employs “*development*,” where “simultaneously with the conception of an entire tone piece, such simple but characteristic *Grundgestalten* are invented as are suitable for fulfilling the form conceived at the beginning in all its parts through interrupted or uninterrupted stepwise accumulation of *Gestalten* (often also interrupted through back-formations).”<sup>82</sup> In a sense, this distinction between unfolding (releasing *Gestalten*) and development (accumulating *Gestalten*) parallels the distinction between the tone’s procreation and its development.

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<sup>80</sup> Schoenberg also names contrast as a way of introducing newness, but just as variation is a type of repetition, so too “*contrast represents a type of variation*; in art there is only *coherent* contrast.” “Stellt sich der Gegensatz als eine Abart der Variation dar; in der Kunst giebt es nur zusammenhangsvollen Gegensatz.” Arnold Schoenberg, “Der musikalische Gedanke; seine Darstellung und Durchfuehrung” (T37.08, July 6, 1925) (Arnold Schönberg Center, <http://www.schoenberg.at>), 6.

<sup>81</sup> “Abwicklung,” where “eine Anzahl von Tönen in ein solches gegenseitiges Verhältnis des Nach und Miteinander gebracht (kontrapunktiert) werden, dass dadurch alle im Laufe des Stückes erscheinenden Gestalten in dieser Grundgestalt bereits enthalten, ausgebildet vorhanden oder teilweise ihrer Möglichkeit nach bestimmt sind.” *Ibid.*, 5.

<sup>82</sup> “Entwicklung,” where “werden gleichzeitig mit der Konzeption eines ganzen Tonstückes solche einfache aber charakteristische Grundgestalten erfunden, welche geeignet sind, durch unterbrochene oder ununterbrochene stufenweise Umbildung (oft auch durch Rückbildungen unterbrochen) die anfangs konzipierte Form in allen ihren Teilen mit Gestalten zu erfüllen.” *Ibid.*, 5. Schoenberg also names “*stringing together*” as a method of connecting parts, but it is “the most primitive of the three methods,” because “its premise is a certain unproblematic quality or problem-solved quality, a *certain restfulness between the combined parts* of the elements.” “Aneinander-Reihung,” “die primitivste der drei Methoden,” “ihre Voraussetzung ist eine gewisse Problemlosigkeit oder -Gelöstheit, einer gewissen Ruhe zwischen den zusammensetzenden Teilen der Elemente.” *Ibid.*, 4. On these methods of presentation, see Neff 1999; and Heneghan 2005.



According to Schoenberg, the motive or the *Grundgestalt* as an image of the musical idea contains a problem of “*unrest* that will give rise to further motion” (*MI*, 153; see also *MI*, 107),<sup>83</sup> and a “*theme* will, so to speak, formulate the problem of unrest present in the basic *Gestalt*” (*MI*, 181). As we learned earlier, this unrest consists in unclear relations of tones to the ground tone (the tonic), just as the unrest in the tone consists in unclear relations of overtones to the ground tone (the fundamental). Thus the dialectical opposition of the tone to itself in its ideality and in its reality, something that is found both within and between nature and art, works itself out within the musical work in the dialectical opposition of the ground tone to itself in the guise of other tones. Without such a “problem” (or without solving it), Schoenberg tells us, “everything that is said about the motive is inapplicable”;<sup>84</sup> that is, there would be no repetition, no variation, not even any distinction between the motive and the musical idea, because the idea would be immediately clear. But we need to be clear about what it means for a relation of tones to be unclear. On the one hand, the very appearance of other tones calls the ground tone into question, regardless of their particular relation: “Every succession of tones produces unrest, conflict, problems. One single tone is not problematic because the ear defines it as a tonic, a point of repose. Every added tone makes this determination questionable.”<sup>85</sup> On the other hand, new relations of tones—which to a certain extent means dissonances—are unclear by virtue of their unfamiliarity. For example, Schoenberg says that there is “a great number of more-than-five-tone chords, the resolving tendencies of which have not yet been systematically investigated,” and “the relation of which is difficult to account for.”<sup>86</sup> Such new relations are what we find in the musical work as a presentation of the musical idea: it is “to present new tone relations for discussion and to work out their consequences,”<sup>87</sup> because the musical idea for Schoenberg always involves new depths of

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<sup>83</sup> At one point, Schoenberg distinguishes between tonal and rhythmic unrest (*MI*, 103), but rhythmic unrest would again be tonal, because he considers rhythm in music to be a property of tones. See Schoenberg 1994, 11; and Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 226.

<sup>84</sup> “Problem,” “alles was über das Motiv gesagt wird unanwendbar ist.” Arnold Schoenberg, “Formungselemente” (T51.18, n.d.) (Arnold Schönberg Center, <http://www.schoenberg.at>).

<sup>85</sup> Schoenberg 1967, 102. At one point, Schoenberg (1994, 28/29) suggests that even an individual tone could be a motive that contains a problem, “because, without further ado, an *individual tone immediately poses a question* concerning its harmonic significance (is it a third, fifth, ground tone, etc.?)”; translation of “Grundton” changed to “ground tone.”

<sup>86</sup> Schoenberg, “Problems of Harmony,” in *SI*, 281.

<sup>87</sup> *Ibid.*, in *SI*, 269. Here one may note Schoenberg’s pithy dictum: “*Art means New Art.*” Schoenberg, “New Music, Outmoded Music,” in *SI*, 115.

the tone.<sup>88</sup> Taking both of these factors into account, Schoenberg distinguishes between degrees of unrest: the weaker unrest produced by familiar relations of tones, as found in self-contained melodies, only requires counterbalancing, whereas the stronger unrest produced by new relations of tones, as found in themes, first requires clarification in the form of variation. To quote him (1967, 102), “A melody re-establishes repose through balance. A theme solves the problem by carrying out its consequences. The unrest in a melody need not reach below the surface, while the problem of a theme may penetrate to the profoundest depths.”

Since the problem in the musical idea for Schoenberg involves new relations of tones, conversely it does not involve familiar relations. When a piece of music solves a problem, it is to a certain extent is solved for good, and the unrest is diminished:

A *Gestalt* will be interesting that presents a new relation of tones and rhythms to one another.

Here an author is not independent of his time. He cannot leave unobserved what others before him have presented for discussion, which problems are exhausted.<sup>89</sup>

As problems have been solved and weakened, “the evolution of music has taken the path of producing ever new kinds of ‘unrest’” or “stronger unrests.”<sup>90</sup> So when Schoenberg seems to say in “Zu: Darstellung des Gedankens” that twelve-tone music does not find relations of tones problematic, he is only referring to familiar relations, whose free use allows one to deal with the problems of new relations. This much becomes clear in the remainder of the fragment, translated here for the first time:

An example:<sup>91</sup> at a certain stage of knowledge it could be necessary to write in the following manner: “People live in houses. These are: (then follows a description of

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<sup>88</sup> For example, the “newness” in Mozart’s ‘Dissonance’ Quartet lies in “the cross-related entrance of the first violin with A against the A<sub>2</sub> that the viola just left.” “Der Neuheit” “des querständischen Einsatzes der ersten Geige mit ,a‘ gegenüber dem ,as‘, das die Viola gerade verläßt.” Arnold Schoenberg, “Zur Frage des modernen Kompositionsunterrichtes” (T14.26) (Arnold Schönberg Center, <http://www.schoenberg.at>), *Deutsche Tonkünstler-Zeitung* 27/21 (1929): 695.

<sup>89</sup> “Interessant wird eine Gestalt sein, welche ein neues Verhältnis von Tönen und Rhythmen zu einander darstellt. “Hier ist ein Autor nicht unabhängig von seiner Zeit. Er kann nicht unbeachtet lassen, was andere vor ihm zur Diskussion gestellt haben, welche Probleme erschöpft sind.” Arnold Schoenberg, “Kriterien des musikalischen Kunstwerks (Notizen zu einem Vortrag)” (T41.04, 1927) (Arnold Schönberg Center, <http://www.schoenberg.at>), MD4.

<sup>90</sup> “Die Entwicklung der Musik, den Weg gegangen ist, immer neue Arten von ,Unruhen‘ herzustellen,” “stärkere Unruhen” (*MI*, 106/107).

<sup>91</sup> Schoenberg paraphrases this analogy in “New Music: My Music” (ca. 1930), in *SI*, 104.

the walls, the roof, the door, the windows and a discussion of its purpose, etc.)...If several such houses stand together, this is...Between houses are found streets...From the town to the next community leads the road...etc.” Today there are still authors who when they speak of the railroad begin if possible with Adam and Eve in paradise, or at least with Papin and Stephenson. But one can easily perceive that this is only necessary when one is speaking to readers who do not know this. Where one on the contrary may assume a certain knowledge, one speaks in conceptual complexes, which include the phenomenon and everything that hangs together with it, and one may rest assured that, out of the number of relations contained therein, the reader will only fixate on those that have to be thought about and that the very intelligent reader will call upon and think with *all* truly known relations. Otherwise the best author cannot proceed, and at best he will have to resign himself to a limitation of the concept, inasmuch as it destroys the path of his idea if desired associations are not triggered, but on the other hand the view of the complete connections must be revealed if he wants to have a concept brought into consideration in its entire scope. Perhaps he will then sometimes need to make specific reference to the unfamiliar relations; in any case, however, he may in general, particularly where it is a question of familiar notions, work with a concept in its full significance, without having to give an explanation. In precisely this position music finds itself presently: *if a tone C appears, then its tonal (primary) relations are familiar to the understanding of the listener, and this tone can immediately enter into new relations.* Such old relations of tones are, e.g., the relations of tones sounding together in which the one or the other tone is a suspension or passing tone: C–D (resolution C–B [*sic*] or C–C), C–F# (B–G, etc.), C–G# (C–A, etc.), C–B $\flat$  (C–A, etc.), C–B (C–A, etc.), C–D $\flat$  (B $\flat$ –D $\flat$ ).

With 3 tones

With 4 tones

*New relations already appear with more than 4 tones.*

The question is merely whether the musical understanding is in a position to grasp these relations and so draw consequences from them, as out of those long familiar.

Here the principle established by me becomes significant:

1. *The chords are not presented for discussion.*

2. The use of musical space in (so to speak) 2 dimensions (horizontal and vertical) aims at accelerating the presentation of the musical idea and is thus a question of artistic economy. (In the sounding of a tone [e.g., a melodic tone] together with other tones [e.g., harmonic tones], it aims at immediately answering one the questions that arise out of the use of this tone, before it has proceeded to the next melodic tone: it is either a member of a chord appearing in a comprehensible progression or only a passing phenomenon, a suspension or a passing tone.) The new music with 12 tones sees the same thing in the vertical direction as in the horizontal; simultaneity for this music is only an infinitely fast succession; this infinitely fast (simultaneously sounding) series of tones is to be grasped just as the progression in the horizontal, and the question can only be whether it is possible to invent a technique that makes the comprehensibility of the “vertical tone progressions” as easy as that of the horizontal, for which one has more time.

Such a technique is given through “composition with 12 tones related to one another” (or, briefly: “CompW12T”).

With this technique the relation of the 12 tones is established once and for all for an entire movement, indeed for an entire piece, and relations other than those given through the *Grundgestalt* could never appear. *The course of the piece thus serves to bring nearer to the understanding everything that cannot be grasped with the first hearing through frequent repetition and many-sided presentation.* The presentation of the idea uses exclusively this material, and it is always the task of the composer to bring everything that he has to say to this “common denominator,” as it were.

Roughly speaking, the following happened in tonal comp.:

The relation of every appearing tone to the ground tone was brought to expression just as much in the vertical as in the horizontal, so that one can say: in a certain respect, the same thing stands in the harmony as in the melody, or, expressed differently: the presentation of the idea proceeded in such a way that *certain problems were worked out just as much in the one dimension as in the other.*

*The same can be said of “CW12T”* (and therewith it is shown that the true laws of art—correctly understood—are eternal): the relation of the 12 tones to one another is brought to expression in such a way that the same thing is said in both of the presently known dimensions of musical space.<sup>92</sup>

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<sup>92</sup> “Ein Beispiel: In einem gewissen Stadium des Wissens konnte es nötig sein, folgendermaßen zu schreiben: ‚Die Menschen wohnen in Häusern. Es sind dies: (folgt Beschreibung der Mauern, des Daches, der Tür, der Fenster und Erörterung ihres Zweckes und dgl.)...Wenn mehrere solcher Häuser beisammen stehen, ist das...Zwischen den Häusern befinden sich die Gassen...Vom Dorf zur nächsten Ansiedlung führt die Straße...etc.‘ Es giebt heute noch Schriftsteller, die wenn sie von der Eisenbahn reden womöglich bei Adam und Eva im Paradies oder doch wenigstens bei Papin und Stephenson anfangen. Aber man kann leicht einsehen, dass das nur in dem Fall nötig ist, als man zu Lesern spricht, die das nicht wissen. Wo man hingegen ein gewisses Wissen voraussetzen darf, spricht man in Begriffs-Komplexen, die die Erscheinung und alles was mit ihr zusammenhängt umfassen und darf sich darauf verlassen, dass der Leser aus der Menge der darin enthaltenen Beziehungen bloß jene auswählen werde, an die eben zu denken ist und dass der sehr verständige Leser alle wirklich bewussten Beziehungen heranziehen und mitdenken wird. Anders kann der beste Schriftsteller nicht vorgehen und höchstens wird er sich das einmal um eine Begrenzung des Begriffes zu bemühen haben, soferne es seinen Gedankengang stört, wenn nicht gewollte Associationen ausgelöst werden, andererseits aber die Aussicht auf sämtliche Zusammenhänge frei legen müssen, wenn er einen Begriff in seinem ganzen Umfang in Betracht gezogen haben will. Vielleicht wird er dann manchmal auf die ungeläufigen Beziehungen besonders hinweisen müssen: jedenfalls aber darf er im allgemeinen, insbesondere, wo es sich um landläufige Vorstellungen handelt mit der vollen Bedeutung eines Begriffes operieren, ohne eine Erklärung geben zu müssen. In eben diesem Zustande befindet sich die Musik gegenwärtig: Wenn ein Ton c auftritt, so sind seine tonalen (primären) Beziehungen dem Verstande des Hörers geläufig und dieser Ton kann unmittelbar in neue Beziehungen treten. Solche alte Beziehungen des Tones sind z. B. im Zusammenklang die Verhältnisse in denen der eine oder der andere Ton Vorhalt oder Durchgang ist: c–d (Auflösung c–h oder c–c), c–fis (h–g etc.), c–gis (c–a etc.), c–b (c–a etc.), c–h (c–a etc.), c–des (b–des).

“Bei 3 Tönen

“Bei 4 Tönen

“Neue Verhältnisse entstehen schon bei mehr als 4 Tönen.

“Es kann bloß die Frage sein, ob das Ohr, ob der musikalische Verstand imstande ist, diese Verhältnisse zu begreifen und aus ihnen so Konsequenzen zu ziehen, wie aus den längst vertrauten.

“Hier tritt das von mir aufgestellte Prinzip in Geltung:

“1. Die Zusammenklänge sind nicht zur Diskussion gestellt.

Earlier, we established that the relations of tones to one another in twelve-tone music are still based on their relations to the ground tone. To put this another way, relations of tones to one another represent relations to the ground tone, similar to how a chord on a circle represents two radii. In the fragment under discussion, Schoenberg confirms that familiar relations of tones and new relations are all of a kind by describing them quantitatively: relations of two to four tones are familiar, whereas relations of more than four tones are unfamiliar. The main difference, again, is that tonal music, using old relations, refers to the ground tone, whereas non-tonal music, using new relations, does not. This lack of reference is related to emancipating dissonances: the parenthetical explanation or resolution of familiar dissonances is omitted, and with the total emancipation of dissonance in twelve-tone music, the chords as such are “not presented for discussion,”<sup>93</sup>

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“2. Die Benützung des musikalischen Raumes in (sozusagen) 2 Dimensionen (horizontal und vertikal) bezweckt die Darstellung des musikalischen Gedankens zu beschleunigen, ist also eine Frage der künstlerischen Oekonomie. [Im Zusammenklang eines {z. B. Melodie-}Tones mit anderen {z. B. Harmonie-}Tönen bezweckt eine der Fragen, die aus der Benützung dieses Tones entstehen sofort zu lösen, ehe zum nächsten Melodieton übergegangen wird: er ist entweder Akkordbestandtheil eines in einer fasslichen Folge auftretenden Akkordes oder nur eine durchgehende Erscheinung, wie Vorhalt oder Durchgang.] Die neue Musik mit 12 Tönen erblickt in der vertikalen Richtung dasselbe wie in der horizontalen; das Gleichzeitig ist ihr nur ein unendlich rasches Nacheinander, diese unendlich rasche (gleichzeitig klingende) Aufeinanderfolge von Tönen sind ebenso aufzufassen, wie die Folgen in der horizontalen und es kann nur die Frage sein, ob es möglich ist eine Technik zu erfinden, die Auffassbarkeit der ‚vertikalen Tonfolgen‘ so leicht macht, wie die der horizontalen, zu denen man eben mehr Zeit hat. Eine solche Technik ist durch die ‚Komposition mit 12 aufeinander bezogenen Tönen‘ (kurz: ‚Komp. m. 12. T.‘ genannt) gegeben.

“Bei dieser ist das Verhältnis der 12 Töne ein für alle Male für einen ganzen Satz, ja für ein ganzes Stück festgelegt und es können niemals andere Verhältnisse auftreten, als die durch die Grundgestalt gegebenen. Der Verlauf des Stückes dient dazu, alles, was beim ersten Hören nicht erfasst werden konnte durch oftmalige Wiederholung und mannigfaltige Darstellung dem Verständnis näher zu bringen. Die Darstellung des Gedankens benützt ausschließlich dieses Material und es ist stets Aufgabe des Komponisten, alles was er zu sagen hat gleichsam auf diesen ‚gemeinsamen Nenner‘ zu bringen.

“Grob gesagt geschah in der tonalen K. folgendes:

“Die Beziehung jedes auftretenden Tones zum Grundton wurde sowohl in der vertikalen als auch in der horizontalen zum Ausdruck gebracht, so dass man sagen kann: in gewisser Hinsicht stand in der Harmonie dasselbe, wie in der Melodie; oder anders ausgedrückt: die Darstellung des Gedankens erfolgte derart, dass gewisse Probleme sowohl in der einen, als auch in der anderen Dimension verarbeitet wurden.

“Das gleiche lässt sich (und somit zeigt sich, dass die wahren Gesetze der Kunst—richtig erkannt—ewig sind) von der ‚K. m. 12. T.‘ sagen: Das Verhältnis der 12 Töne zueinander wird dadurch zum Ausdruck gebracht, dass in beiden bis jetzt bewussten Dimensionen des musikalischen Raumes dasselbe gesagt wird.” Schoenberg, “Zu: Darstellung des Gedankens”; translation and emphasis mine, except the emphasis on the word “all.” Used by permission of Belmont Music Publishers and the Arnold Schönberg Center.

<sup>93</sup> Schoenberg is here echoing the essay “Komposition mit 12 Tönen” (1923): “In twelve-tone composition this law operates: that one must not inquire after the more or less dissonant character of a harmony, because the harmony as such...is absolutely not presented for discussion as a compositional element....In CW12T it is precisely the mentioned tone row that is presented for discussion.” “In der Komposition mit 12 Tönen bewirkt dieses Gesetz, dass nach dem mehr oder weniger dissonanten Charakter eines Zusammengklanges nicht gefragt werden muss, weil der Zusammenklang als solcher...als kompositionelles Element gar nicht zur Diskussion gestellt ist....

not supposed to resolve, although the composer will “sometimes need to make specific reference to the unfamiliar relations” through the resolution of dissonances. This lack of reference is also related to the concision that is facilitated by twelve-tone composition: horizontal passing motions and suspensions can also be presented vertically, so here again but in a different way the lineage of these tones is erased.<sup>94</sup> So Schoenberg tells us that new relations of tones in twelve-tone music are problems that require clarification through variation, just as the familiar relations once did.<sup>95</sup> In interpreting this fragment as claiming that twelve-tone music does not have problems, Carpenter and Neff have not yet taken into account the historical nature of the problem, the continuity of familiar and new relations, and the need for assuming familiar relations versus explaining unfamiliar ones. Further evidence of problems in twelve-tone music appears in a notebook entry by Schoenberg that apparently refers to a problematic pair of tone rows as complexes of unclear overtones desirous of procreation:

The problem of a musical idea consists of the tension in the overtones if 2 or more tones appear simultaneously and....

A...desire for reproduction work [*sic*] in a musical idea, once one row of overtones has met its contrasting companion.<sup>96</sup>

According to Schoenberg’s dialectical and metaphorical way of thinking—and this is a crucial point—the lack of reference to the ground tone in non-tonal music transforms the phenomenal natures of unrest and rest. In a piece of tonal music, rebellious tones introduce unrest by calling the ground tone into question—in terms of both our knowledge and its power—and the ground tone restores peace by crushing the rebellion, although in truth the ground tone is also the instigator, since the rebels take after their ruler. To quote Schoenberg, “Perhaps...the rebellious ambitions of the subjects spring as much from the tyrant’s urge to dominate as from their own tendencies. The tyrant’s urge is not satisfied without the ambitions of the subjects. Thus, the departure from the head

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Zur Diskussion gestellt ist in der K. m. 12. T. eben die erwähnte Tonreihe.” Arnold Schoenberg, “Komposition mit 12 Tönen” (T34.10, May 9, 1923) (Arnold Schönberg Center, <http://www.schoenberg.at>), trans. as “Twelve-Tone Composition,” in *SI*, [1v]/207. The same idea again appears in Arnold Schoenberg, “Linear Counterpoint: Linear Polyphony” (1936), in *SI*, 296.

<sup>94</sup> This phenomenon of verticalized horizontal motions seems to be related to the added-tone chords that Simms (2000, 16) and Haimo (2006, 253) have identified in Schoenberg’s early non-tonal music.

<sup>95</sup> For an interesting analysis of Schoenberg’s twelve-tone Variations for Orchestra, op. 31, in terms of a logical development of relations, see Covach 2000.

<sup>96</sup> Arnold Schoenberg, “Notizbuch III” (T67.02, n.d.) (Arnold Schönberg Center, <http://www.schoenberg.at>), [5–6].

tone is explained as a need of the head tone itself, in which, in whose very overtones, the same conflict is contained on another plane, so to speak, as a model. Even the apparently complete departure from the tonality turns out to be a means for making the victory of the ground tone so much the more dazzling.”<sup>97</sup> In a piece of non-tonal music, the situation is more complex. Although other tones may still call the ground tone into question, for familiar relations the answer is (in accordance with the metaphor of music as language as given in “Zu: Darstellung des Gedankens”) assumed to be understood and left unmentioned. It is paradoxically the imperceptibility of the ground tone that represents clarity and rest, and the mere hint of the ground tone in new, unclear relations of tones that represents unrest, an arousal of the ground tone’s lust for power. To solve the problem, the ground tone must work through its megalomania. (One is tempted to say, it must go through a twelve-half-step program.) This finding is consistent with Jenkins’s claim (2007, 60) that deviations from tonally ambiguous interval cycles such as the chromatic scale, the augmented triad, and the diminished seventh chord are a source of unrest in Schoenberg’s non-tonal music. It is also consistent with Cherlin’s observation (1993) that Schoenberg’s twelve-tone music does not just abandon but actively represses tonality and with Kurth’s suggestion (2001, 246 and 247) that “moments of apparent tonal function” in this music are “imbalances in the suspension of tonality.” As Schoenberg notes with respect to twelve-tone music: “Even a slight reminiscence of the former tonal harmony would be disturbing, because it would create false expectations of consequences and continuations.”<sup>98</sup> However, this finding qualifies Cherlin’s assertion that “perfection...is abandoned” by Schoenberg’s non-tonal music (2007, 8): suspended tonality can convey a sense of imperfection, but only insofar as the suspension itself is perfectly achieved. This finding also allows us to make sense of Schoenberg’s seemingly inconsistent statements regarding the comprehensibility of dissonances: if one can hold the ground tone responsible for disturbing the peace, as indeed it has always been, then one can *assume* that consonances and dissonances are equally clear—that is, regard them as equal in the eyes of the law—even though they are not *really*. So, in short, a piece of tonal music solves its problem by erasing all doubt about the ground tone, whereas a piece of non-tonal music solves its problem by erasing all trace of the ground tone as such.

Two concrete examples of problems in non-tonal music are in order: a non-twelve-

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<sup>97</sup> *HL*, 171/151; translation of “Ausweichung vom Hauptton” changed to “deviation from the head tone,” “Grundton” to “ground tone,” and “sozusagen in einer anderen Ebene, vorbildlich” to “on another plane, so to speak, as a model.”

<sup>98</sup> Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 219.

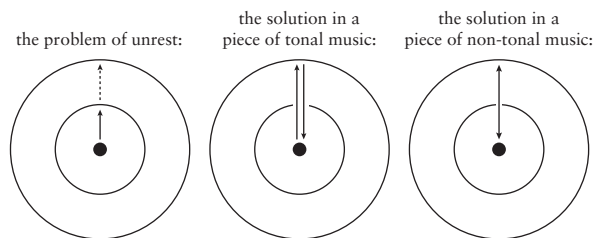
tone example and a twelve-tone example. Schoenberg's Little Piano Piece, op. 19, no. 6, begins in a state of equilibrium with a two-measure introductory phrase, composed of an incomplete B<sup>7</sup> chord (A–F<sup>♯</sup>–B) balanced against a G fourth chord (G–C–F).<sup>99</sup> In the *Grundgestalt* (mm. 3–4), the equilibrium is complemented by D<sup>♯</sup> in m. 3, which together with the ground tones B and G forms a symmetrical augmented triad. The problem is the high E that enters in m. 3 as neighbor note against the held D<sup>♯</sup>. E forms a dissonant, seven-tone chord whose high, wide voicing makes it resemble remote overtones. When E resolves back to D<sup>♯</sup> in m. 4, it tonicizes B by following the model  $\hat{3}-\hat{4}-\hat{3}$  in B major, disturbing the equilibrium. In a varied repetition of the *Grundgestalt*, mm. 5–6, the unrest increases in that E reappears as the ground tone of an incomplete E<sup>9</sup> chord (E–D–F<sup>♯</sup>–G<sup>♯</sup>) after the incomplete B<sup>7</sup> chord, initiating a descending-fifths progression, while the G fourth chord similarly progresses by descending fifth to a C fourth chord (C–F–B<sup>♭</sup>). A continuation phrase, m. 7, accelerates the harmonic motion by skipping the A implied by the preceding E<sup>9</sup> chord and going directly to a D<sup>add9</sup> (D–E<sup>♭</sup>–F<sup>♯</sup>) that takes its root and third (D and F<sup>♯</sup>) from the seventh and ninth of the E<sup>9</sup> chord. A second continuation phrase, m. 8, arrests the rampant root movement by balancing the expected G chord, G<sup>add4</sup> (C<sup>♯</sup>–G–B–D), against its T<sub>1</sub>, A<sup>♭add4</sup> (D–E<sup>♭</sup>–G<sup>♯</sup>–C). Not only G but all the previous ground tones reappear: B, C, D, and the problematic E, which again resolves to D<sup>♯</sup> (E<sup>♭</sup>). Through this gathering together, E is illuminated together with a new means of reaching a balance. At the cadence in m. 9, the incomplete B<sup>7</sup> chord is balanced not only with the G fourth chord, but also with a very incomplete B<sup>♭7</sup> chord (A<sup>♭</sup>–B<sup>♭</sup>), recognizable by its similar voicing, which follows the model of m. 8 in that B<sup>7</sup> is T<sub>1</sub> of B<sup>♭7</sup>. The B<sup>♭</sup>–A<sup>♭</sup> figure in m. 9 is developed from the neighbor motive D<sup>♯</sup>–E–D<sup>♯</sup> in mm. 3–4 through inversion, octave displacement, and reduction, thus clarifying its coherence with the ostinato motive.<sup>100</sup>

Fukuchi (2004, 81–85, 170, and 186–89) has shown how Schoenberg's "Begleitungsmusik zu einer Lichtspielszene" op. 34, features a conflict between C<sup>♯</sup> and E<sup>♭</sup> as tonal centers. The *Grundgestalt*, mm. 1–3, begins with a hexachord composed of a harmonic dyad E<sup>♭</sup>–G<sup>♭</sup>, a melodic motive E–C<sup>♯</sup>, and a suspension motive D–C in mm. 1–2. The resolution tone C and the dyad E<sup>♭</sup>–G<sup>♭</sup> suggest vii<sup>o</sup> of C<sup>♯</sup>, but D also has the potential to function as the leading tone of E<sup>♭</sup>. Fukuchi has further shown that in the coda, mm. 200–19, the E–C<sup>♯</sup> and D–C motives combine into a D–E–C<sup>♯</sup>–C motive that unifies the

<sup>99</sup> Schoenberg suggests that fourth chords "refer to degrees according to the degrees by which they are introduced and by which they are followed." Arnold Schoenberg, "A 'Theory' of Fourths" (T37.02, 1939) (Arnold Schönberg Center, <http://www.schoenberg.at>), 2. Since the fourth chords here move by descending fifth, I simply interpret the bass as the root.

<sup>100</sup> I am indebted to Severine Neff for helping me think through this piece.



**EXAMPLE 4**

The musical work as a presentation of the musical idea

row by appearing transposed, inverted, and vertically. He does not mention that the final cadence in m. 217 gives the entire first hexachord as two simultaneous and overlapping statements of this motive: D–E–C♯–C, focused on C♯, and E–G♭–E♭–D, focused on E♭. In this case, the problem is D in mm. 1–2 or the dissonant hexachord made up of E♭–G♭, E–C♯, and D–C, because when D resolves to C, the music tonicizes C♯. The solution, worked out through motivic development, is the final cadence, which clarifies and stabilizes D and its hexachord—i.e., confirms the hexachord as consonant—and keeps the music perfectly poised between C♯ and E♭.

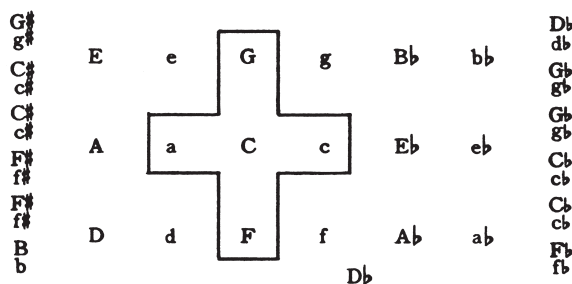
Schoenberg’s conception of the musical work as a presentation of the musical idea is structured by the set of image-schematic complexes in Example 4, which are very similar to those in Examples 2 and 3, for again the musical idea is a tone. A piece of music at the appearance of the problem (shown at the left of Example 4) uses a container, a part-whole, a center-periphery, a source-path-goal, a nested-container, and a blockage schema, as well as an attraction schema.<sup>101</sup> The piece represents a trek through “musical space.”<sup>102</sup> As Carpenter (1988b, 345) has argued, this space is not only the horizontal-vertical plane of the music but also, as is relevant here, the space of relations of tones, “the domain of the ground tone.”<sup>103</sup> But these relations are not, as Carpenter has suggested, entirely a priori; rather, to reiterate, every musical idea establishes new relations. “The ground tone, or the ground tonality” (the tonic, or the tonic region), is a central part and source (shown with the dot) that produces and becomes the peripheral container and whole (shown with the outer circle).<sup>104</sup> Clear relations of tones are contained by the inner circle, whereas new, unclear relations are contained by the outer circle. This

<sup>101</sup> Saslaw (1997–1998, 22–23) has drawn attention to the first three of these schemas, but only as separate things and only with regard to tonal music.

<sup>102</sup> Schoenberg, “Composition with Twelve Tones (1),” in *SI*, 220.

<sup>103</sup> *HL*, 169/150; translation of “Grundton” changed to “ground tone.”

<sup>104</sup> “Der Grundton, oder die Grundtonalität” (*MI*, 120–22/121–23).

**EXAMPLE 5**

The chart of the regions for C major (*SF*, 20)

containing of clear relations may be what Schoenberg has in mind by setting off the closest regions in the chart of the regions, shown for C major in Example 5, which represents musical space during “the tonal period” (*SF*, 68).<sup>105</sup> As with consonances and dissonances, Schoenberg distinguishes relations of tones in general as “direct (closely related)” and “indirect (distantly related),” and he distinguishes the regions as “I. Close and Direct; II. Indirect but Close; III. Indirect; IV[.] Indirect and Remote; V. Distant” (*SF*, 21).<sup>106</sup> Returning to Example 4, the problem consists of “remotely related tones” (shown with the outer circle) that present “an obstacle to intelligibility” (shown with the inner circle); that is, they appear as dissonances that cannot be traversed freely.<sup>107</sup> These remotely related tones produce “imbalance”<sup>108</sup> and unrest: a motion (shown with the solid arrow) that will give rise to further motion (shown with the outward dotted arrow) as their “centrifugal tendencies” (*SF*, 2) overpower “the attraction of the tonal center” (*HL*, 150).<sup>109</sup> In tonal music, this motion is troubling because it threatens to go too far, whereas in non-tonal music, this motion is troubling because it does not go far enough.

<sup>105</sup> The original versions of the chart of the regions that Schoenberg apparently used for teaching set off groups of regions with ovals and/or colors rather than just a rectilinear outline, but in any case the impression of nested containers remains. Moreover, Neff (2011, 200–1) has suggested that Schoenberg’s use of color also illustrates the evolution of music in terms of the incorporation of balanced pairs of regions: first the dominant and sub-dominant regions, then the relative and parallel regions, and then alternate inflections of scale degrees. The same nested-container schema may be behind Schoenberg’s earlier description of close and remote keys in terms of a series of circles (*HL*, 155).

<sup>106</sup> “Unmittelbares (nah-verwandtes)” and “mittelbares (entfernt-verwandtes).” Schoenberg, “Probleme der Harmonie (Notizen),” in Jacob 2005, 2:784.

<sup>107</sup> Schoenberg, “My Evolution,” in *SI*, 87; see also *SF*, 113.

<sup>108</sup> Schoenberg, “New Music, Outmoded Music,” in *SI*, 123.

<sup>109</sup> On centrifugal and centripetal tendencies, see Jacob 2005, 1:294–301.

At the ideal solution of the problem (shown at the middle of Example 4 for a piece of music with tonality and the right for a piece without tonality), the complex adds a removal-of-restraint schema.<sup>110</sup> Clarification of the new relations, “penetrating to the most remote consequences of an idea,” which corresponds with “penetration into what is given in nature” (*HL*, 315), is the removal of restraint (shown with the arrow piercing the inner circle).<sup>111</sup> This penetration represents the filling out of the ground tone, and it brings about the closure of the “form,” “the termination of the unrest of opposing forces that occurs if these reach a balance with one another.”<sup>112</sup> In a piece of tonal music, reaching a balance entails “counterbalancing the centrifugal powers of some of the tones by centripetal tendencies,”<sup>113</sup> in such a way that there is “a cyclical harmonic motion, which goes out from the ground tone and returns to it” (shown with the outward and inward arrows).<sup>114</sup> But in a piece of non-tonal music, reaching a balance entails restoring an equilibrium, in which the music is equally disposed toward the ground tone and toward the other tones (as shown with the double-headed arrow).<sup>115</sup> In these contrasting situations, the self-assertion or self-denial of the ground tone can be understood as the music’s concentration at the center or its diffusion respectively.<sup>116</sup>

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<sup>110</sup> Instead of blockage and removal-of-restraint schemas, Saslaw (1997–1998, 23) has suggested that the problem and its solution in a piece of tonal music involve a counterforce schema, a head-on meeting of opposing forces, which both initiates motion and brings it to a halt. However, as we have seen, opposing forces for Schoenberg pull the music in different directions; they do not meet each other head on.

<sup>111</sup> Schoenberg, “Brahms the Progressive,” in *SI*, 439.

<sup>112</sup> “Form,” “das Ende der Unruhe entgegenstrebender Kräfte, welche eintritt wenn diese einander das Gleichgewicht halten.” Arnold Schoenberg, “Form in Music” (T51.17, n.d.), 7, in Jacob 2005, 2:684.

<sup>113</sup> Schoenberg, “Tonality,” in Jacob 2005, 2:817.

<sup>114</sup> “Einer cyklischen Harmoniebewegung..., die vom Grundton ausgehend zu ihm zurückkehrt.” Arnold Schoenberg, “Entwicklung der Harmonie” (T36.01, n.d.), in Jacob 2005, 2:754. Centrifugal forces also balance one another, paradigmatically the dominant and subdominant; see *HL*, 24; *HL*, 132; and *MI*, 311.

<sup>115</sup> In this regard, Kurth (2001, 247) points out that Schoenberg’s twelve-tone music suspends tonality “through the abstract counterbalancing of numerous tonal forces.”

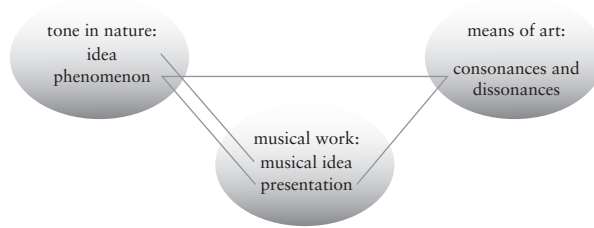
<sup>116</sup> Incidentally, blockage and removal-of-restraint schemas also structure Schoenberg’s conception of the resolution of dissonances. Here we can recall Schoenberg’s statement about the dissonant six-three chord being felt as a barrier to the fulfillment of the bass tone. In addition, he writes of dissonant melodic spans, “The ear resists dissonances (more distant overtones)...; it perceives them as obstacles and longs for their removal, for their resolution” (*HL*, 45). And in describing the resolution of a dissonant chord by means of a strong progression, he writes, “If a barrier is set against the harmonic flow through the insertion of the dissonance, somewhat comparable to a dam in a brook, then this resistance should create an accumulation of energy that takes the obstruction, so to speak, ‘in full swing.’ An energetic move should be used to get over the barrier” (*HL*, 49).

### The Evolution of Perception and Music

The integration network in Example 6 shows how Schoenberg blends his conceptions of the tone in nature and the means of art in his conception of the musical work: the mental spaces are linked primarily by the nearly identical sets of image-schematic complexes we have analyzed. The crucial emergent feature, by virtue of which the musical work can work out the dialectical oppositions within and between nature and art, is that the tone's abstract movement of procreation and development becomes the concrete movement of tones in musical space and time.

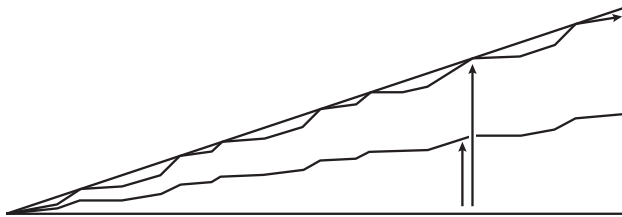
Example 6 also maps out Schoenberg's dialectical conception of the evolution of perception and music. At a certain moment in history, the tone as an idea of nature becomes a musical idea. The tone as a phenomenon and the means of art together feed into the presentation of the musical idea: the appearance of the problem and its solution. Penetration of the tone in the musical work contributes to further analysis of the tone as a phenomenon and to further development of the means of art and their laws, including the emancipating of dissonances, if they are not already totally emancipated. At the next moment in history, this cycle repeats, with newly revealed tone color, newly analyzed overtones, and newly invented musical means. This conception emerges in the following description of the historical evolution of harmony:

1. The historical evolution is different from the natural evolution it might have been. According to a natural evolution structures would exist that correspond to the laws of nature.
2. It is true, nevertheless, that the historical evolution has followed, somehow, the will of nature, even if by troublesome detours; for our minds (*Geist*) can produce nothing that is completely different from nature. And if we assume that nature has laws, then even this human creation cannot be accidental, but must rather conform to laws.
3. The historical evolution, after all, tells only in what order and by what route those harmonies broke into music, but not how they relate to the principal aim of our activity. Thus, whereas these harmonies may of course have arisen as accidental harmonic structures, they could be, nevertheless, just as legitimate and basic as the others, whose fundamental character we have already recognized.
4. Actually, all the other chords of our system came into being in a manner similar to that in which these harmonies emerged. That is, those too were first used sparingly, and with caution, as inconspicuously as possible; but then, as soon as they were familiar to the ear, they became everyday, self-evident events in every harmonic composition. They were freed from the context in which they ordinarily appeared and were used as independent chords, as I have shown with the diminished triad and the seventh chord. (*HL*, 315)



**EXAMPLE 6**

The integration network of the tone, the means of art, and the musical work



**EXAMPLE 7**

The evolution of perception and music

According to Schoenberg, the historical evolution of harmony involves new chords breaking into music and new laws appearing that govern their usage, and it constitutes a imperfect version of a counterfactual natural evolution that would have been “if artists always had the courage to go back to the primary source” (*HL*, 315). In other words, this natural evolution would exactly match the artist’s evolving perception of the tone. New chords, like other musical means, are first understood only in part and later understood completely; in Schoenberg’s terms, they become “self-evident.” His use of this term indicates that the fully known laws reflect the consciously perceived portion of the tone, which is equally self-evident. Schoenberg distinguishes the fully understood musical means from the totality of means as those of handicraft and art: “Art and handicraft have as much to do with one another as wine with water. In wine there is of course water, but he who begins with the water is an adulterator” (*HL*, 410).

As shown in Example 7, Schoenberg’s conception of the evolution of perception and music combines the container, part-whole, source-path-goal, verticality, nested-container, blockage, and removal-of-restraint schemas found in the tone, the means of art, and the musical work with an additional source-path-goal schema. What emerges is a composite graph of depth versus time: the depth of the tone as perceived, both consciously and unconsciously (indicated by the lower jagged line and the diagonal line respectively),

the depth of the tone as reflected in the means of art, both the fully understood and the partially understood (indicated by the lower and upper jagged lines respectively), and the depth of the tone as imitated in the musical work (indicated by the upper jagged line). Here it becomes clear that there is a duality between penetration of the tone in the musical work relative to what is perceived at a given historical moment (the ratio between the heights of the upper two lines) and the ever-increasing penetration of the tone in absolute terms over historical time (the height of the upper jagged line). The former is the measure of the artist, whereas the latter is the measure of art. There is also a duality between the profound analysis of the tone by way of its imitation in the musical work (the height of the upper jagged line)—for “to grasp what happens in a piece of music means nothing else but to analyse quickly”<sup>117</sup>—and the more restricted analysis of the tone in perception (the height of the lower jagged line). According to Schoenberg, the series of musical works that yield a “positive gain” (*HL*, 30–31) in “the degree of penetration into what is naturally given” (*HL*, 414) through imitation of the tone traces out “the path of the means of art” (shown with the jagged arrow).<sup>118</sup> Schoenberg tells us that “the evolution of music has followed this path: it has included in the area of the means of art ever more of the harmonic possibilities lying in the tone.”<sup>119</sup> The first music, music with no depth at all, is the source and is shown where the jagged arrow begins. Schoenberg speculates that “the most primitive form of prehistoric music had at its disposal only a single instrument capable of producing only a single tone” (*MI*, 107). The solution of all the problems in the tone, “the precise accommodation of all overtones” (*HL*, 319), is “the ultimate goal,” but this goal is a moving target on account of the perpetual expansion of the tone as a phenomenon. The limitlessness of the tone implies the endlessness of evolution. Schoenberg declares, “Evolution is not finished, the peak has not been crossed. It is only beginning, and the peak will come only, or perhaps never, because it will always be surpassed” (*HL*, 97).<sup>120</sup> Schoenberg describes the path of the means of art as “the path to the summit” of a mountain (*HL*, 70). Works of “genius,” which attain full “penetration of nature” (*HL*, 325), form mountain peaks along the path (shown where the jagged

<sup>117</sup> *HL*, 133; see also Schoenberg, “My Evolution,” in *SI*, 87.

<sup>118</sup> “Den Weg der Kunstmittel” (*HL*, 459/412).

<sup>119</sup> “Die Entwicklung der Musik ist den Weg gegangen, daß sie immer mehr von den im Ton gelegenen Zusammenklangsmöglichkeiten in den Bereich der Kunstmittel einbezogen hat” (*HL*, 19/21; translation modified).

<sup>120</sup> At times, Schoenberg suggests that we may solve all the problems in the tone: “Imitation...does not yet, will not yet for a long time, go as far as the prototype” (*HL*, 225). But even if we do, the evolution of music will still continue. He says that when we “have reached the utmost perfection in the imitation of nature,” we will be able to “turn away from the external model and more and more toward the internal, toward the one within us” (*HL*, 263/239; translation of “äußerste Vollendung” changed to “utmost perfection”).

arrow touches the diagonal line). To quote him, “The highest pinnacles, which are most accessible to the observer, into which the capillaries lift the finest and best from the depths, these alone set forth the spirit of mankind....One sees that they are related and how they are related, that they are coherent amongst themselves” (*HL*, 411–12). Namely, they are related in that “the ratio of the artist to his work,” the ratio between the heights of the upper two lines, actually “equals one.”<sup>121</sup>

According to Schoenberg, the way to the path of art leads straight up from the material: “There is only one direct way of connecting to the past, to tradition, to the thinking of our forerunners: to start again from scratch, as if everything earlier were wrong, to get in touch again with the essence of things, instead of merely expanding the technique of handling the given material.”<sup>122</sup> For the one who relies on systematic rules, the way to the path of art is blocked, and his work only reaches the level of handicraft (as shown with the short vertical arrow), but for the one who relies on his ear and his feelings, the way is open (as shown with the long vertical arrow): “Does the pupil have need for the laws, so that he can know how far he may go? I have indeed just said how far he may go: as far as his nature drives him; and he must strive to hear his nature precisely if he wants to be an artist! If he only wants to be a craftsman, then a barrier will appear somewhere all of its own accord; the same barrier that keeps him from artistry will also keep him from going all too far” (*HL*, 415). By way of contrast, “The master proves his mastery by breaking through the barriers and becoming free” (*HL*, 396). For the craftsman, the way to the path of art is blocked not only in terms of inventing new musical means but even in terms of using them. According to Schoenberg, “There is perhaps still a copyright on them, a quite arrogant right of ownership, that refuses to open the road to those who will not make the effort themselves. Those who themselves make the effort find it anyway, find it in a way that gives them right of use. To them the road is open; to the others, who only want to try their hand at it, may it remain closed” (*HL*, 413). Handicraft keeps half-pace with art in terms of its depth. Schoenberg insists, “The ordinary person...must always keep equal the distance above and below himself; and since those above him push forward, he must move along at a suitable interval behind” (*HL*, 416). Accordingly, the depth reached by art at a given moment is eventually open to handicraft, to systematization. Schoenberg assures us, “Whereas the distance

<sup>121</sup> *HL*, 366/326; translation of “Verhältnis” changed to “ratio.”

<sup>122</sup> “Es gibt nur einen direkten Weg des Anschlusses an die Vergangenheit, an die Tradition, an das Denken unserer Vorgänger: es noch einmal von vorne anzufangen, so als ob alles frühere falsch wäre; sich noch einmal mit dem Wesen der Dinge in Verbindung zu setzen, anstatt bloss die Technik der Verarbeitung gegebenen Materials zu erweitern.” Schoenberg, “Aphorismen und Sprüche,” 3. See also Arnold Schoenberg, “Die heutige Jugend” (T03.55, ca. 1931) (Arnold Schönberg Center, <http://www.schoenberg.at>).

between the onrushing, brilliant insight of the genius and the ordinary insight of his contemporaries is relatively vast, in an absolute sense, that is, viewed within the whole evolution of the human spirit, the advance of his insight is quite small. Consequently, the connection that gives access to what was once incomprehensible is always finally made” (*HL*, 30). Along the same lines, Schoenberg mentions that “ultimately, the newer techniques will be in the public domain” (*HL*, 413).<sup>123</sup>

## II. Analysis

### Overview

As is well known, Schoenberg’s study of Brahms’s music plays a prominent role in his development as a musician, and he comes to see himself as Brahms’s successor in the struggles of art.<sup>124</sup> In Brian Hyer’s words (2002, 750), “Schoenberg...depicted himself as Siegfried to (paradoxically?) Brahms’s Wotan, the hero who shattered the sacred musical spear (with its contractual obligations to the tonic) and blazed a path to the new world order, rebuilt from the ruins of musical tradition.” By filling out Schoenberg’s analytical sketch of the first movement of Brahms’s Piano Quartet No. 3 in C minor, op. 60, in *Der musikalische Gedanke und die Logik, Technik und Kunst seiner Darstellung*, it is possible to demonstrate how Schoenberg’s theory of composition works and how Brahms’s music prompts his theory. I examine here the music’s motives, harmony, voice leading, form, and character, heuristically adopting terms from William E. Caplin’s theory of formal functions (1998) and James A. Hepokoski and Warren Darcy’s theory of sonata form (2006). The main thing that sets my analysis apart from analyses of a “tonal problem” and from other analyses of this piece is how I show the problem in the musical idea to be linked to problems in the tone and the dissonance and how I understand the working out of the problem to be a musical event as well as a historical event.

Schoenberg presents his analytical sketch to illustrate his claim that not only motivic, melodic content but also tonal, harmonic content on its own has a coherent structure. His comments focus on E and more specifically on E minor in the key of C minor as a

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<sup>123</sup> Schoenberg’s mountain is strikingly similar to Wassily Kandinsky’s “spiritual pyramid, which will some day reach to heaven” ([1912] 1914, 20). Kandinsky ([1912] 1914, 6) describes its profile as follows: “The whole triangle is moving slowly, almost invisibly forwards and upwards. Where the apex was today the second segment is tomorrow; what today can be understood only by the apex and to the rest of the triangle is an incomprehensible gibberish, forms tomorrow the true thought and feeling of the second segment.” Jeffrey Perry (2000) has examined the phenomenon of linear evolutionary accounts of music history.

<sup>124</sup> On Schoenberg and Brahms, see Budde 1978 and Musgrave 1990.



problem whose solution gives the piece structure (see Example 8).<sup>125</sup> Referring to the first appearance of an E-minor triad in mm. 28–30 at the end of the primary theme and the beginning of the transition, Schoenberg notes, “The minor form that then appears, the  $\text{iii}$  Stufe, ...could also be understood as melodic-motivic coherence, but this would not explain how the harmony after the ‘Reprise’ then brings the same chord ( $\text{iii}$ ) with  $\text{VII}$ .”<sup>126</sup> He identifies the quarter-quarter,  $\text{Eb}-\text{D}$  motion in mm. 3 and 4 as the basic motive, which I call  $m$  for motive. Like Jonathan Dunsby (1981, 29) and Carpenter and Neff,<sup>127</sup> I pair  $m$  with the accompanying C–F motion in these measures as a derivative motive,  $n$ . The melodic-motivic coherence of the E-minor triad would then be that E is actuated by the variant of  $n$  E–E in mm. 28–30 as well as by the inversion of  $m$  E–F in mm. 30–31, but, as shown in simplified form in Example 9, the same can be said of the parallel point in the recapitulation (mm. 223–35). In this latter case, E is actuated by the variant of  $n$  E–E in mm. 224–26, as well as by the transposition of  $n$  E–A, the transposition of  $m$  E–D $\sharp$ , and the inversion of  $n$  E–B in mm. 226–27. The melodic-motivic coherence does not explain the different subsequent course: a  $\text{i}^6-\text{V}^7-\text{vii}^{\text{o}7}-\text{V}/\text{iv}-\text{iv}-\text{i}$  progression in E minor in mm. 224–30. Schoenberg writes that the different appearances of the E-minor triad clarify E as an alternative, raised mediant of C alongside the diatonic mediant (in other words, E = M C too): “Brahms found a possibility, by means of this minor triad on  $\text{Eb}$ , that allows the V of C minor to be followed by a chord that in an equally surprising manner leads one time back to I (C), and another to the V of C minor, carried out like a key (G). The point of this surprise is that this E so stands between C and G as does the diatonic third  $\text{Eb}$  in C minor, C E G instead of C  $\text{Eb}$  G” (MI, 321). Schoenberg then riffs on this point, explaining that the clarification of E as the raised mediant involves the E-minor triad leading in an engaging and elegant manner to successive tonicizations of C, E, and G: “This progression thus has the purpose of accomplishing a double surprise; the first time, the surprising reentry of the tonic theme; the second time, during which the E minor is truly further carried out, becomes a double surprise: a) of a different continuation (E minor), which b) ultimately flows into G major by use of the harmonic progression from bars 21–27 transposed to E [i.e., in a varied form in mm. 230–34], thereby actually producing C E G. This bespeaks a special constructive elegance!” (MI, 321). Thus the clarification of E

<sup>125</sup> Apropos of this problem, Schoenberg says that “tones and harmonies whose relationship to the tonic is only a third...can exert sometimes a centrifugal tendency. This tendency grows with the greater distance from the tonal circle, especially if substitute tones are applied.” “Tonality,” in Jacob 2005, 2:818.

<sup>126</sup> “Die dann erscheinende Moll-Form, der  $-\text{III}$  Stufe...könnte ebenfalls als melodisch-motivischer Zusammenhang verstanden werden, was jedoch die Harmonie nicht erklärte, nach der „Reprise“ bringt dann denselben Akkord ( $\text{III}$ ) mit  $\text{VII}\sharp/\text{A}$ ” (MI, 314/315; translation modified).

<sup>127</sup> Carpenter and Neff, “Commentary,” in MI, 67.

introduction ⇒ primary theme

ANTECEDENT

introduction (2 bars) basic idea (2 bars)

continuation (6 bars)

**Allegro non troppo**

*f* *dim.* *p* *m* *m* *m* *m* *m* *p*

*n* *n*

FAILED CONSEQUENT

introduction (2 bars) presentation (4 bars)

9

*f* *dim.* *p* *m* *m* *m* *m*

HC

continuation (5 bars)

standing on the dominant (10 bars)

17

*espress.* *dim. sempre* *pp* *m* *m*

HC

**EXAMPLE 8**

Brahms, Piano Quartet No. 3 in C minor, op. 60, I, the primary theme and the beginning of the transition, mm. 1–32 (short score)

24

pp pizz. n p

pp marc.

6— iii???

c: V

lead-in (2 bars) primary theme => transition

31

arco f

7 V

EXAMPLE 8  
(cont'd.)

also entails its stabilization, in part through its tonicization. By establishing C–E–G and C–E $\flat$ –G as equivalent tonic triads, the music draws the major and minor modes closer together, thereby furthering the evolution of music. According to Schoenberg, “Major and minor have evolved historically, ...containing everything that appeared in the seven old modes,” and “the remaining two will eventually be one” (*HL*, 96), “the chromatic scale” (*HL*, 247).

In their extension of Schoenberg’s analysis, Carpenter and Neff claim that the problem is “to make clear the network of relations to the tonic implied by...B $\flat$  minor and E minor.”<sup>128</sup> Schoenberg, however, only discusses E in his analysis; he does not even mention B $\flat$ .<sup>129</sup> Furthermore, after closing his analysis, he immediately goes on to say

<sup>128</sup> Carpenter and Neff, “Commentary,” in *MI*, 68; see also Carpenter, “Schoenberg’s ‘Tonal Body,’” 43–46.

<sup>129</sup> According to Carpenter, Schoenberg mentions a potential conflict between B and B $\flat$  in his *Form and Analysis* lectures. Carpenter and Neff, “Commentary,” in *MI*, 67; see also Carpenter 2005, 43. But as I explain below, this potential conflict only intimates the problem; it is not the problem itself.



### The Primary Theme in the Exposition

The mysterious, ominous music in mm. 1–30 (Example 8), with its bell-like tolls and its sinuous, creeping lines, introduces all the significant motives and gradually unveils the problem. In keeping with this sense of mystery, the music has an enigmatic form and function, appearing to Jonathan Dunsby (1981, 25–26) as an introduction, comprised of a period (mm. 1–10) plus a sentence (mm. 11–30), to Carpenter and Neff as a primary theme in the form of a sentence (with mm. 1–10 being the basic idea, mm. 11–21 being the repetition, and mm. 21–30 being the continuation),<sup>131</sup> and to Peter H. Smith (2005, 209; and 2006, 63) as the first part of the primary material, comprised of a pair of sentences (mm. 1–10 and mm. 11–30). We can acknowledge some truth in all of these functional designations if, following Janet Schmalfeldt (2011, 9), we allow for the reinterpretation of formal function and say that mm. 1–30 begin with the suspenseful tone of an introduction and become a primary theme, and that mm. 32–70 begin with the assertive tone of a primary theme and become a transition. The unfolding formal and tonal designs effect these transformations. Smith is correct that mm. 1–10 and mm. 11–30 are a pair of sentential thematic units related by varied repetition. Together they are basically periodic, except that they both close with half cadences in mm. 9 and 21, and they express the tonic minor region, albeit with a digression to the subtonic minor region in mm. 11–20, so mm. 1–30 are relatively tight knit and take on primary theme function. By way of contrast, mm. 32–70 do not fit a conventional model of phrase structure and are modulatory, so they are relatively loose and take on transition function. Some readers may not hear a half cadence in m. 21 on account of the anomalous IV<sup>7</sup> pre-dominant in m. 20, but Schoenberg at any rate hears “a lingering on V” following this point (*MI*, 315). Mm. 3–10 are the *Grundgestalt*, which contains all the piece’s seminal motives: not only *m* and *n* but also motive *o*, comprised of two forms of *m* in a descending line, E $\flat$ –D–C–B in mm. 5–6, and motive *p*, comprised of motive *o* in mm. 5–6 and an inversion (or retrograde) of *m*, B–C in m. 6. Motive *p* also appears in retrograde inversion, B–C–B $\flat$ –A $\flat$ –G in mm. 7–9. This latter statement of *p* presents two different versions of the seventh scale degree in C minor, B and B $\flat$ , which, as Carpenter and Neff have pointed out, hold the potential for conflict.<sup>132</sup> This potential conflict intimates the conflict between E and E $\flat$ , which is introduced by a variation of the retrograde inversion of *p*, *p*’: an inversion of *m*, E–F in m. 20, followed by motive *m*, E $\flat$ –D in mm. 20–21. As we have seen, E then reappears as an E-minor triad in mm. 28–30. Brahms marks E

<sup>131</sup> Carpenter and Neff, “Commentary,” in *MI*, 67; see also Carpenter 2005, 41.

<sup>132</sup> Carpenter and Neff, “Commentary,” in *MI*, 67; see also Carpenter 2005, 43.

for our notice here with the marcato marking. This reappearance of E involves the same transposition of  $p'$  in mm. 30–32 as the first appearance. By repeating this motive but presenting E in a more vivid and specific way, the music formulates the problem.

As Smith (2006, 65–66) observes, the E-minor six-three chord in mm. 28–30 is harmonically (and also metrically) ambiguous: E as a neighbor note or implied passing tone resolves to F in m. 31 as the seventh of V<sup>7</sup>, but the E-minor triad could also conceivably be iii<sup>6</sup>. The relation of tones to ground tones (roots) is therefore unclear: a conflict emerges between E and G as possible ground tones, a clash between E and the closest overtones of G, which means that *the six-three chord is dissonant*. But since the six-three chord is also consonant, it does not simply call for resolution; it also calls for recognition, sometime in the future.<sup>133</sup> As a dissonance, E in mm. 28–30 is also an unclear, remote overtone of G, as is indicated by the high, delicate, intermittent, and shifting sound of E in contrast to the low, resonant, continuous, and stationary sound of G. Thus E in mm. 28–30 palpably illustrates how the three kinds of problems—in the tone, the dissonance, and the musical idea—all come together in the musical work. This convergence is so striking that it may be this very E-minor triad that Schoenberg has in mind when he calls the six-three chord dissonant.<sup>134</sup>

### The Transition

The delicate but disquieting E launches the music by means of a lead-in (mm. 31–32) into the transition (mm. 32–70), which begins in an agitated manner with driving eighth notes, numerous sforzandi, and a full texture, and E also pushes the transition onward toward the secondary theme and its region. The transition begins with a variation of the *Grundgestalt*, mm. 32–42, shown in Example 10:  $m-m-p''-p''$  and a liquidation of  $p''$  instead of  $m-m-p-p$ . Another variation of the retrograde inversion of  $p$ ,  $p''$ , C–E $\flat$ –D–C–B $\flat$ –A $\flat$  in mm. 34–35, substitutes a variant of  $n$  (C–E $\flat$ ) for an initial inversion of  $m$ . In the course of a sequence,  $p''$  generates a variation of  $o$ ,  $o'$ , G–D–F–E $\flat$  in mm. 36–37, which substitutes an inversion of  $n$  (G–D) for an initial  $m$ . In the two statements of  $o'$  in mm. 36–38, E $\flat$  is juxtaposed with E more directly than in the primary theme. E shows itself to be an instigator, initiating an ascending melodic sequence and a crescendo that leads to the climax of the transition, an imperfect authentic cadence in m. 42. Following this climax,

<sup>133</sup> Smith (1997) has shown how Brahms often introduces other regions by exploiting the potential of linear six-three chords to be read as inversions and vice versa.

<sup>134</sup> Joseph Dubiel (1994) has analyzed another disruptive six-three chord in Brahms, the B $\flat$ -major triad in the first movement of Brahms's Piano Concerto No. 1 in D minor, op. 15, as an “abnorm” that is eventually integrated with tonal norms, much like a Schoenbergian problem.

primary theme ⇒ transition  
basic idea (2 bars)

continuation (9 bars)

32 *f*

37 *cresc.* *ff* IAC

**EXAMPLE 10**

Brahms, Piano Quartet No. 3 in C minor, op. 60, I, the beginning of the transition in the exposition, mm. 32–42 (melody only)

the transition gradually recedes in dynamics and textural density as it modulates to the mediant major by way of the mediant minor, reaching a half cadence in m. 52.

### The Secondary Theme

The noble secondary theme (mm. 70–110), with its stalwart melodic gestures and its sumptuous accompaniment, displays  $E_b$  as the honored tonal region of the mediant major, and it displays  $E$  as an aspirant to the mediant status of  $E_b$ . The theme is a large period, with an antecedent (mm. 70–77) that is repeated and varied (mm. 78–85, 87–93, and 95–101) and a consequent (mm. 102–10), each comprised of a compound basic idea plus a continuation. As shown in Example 11, the first antecedent begins with another variation of the *Grundgestalt* in mm. 70–73:  $n-m-m-p'-p'$  instead of  $m-m-p''-p''$ . The ascending sequence of the inversion of  $p'$  (mm. 72–73) parallels the descending sequence of  $p''$  in the transition. In the second antecedent,  $E$  appears once again as an appoggiatura in the inversion of  $m$   $E-F$  in m. 82 and—just in case we missed it—in mm. 84 and 85. The ascending melodic intervals, the rhythmic and metric accents, and the dynamic swells indicate  $E$ 's ardent yearning. The fourth antecedent, shown in a simplified form in Example 12, quiets down and turns to the mediant minor, as if to indicate the music's apprehension—what's taking the consequent so long?  $E$ , taking advantage of  $E_b$ 's momentary lapse of confidence, surfaces in m. 99 as the enharmonic Neapolitan region

secondary theme

FIRST ANTECEDENT

compound basic idea (4 bars)

*n* *m* *m* *p'* *p'*

70

*p* *espress.*

**EXAMPLE 11**

Brahms, Piano Quartet No. 3 in C Minor, op. 60, I, the beginning of the first antecedent in the secondary theme in the exposition, mm. 70–73 (melody only)

[secondary theme]

FOURTH ANTECEDENT

compound basic idea (3 bars)

continuation (4 bars)

95

*p* *espress.*

*cresc.*

*cresc.*

$\text{Eb}:$  i  $\text{V}$   $\text{E}:$  iv  $\text{iii}$

7 9

99

*cresc.*

7 4 6 7 7

$\text{Eb}:$  vii<sup>o</sup>/V  $\text{V}/\text{V}$   $\text{V}$

I V vii<sup>o</sup>  $\text{HC}$

**EXAMPLE 12**

Brahms, Piano Quartet No. 3 in C minor, op. 60, I, the fourth antecedent in the secondary theme in the exposition, mm. 95–101 (simplified)



**new theme**

ANTECEDENT

basic idea (2 bars)

continuation (4 bars)

*m* *m* *n* *m* *p'''* *p'''* *n* *n*

142

*ff*

HC

**EXAMPLE 13**

Brahms, Piano Quartet No. 3 in C minor, op. 60, I, the beginning of the new theme in the development, 142–47 (melody only)

of E $\flat$ , appropriating the music of the third antecedent in mm. 90–91 and transposing it up an augmented unison in mm. 98–99. E $\flat$  quickly comes to its senses and recaptures the music through an enharmonic pivot in m. 100 and an ascending melodic sequence in mm. 100–101 that launches the long-awaited consequent.<sup>135</sup>

### The New Theme in the Development

The development begins with another turn to the mediant minor in m. 122; once again, this move affords E an opportunity to emerge as the enharmonic Neapolitan region of E $\flat$  in m. 139. In order to establish the place of E in C minor, however, the music must prove the lineage of E apart from E $\flat$ , and this proof is partially worked out by the subsequent new theme. The first statement of this theme begins on I in B major in m. 142, pivoting from V in E minor, and it cadences on i in E minor in m. 154. The second statement begins on I in G major in m. 164, pivoting from V in C minor, and it fails to cadence on i in C minor in m. 176. Thus the theme articulates a mediant relation between B major and G major analogous that between E minor and C minor. To trace out the relation between the tonic C and the mediant E, the new theme combines the forms of the *Grundgestalt* in the primary theme and transition, associated with the tonic, and in the secondary theme, associated with the mediant. As shown in Example 13, the form of the *Grundgestalt* in the new theme (mm. 142–47) starts like that in the primary theme with two separated statements of *m*, B–A $\sharp$  in m. 142 and G $\sharp$ –F $\sharp$  in m. 143, proceeds like that in the secondary theme with two statements of a variation of the inversion of *p'*, *p'''*, E–B–E–F $\sharp$  in mm. 144–145 and F $\sharp$ –B–F $\sharp$ –G $\sharp$  in mm. 145–146, which substitute *n* for the first *m*, and ends like that in the transition by liquidating *p'''*. The music's

<sup>135</sup> The arrival of E $\flat$  major in m. 102 hardly resolves the tonal conflict with E. As Smith (2005) has observed, the climax is “somewhat brittle and forced” on account of the registral break and the agitated eighth notes.

heroic calling in the new theme to solve the problem is projected by the major key, the fortissimo dynamics, the full texture, and the predominance of ascending melodic motion with metric, rhythmic, and articulative accents. In the transitional passage between the statements of the theme (mm. 154–64), the music's head-to-head struggle with E, the initial local tonic, is projected by the minor key, the roving harmony, the forte dynamics, the divided texture, the ascending melodic sequence of motive *m* with metric, rhythmic, and articulative accents, the similarly accented ascending arpeggios, and the rhythmic conflicts.

### The Primary Theme Fused with the Transition in the Recapitulation

Having been intimated in the development, the mediant status of E is partially realized in the recapitulation of the primary theme fused with the transition, mm. 199–235. As shown in Example 9, E again appears as an E-minor triad in mm. 224–26 and is tonicized in mm. 224–30. In this case, E minor is only indirectly related to C minor as the submediant minor of the dominant major, because the surface tonicization of E minor is enveloped by a deeper I–vi–V progression in G major in mm. 223–35. E also appears as the third of a C-major triad in m. 206, an unstable V/iv chord in C minor, again actuated by *p*′, E–F–E♭–D in mm. 206–9, just as it was in mm. 20–21 in the exposition. This pattern repeats in mm. 210–13. Thus E is stabilized but in an unclear context and clarified but in an unstable context. Contrary to Carpenter and Neff's claim, balance is definitely not restored yet.<sup>136</sup>

### The Closing Zone

As Dunsby (1981, 34) and Smith (2005, 76; and 2006, 69) have both pointed out, the primary theme in the recapitulation may be in C minor, but its tonic chords actually prolong the dominant from the development, and the secondary theme (mm. 236–88) prolongs the dominant still further, because it is in the dominant major rather than the conventional tonic major. Consequently, the task of producing a tonic-function passage in C minor corresponding with the passage in E minor in the development (mm. 154–64) and echoing the mediant relation between B major and G major falls to the closing zone (mm. 288–326). The first thematic unit of the closing zone (mm. 288–303) recalls the sequential treatment of *m*, the vigorous arpeggios, the roving harmony, the conflicted rhythm, the divided texture, and the strong dynamics of the earlier passage. But the closing zone does not succeed in its task until the final thematic unit (mm. 313–26); this

<sup>136</sup> Carpenter and Neff, "Commentary," in *MI*, 73; see also Carpenter 2005, 63.

unit parallels the closing zone in the exposition (mm. 110–21) by restating the primary theme together with a closing countermelody in C minor.

E appears in progressively clearer and more stable ways in the closing zone as an alternate mediant of C. The closing zone begins on I in C major in m. 288, pivoting from V in F minor. As Smith (2005, 87) notes, a transposition of *m*, C–B, hints at an E-minor triad in m. 288 and actualizes iii in m. 289 as the bass ascends from C to E. These triads further stabilize E minor, though it is still only indirectly related to C minor as the mediant of the tonic major. E similarly appears as the third of I in C major m. 300. Example 14 shows how E appears in the run-up to the cadence in m. 313 that ushers in the final thematic unit: it occurs in m. 311 and m. 312, through a transposition of *m*, E–E $\flat$ , in an ambiguous pedal six-four chord prolonging V<sup>9</sup> in C minor. Since E or E $\flat$  can both be heard as a chord tone, they are brought together as alternate thirds of a tonic triad, but one without tonic function. Finally, during the concluding statement of the primary theme (mm. 313–26), the forms of *m* F–E $\flat$  in m. 318 and F–E in m. 319 unambiguously juxtapose E $\flat$  and E as alternate thirds of a tonic-function tonic triad in the repetitive harmonic progression i–iv–vii<sup>o7</sup>–i–iv–vii<sup>o7</sup>–I in mm. 317–319: the problem is solved. Yet no sooner is the solution reached than E disintegrates into F in the vii<sup>o</sup>/iv–iv<sup>6</sup> progression in m. 320: E still has a long way to go in the evolution of music before it is truly reconciled with C in C minor. Even just in the quartet as whole, in Smith’s words (2005, 17), “C $\sharp$  and E $\flat$ —the two pitches that would need to come together to form a transcendent major tonic—seem always to be at odds. Any attempt to bring them into unity creates the feeling of resistance ones gets when trying to force the wrong ends of two magnets together. When one pushes forward, the other is repelled.” And this resistance to transcendence contributes to the tragic expression that Smith has traced in the music.

Bookended by the movement’s only perfect authentic cadences in C minor, the solution to the problem of unrest coincides with the full manifestation of the ground tone; after all, the problem and the incomplete manifestation of the ground tone are one and the same condition. And the completion of these processes coincides with the end of the piece because this completion is the goal; there is nothing more to be said. In Schoenberg’s words, “We may well ask: Why, in what manner, and when does a piece of music close? The answer can only be a general one: As soon as the goal is reached” (*HL*, 126). At first glance, the solution being at the end of the piece might seem incompatible with Schoenberg’s intuition that the solution is seen in the E-minor triad’s production of C–E–G instead of C–E $\flat$ –G, a process that is completed with the beginning of the secondary theme in the recapitulation. But in the work of art, the whole can be seen in the part, or, in Schoenberg’s words, “Every little detail it reveals its truest,



316

*continuation* (8 bars)

*codetta* (2 bars)

Vln.

Vla.

Vc.

*express.*

*p*

*p*

*p*

Pno.

*m*

*f*

*m*

*sf*

*p*

6 7 4 7 4 6 4— 3

6 5 3 4 3 6 4— 3

vii° i iv vii° i iv vii° I 4 3 vii°/iv iv V

8<sup>vb</sup> i PAC

EXAMPLE 14  
(cont'd.)

The musical score is presented in two staves (treble and bass clef) with a key signature of two flats (C minor). The score is divided into three main sections: Exposition, Development, and Recapitulation. The Exposition section includes measures 1-31 (P), 31-52 (TR), 52-70 (S), and 70-110 (C). The Development section includes measures 118-122 and a 'new theme' starting at measure 142. The Recapitulation section includes measures 199-205 (P=>TR), 205-236 (S), and 288-304 (C). The score features various musical notations, including triplets (e.g., measures 1-3, 288-304), slurs, and dynamic markings like 'f' and 'p'. A box labeled 'C:' is located at the bottom left of the score.

**EXAMPLE 15**

The overall harmony and voice leading in Brahms, Piano Quartet No. 3 in C minor, op. 60, I

inmost essence.”<sup>137</sup> The E-minor triad’s production of C–E–G instead of C–E $\flat$ –G also appears in the overall harmony and voice leading of the piece, shown in Example 15, with increasingly dense layers of harmony being indicated with open noteheads, filled noteheads, and stemless notes: the piece moves from C as the ground tone (the tonic) in the primary theme and transition, through E $\flat$  in the secondary theme, through E in the development, which displaces E $\flat$ , to G in the development and recapitulation, all contained by C, heard again in the closing section.<sup>138</sup> Through the integration of processes witnessed here—the solution of the problem, the manifestation of the ground tone, the development of motives, and the evolution of music—such that the essence of the musical work appears in every cross-section, Brahms’s music serves as a prototype for Schoenberg’s theory of composition.<sup>139</sup>

### Conclusion

For Schoenberg, the tone is an idea of nature that the artist imitates in the musical work, thereby ideally bringing it to full consciousness. The tone is a chord in its essence but a mere tone in its phenomenon on account of the unclear relations of remote overtones to the ground tone (the fundamental). This obscurity is a problem that prompts the artist

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<sup>137</sup> Arnold Schoenberg, “The Relationship to the Text” (1912), in *SI*, 144.

<sup>138</sup> Dunsby (1981, 35) hears two misaligned large-scale arpeggiations that similarly feature both E and E $\flat$  as alternate mediants: the harmonic progression I–V–I, resolving to C minor in m. 313, and the tonal progression c[?]–E $\flat$ –G–C, resolving to C major in m. 288.

<sup>139</sup> Although Janet Schmalfeldt (1991) and others have combined Schenkerian and Schoenbergian analysis, some readers may question whether a Schenkerian notion of layers is compatible with Schoenberg’s understanding of harmony and voice leading. Noting that Schoenberg emphasizes the generative role of the motive and only ever shows a couple layers in his own analyses, Boss (1994, 210) has claimed that “Schoenberg’s structural levels, unlike Schenker’s, only go up as far as necessary to reach an unornamented motive.” But, as we have seen, the motive for Schoenberg is only a representation of the generative musical idea, not the idea itself, so it need not be the limit of linear analysis. According to Schoenberg, “an attempt to recognize and define the musical idea stands in clear contradiction to the sentimental poeticizing notion that a composition might arise from the motive as germ of the whole, as a plant grows from a seed” (*MI*, 109). Furthermore, the limits of Schoenberg’s own linear analyses do not necessarily represent the limits of linear analysis in accord with his theories. Schoenberg writes that “the harmonic plan of every musical composition” is “an extended cadence” (*HL*, 152), which can only mean that harmonic progressions occur in different layers from a background cadence to the series of chords in the foreground. It is important to note that in a sense the foreground is just as essential as the background, for only the entire piece in all its details presents the musical idea, the essence. In the words of Dudeque (2005, 129), “tonal structure presents a stratified organization for Schoenberg, each level with its own importance within the whole.” Even with Heinrich Schenker (1956 [1979], 12/68), “the content of the *second* and the *subsequent layers* is directed by that of the first layer, but at the same time it is directed by the goals in the foreground, which are mysteriously sensed and pursued.” “Richtet sich der Inhalt der *zweiten* und *folgenden Schichten* nach dem der ersten Schicht, zugleich aber nach dem geheimnisvoll geahnten und verfolgten Ziele im Vordergrund.”

to act. The artist uses the means of art to imitate the tone. Dissonances as imitations of remote overtones exhibit unclear relations of tones to ground tones (roots) and so require resolution or at least clarification. Imitation of the tone in a particular piece of music is the imitation of one particular tone, the ground tone (the tonic), which is the musical idea in its material aspect. Presentation of the musical idea through variation of the basic motive or the *Grundgestalt* solves a problem of unclear relations of tones through the victory or the self-sacrifice of the ground tone. This solution in turn contributes to the evolution of perception and music. These dialectical conceptions make up an integration network whose spaces are linked by a basic image-schematic complex that undergoes variation as the tone takes on various guises. This network establishes the unity of tonal and non-tonal music with respect to problems in the tone, the dissonance, and the musical idea, which Schoenberg posits but never clearly articulates, and which has proven to be equally elusive for Schoenberg's interpreters.

Schoenberg's theory of composition is illuminated by his analysis of Brahms's music as supplemented here, but also, as Michael Musgrave (1990, 136) and Smith (2005, 66) have both pointed out, even though Schoenberg's analyses reflect his subjective concerns, they nevertheless bring objective qualities of Brahms's music into focus. Contemplated with an eye to the musical idea and its problem, the parallel motivic and harmonic structures in Brahms's music merge into a deep, shimmering image, somewhat like the stereographs that were so popular in the late nineteenth and early twentieth centuries. In this image we see Schoenberg reflected, of course, but we also see through to Brahms: Brahms strives to penetrate the tone, just as Schoenberg does. And in doing so, Brahms reluctantly heralds an incipient dissolution of tonality, as Elmar Budde (1998, 276) has suggested. Whereas the conclusion of the Piano Quartet movement fuses major and minor, the conclusion of Brahms's melancholy Intermezzo in B minor, op. 119, no. 1, fuses tonic and dominant in mm. 65–67. According to Budde, this process announces a suspension of the dynamics of tonal music. As problematic as Schoenberg's theory of composition is, it speaks to his extraordinary powers as a composer and as a theorist that he heard Brahms's faint intimation of such a theory and answered it in such a single-minded and singular way, in word and in deed.



### Works Cited

- Arndt, Matthew. 2011. "Schenker and Schoenberg on the Will of the Tone." *Journal of Music Theory* 55/1: 89–146.
- Bauer, Amy. 2004. "Tone-Color, Movement, Changing Harmonic Planes: Cognition, Constraints, and Conceptual Blends in Modernist Music." In *The Pleasure of Modernist Music: Listening, Meaning, Intention, Ideology*, ed. Arved Ashby, 121–52. Rochester, N.Y.: University of Rochester Press.
- Bernstein, David W. 2003. "'Paths of Harmony' in the First Movement of Brahms's Cello Sonata in E minor, op. 38." *Current Musicology* 75: 169–83.
- Bhagal, Gurminder Kaur. 2006. "Debussy's Arabesque and Ravel's *Daphnis et Chloé* (1912)." *Twentieth-Century Music* 3/2: 171–99.
- Boss, Jack. 1994. "Schoenberg on Ornamentation and Structural Levels." *Journal of Music Theory* 38/2: 187–216.
- . 2000. "The 'Musical Idea' and Global Coherence in Schoenberg's Atonal and Serial Music." *Intégral* 14–15: 209–64.
- . 2008. "'Musical Idea' and Motivic Structure in Schoenberg's op. 11, no. 1." In *Musical Currents from the Left Coast*, ed. Jack Boss and Bruce Quaglia, 256–81. Middlesex: Cambridge Scholars Publishing.
- . 2009. "The Musical Idea and the Basic Image in an Atonal Song and Recitation of Arnold Schoenberg." *Gamut: Online Journal of the Music Theory Society of the Mid-Atlantic* 2/1.
- Brower, Candace. 2000. "A Cognitive Theory of Musical Meaning." *Journal of Music Theory* 44/2: 323–79.
- Budde, Elmar. 1978. "Schoenberg and Brahms." In *Bericht über den 1. Kongreß der Internationalen Schönberg-Gesellschaft*, ed. Rudolf Stephan, 20–24. Vienna: Verlag Elisabeth Lafite.
- . 1998. "Brahms oder der Versuch, das Ende zu denken." In *Abschied in die Gegenwart: Teleologie und Zuständlichkeit in der Musik*, ed. Otto Kolleritsch, 267–78. Vienna: Universal Edition.
- Caplin, William E. 1998. *Classical Form: A Theory of Formal Functions in the Instrumental Music of Haydn, Mozart, and Beethoven*. New York: Oxford University Press.
- Carpenter, Patricia. 1983. "'Grundgestalt' as Tonal Function." *Music Theory Spectrum* 5: 15–38.
- . 1984. "Musical Form and Musical Idea: Reflections on a Theme of Schoenberg, Hanslick, and Kant." In *Music and Civilization: Essays in Honor of Paul Henry Lang*, ed. Edmond Strainchamps and Maria Rika Maniates in collaboration with Christopher Hatch, 394–427. New York: Norton.
- . 1988a. "A Problem in Organic Form: Schoenberg's Tonal Body." *Theory and Practice* 13: 31–64.
- . 1988b. "Aspects of Musical Space." In *Explorations in Music, the Arts, and Ideas: Essays in Honor of Leonard B. Meyer*, ed. Eugene Narmour and Ruth A. Solie, 341–73. Stuyvesant: Pendragon Press.

- . 1991. "Music Theory and Aesthetic Form." *Studies in Music from the University of Western Ontario* 13: 21–47.
- . 1997. "Tonality: A Conflict of Forces." In *Music Theory in Concept and Practice*, ed. James M. Baker, David W. Beach, and Jonathan W. Bernard, 97–129. Rochester, N.Y.: University of Rochester Press.
- . 1998. "Schoenberg's Theory of Composition." In *The Arnold Schoenberg Companion*, ed. Walter B. Bailey, 209–22. Westport, Ct.: Greenwood Press.
- . 2005. "Schoenberg's 'Tonal Body.'" *Theory and Practice* 30: 35–68.
- Carpenter, Patricia, and Severine Neff. 1997. "Schoenberg's Philosophy of Composition: Thoughts on the 'Musical Idea and Its Presentation.'" In *Constructive Dissonance: Arnold Schoenberg and the Transformations of Twentieth-Century Culture*, ed. Juliane Brand and Christopher Hailey, 146–59. Berkeley: University of California Press.
- Cherlin, Michael. 1993. "Schoenberg and das *Unheimliche*: Spectres of Tonality." *The Journal of Musicology* 11/3: 357–73.
- . 2007. *Schoenberg's Musical Imagination*. Cambridge: Cambridge University Press.
- Cook, Nicholas. 2001. "Theorizing Musical Meaning." *Music Theory Spectrum* 23/2: 170–95.
- Covach, John R. 1992. "Schoenberg and the Occult: Some Reflections on the Musical Idea." *Theory and Practice* 17: 103–18.
- . 1996. "The Sources of Schoenberg's 'Aesthetic Theology.'" *19th-Century Music* 19/3: 252–62.
- . 2000. "Schoenberg's 'Poetics of Music', the Twelve-Tone Method, and the Musical Idea." In *Schoenberg and Words: The Modernist Years*, ed. Charlotte M. Cross and Russell A. Berman, 309–46. New York: Garland Publishing.
- Cramer, Alfred. 2002. "Schoenberg's *Klangfarbenmelodie*: A Principle of Early Atonal Harmony." *Music Theory Spectrum* 24/1: 1–34.
- Cross, Charlotte M. 1980. "Three Levels of 'Idea' in Schoenberg's Thought and Writings." *Current Musicology* 30: 24–35.
- . 1994. "Schoenberg's Earliest Thoughts on the Theory of Composition: A Fragment from c. 1900." *Theoria* 8: 113–33.
- . 2005. "Schoenberg's *Gedanke* Manuscripts: Part of the Theoretical Explanation of Composition with Twelve Tones?" *Tijdschrift voor muziektheorie* 10/3: 234–46.
- Dahlhaus, Carl. 1987. *Schoenberg and the New Music: Essays by Carl Dahlhaus*. Trans. Derrick Puffett and Alfred Clayton. Cambridge: Cambridge University Press.
- Dineen, Murray. 1989. "Problems of Tonality: Schoenberg and the Concept of Tonal Expression." Ph.D. diss., Columbia University.
- . 1993. "From the Gerald Strang Bequest in the Arnold Schoenberg Institute: Documents of a Teaching." *Theory and Practice* 18: 109–25.
- . 2000. "Schönberg's Viennese Tuition, Viennese Students, and the Musical Idea." *Journal of the Arnold Schönberg Center* 2: 56–59.
- . 2004. "'Tonal problem': Zu einem historisch-systematischen Analysemodell." Trans. Ludwig Holtmeier. In *Musiktheorie zwischen Historie und Systematik*, ed. Ludwig Holtmeier, Michael Polth, and Felix Diergarten, 167–71. Augsburg: Wißner-Verlag.
- . 2005a. "The Tonal Problem as a Method of Analysis." *Theory and Practice* 30: 69–96.

- . 2005b. “Tonal Problem, Carpenter Narrative, and Carpenter Motive in Schubert’s Impromptu, op. 90, no. 3.” *Theory and Practice* 30: 97–120.
- Dubiel, Joseph. 1994. “Contradictory Criteria in a Work of Brahms.” *Brahms Studies* 1: 81–110.
- Dudeque, Norton. 2005. *Music Theory and Analysis in the Writings of Arnold Schoenberg (1874–1951)*. Aldershot, UK: Ashgate.
- Dunsby, Jonathan. 1981. *Structural Ambiguity in Brahms: Analytical Approaches to Four Works*. Ann Arbor: UMI Research Press.
- Falck, Robert. 1982. “Emancipation of the Dissonance.” *Journal of the Arnold Schoenberg Institute* 6/1: 106–11.
- Fahlbusch, Markus. 2006. *Musikalischer Gedanke und Atonalität: Strukturmodelle musikalischen Denkens im II. Streichquartett op. 10 von Arnold Schönberg*. Tutzing: Hans Schneider.
- Fauconnier, Gilles, and Mark Turner. [1998] 2010. “Conceptual Integration Networks.” *Cognitive Science* 22/2: 133–87. Rev. ed. Social Science Research Network, www.ssrn.com.
- . 2002. *The Way We Think: Conceptual Blending and the Mind’s Hidden Complexities*. New York: Basic Books.
- . “Rethinking Metaphor.” 2008. In *The Cambridge Handbook of Metaphor and Thought*, ed. Raymond W. Gibbs, Jr., 53–66. New York: Cambridge University Press.
- Fukuchi, Hidetoshi. 2004. “‘Begleitungsmusik zu einer Lichtspielszene,’ op. 34: Evidence of Arnold Schoenberg’s *musikalische Gedanke*.” Ph.D. diss., University of North Texas.
- Goehr, Alexander. 1998. “Schoenberg and Karl Kraus: The Idea Behind the Music.” In *Finding the Key: Selected Writings of Alexander Goehr*, ed. Derrick Puffett, 124–41. London: Faber and Faber Limited.
- Gur, Golan. 2008. “Body, Forces, and Paths: Metaphor and Embodiment in Jean-Philippe Rameau’s Conceptualization of Tonal Space.” *Music Theory Online* 14/1.
- Haimo, Ethan. 2006. *Schoenberg’s Transformation of Musical Language*. Cambridge: Cambridge University Press.
- . 2010. “The Rise and Fall of Radical Athematicism.” In *The Cambridge Companion to Schoenberg*, ed. Jennifer Shaw and Joseph Auner, 94–107. Cambridge: Cambridge University Press.
- Heneghan, Áine. 2005. “An Affinity with Bach.” *Journal of the Arnold Schönberg Center* 7: 99–123.
- Hepokoski, James A., and Warren Darcy. 2006. *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata*. New York: Oxford University Press.
- Hinton, Stephen. 2010. “The Emancipation of Dissonance: Schoenberg’s Two Practices of Composition.” *Music & Letters* 91/4: 568–79.
- Hyer, Brian. 2002. “Tonality.” In *The Cambridge History of Western Music Theory*, ed. Thomas Christensen, 726–52. Cambridge: Cambridge University Press.
- Jacob, Andreas. 2000. “Das Verständnis von Tonalität in Arnold Schönbergs theoretischen Schriften.” *Musiktheorie* 15/1: 3–18.
- . 2001. “Die Entwicklung des Konzepts des musikalischen Gedankes, 1925–1934.” *Journal of the Arnold Schönberg Center* 3: 177–90.
- . 2005. *Grundbegriffe der Musiktheorie Arnold Schönbergs*. 2 vols. Hildesheim: Georg Olms Verlag.

- Jenkins, J. Daniel. 2007. "Issues of Form in Schoenberg's Atonal Period Vocal Music: Three Case Studies." Ph.D. diss., University of Rochester.
- Johnson, Mark. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: The University of Chicago Press.
- Johnson, Shersten R. 2004. "Hearing the Unvoiceable: Writer's Block in Benjamin Britten's *Death in Venice*." Ph.D. diss., University of Wisconsin–Madison.
- Kandinsky, Wassily. [1912] 1914. *Concerning The Spiritual in Art*. Trans. M. T. H. Sadler. Reprint, New York: Dover Publications, 1977.
- Kurth, Richard. 2000. "Moments of Closure: Thoughts on the Suspension of Tonality in Schoenberg's Fourth Quartet and Trio." In *Music of My Future: The Schoenberg Quartets and Trio*, ed. Reinhold Brinkmann and Christian Wolff, 139–60. Cambridge: Harvard University Press.
- . 2001. "Suspended Tonalities in Schönberg's Twelve-Tone Compositions." *Journal of the Arnold Schönberg Center* 3: 239–65.
- Lakoff, George, and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- . 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books.
- Lakoff, George, and Rafael E. Núñez. 2000. *Where Mathematics Comes From: How the Embodied Mind Brings Mathematics into Being*. [New York]: Basic Books.
- Morgan, Robert P. 2010. "Two Early Schoenberg Songs: Monotonicity, multitonicity, and *schwebende Tonalität*." In *The Cambridge Companion to Schoenberg*, ed. Jennifer Shaw and Joseph Auner, 53–67. Cambridge: Cambridge University Press.
- Musgrave, Michael. 1990. "Schoenberg's Brahms." In *Brahms Studies: Analytical and Historical Perspectives: Papers Delivered at the International Brahms Conference, Washington, DC, 5–8 May 1983*, ed. George S. Bozarth, 123–37. Oxford: Clarendon Press.
- Neff, Severine. 1993a. "Schoenberg and Goethe: Organicism and Analysis." In *Music Theory and the Exploration of the Past*, ed. Christopher Hatch and David W. Bernstein, 409–33. Chicago: University of Chicago Press.
- . 1993b. "Schoenberg's Theoretical Writings After the Harmonielehre: A Study of the Published and Unpublished Manuscripts." *College Music Symposium* 33–34: 172–90.
- . 1994. "Schoenberg and Analysis: Reworking a Coda of Brahms." *International Journal of Musicology* 3: 187–201.
- . 1999. "Schoenberg as Theorist: Three Forms of Presentation." In *Schoenberg and His World*, ed. Walter Frisch, 55–84. Princeton: Princeton University Press.
- . 2011. "Editing Schoenberg's Music-Theoretical Manuscripts: Problems of Incompleteness and Authorship." In *Arnold Schönberg in seinen Schriften: Verzeichnis—Fragen—Editorisches*, ed. Hartmut Krones, 193–216. Vienna: Böhlau Verlag.
- Núñez, Rafael E. 2005. "Creating Mathematical Infinities: Metaphor, Blending, and the Beauty of Transfinite Cardinals." *Journal of Pragmatics* 37/10: 1717–41.
- Perry, Jeffrey. 2000. "Music, Evolution and the Ladder of Progress." *Music Theory Online* 6/5.
- Phipps, Graham H. 1984. "Comprehending Twelve-Tone Music as an Extension of the Primary Musical Language of Tonality." *College Music Symposium* 24/2: 35–54.

- Quaglia, Bruce. 2008. "Tonal Space and the 'Tonal Problem' in Schoenberg's op. 11, no. 1." In *Musical Currents from the Left Coast*, ed. Jack Boss and Bruce Quaglia, 236–55. Middlesex: Cambridge Scholars Publishing.
- Raff, Christian. 2006. *Gestalte Freiheit: Studien zur Analyse der frei atonalen Kompositionen A. Schönbergs—auf der Grundlage seiner Begriffe*. Hofheim: Wolke Verlag.
- Reineke, Christian. 2007. *Der musikalische Gedanke und die Fasslichkeit als zentrale musiktheoretische Begriffe Arnold Schönbergs*. Kassel: Bosse.
- Saslaw, Janna K. 1996. "Forces, Containers, and Paths: The Role of Body-Derived Image Schemas in the Conceptualization of Music." *Journal of Music Theory* 40/2: 217–43.
- . 1997–1998. "Life Forces: Conceptual Structure in Schenker's *Free Composition* and Schoenberg's *The Musical Idea*." *Theory and Practice* 22–23: 17–33.
- Says, Elizabeth. 2003. "Narrative, Metaphor, and Conceptual Blending in 'The Hanging Tree.'" *Music Theory Online* 9/1.
- Schenker, Heinrich. [1956] 1979. *Der freie Satz. Vol. 3 of Neue musikalische Theorien und Phantasien* (1935). 2<sup>nd</sup> ed. Ed. Oswald Jonas. Vienna: Universal Edition. Trans. Ernst Oster as *Free Composition. Vol. 3 of New Musical Theories and Fantasies*. New York: Longman.
- Schiano, Michael Jude. 1992. "Arnold Schoenberg's *Grundgestalt* and Its Influence." Ph.D. diss., Brandeis University.
- Schmalfeldt, Janet. 1991. "Towards a Reconciliation of Schenkerian Concepts with Traditional and Recent Theories of Form." *Music Analysis* 10/3: 233–87.
- . 2011. *In the Process of Becoming: Analytic and Philosophical Perspectives on Form in Early Nineteenth-Century Music*. New York: Oxford University Press.
- Schoenberg, Arnold. [1909–1910] 2003. "Aphorismen." *Die Musik* 9/4: 159–63. Trans. Joseph Auner as "Aphorisms," in *A Schoenberg Reader: Documents of a Life*, 63–67. New Haven: Yale University Press.
- . [1911] 1978. *Harmonielehre*. 1<sup>st</sup> ed. Leipzig: Universal Edition. 3<sup>rd</sup> ed. Vienna: Universal Edition, 1922. Trans. Roy E. Carter as *Theory of Harmony*. Berkeley: University of California Press.
- . [1954] 1969. *Structural Functions of Harmony*. 2<sup>nd</sup> ed. Ed. Leonard Stein. Reprint, London: Faber and Faber, 1983.
- . 1967. *Fundamentals of Musical Composition*. Ed. Gerald Strang with Leonard Stein. London: Faber and Faber.
- . 1974. "Vortrag / 12 TK / Princeton." Trans. Claudio Spies. *Perspectives of New Music* 13/1: 58–136.
- . 1975. *Style and Idea: Selected Writings of Arnold Schoenberg*. Ed. Leonard Stein. Trans. Leo Black. New York: St. Martin's Press.
- . 1993. "Four Fragments by Arnold Schoenberg." Trans. Daniela Bartha. *Theory and Practice* 18: 1–27.
- . 1994. *Coherence, Counterpoint, Instrumentation, Instruction in Form / Zusammenhang, Kontrapunkt, Instrumentation, Formenlehre*. Ed. Severine Neff. Trans. Charlotte M. Cross and Severine Neff. Lincoln: University of Nebraska Press.
- . 1995. *The Musical Idea and the Logic, Technique, and Art of Its Presentation*. Ed. and trans. Patricia Carpenter and Severine Neff. New York: Columbia University Press.

- . 1998. “Two Unpublished Manuscripts: Excerpts from Arnold Schoenberg’s Second Book on Harmony and His Text on Performance.” Ed. Severine Neff. *Gamut* 8: 19–30.
- . 2007. “Two Undated Manuscripts from Schoenberg’s *Gedanke* Project: Commentary, Transcriptions, and Translations.” Trans. Charlotte M. Cross. *Theory and Practice* 32: 153–201.
- Simms, Bryan R. 2000. *The Atonal Music of Arnold Schoenberg, 1908–1923*. Cary, NC: Oxford University Press.
- Smith, Peter H. 1997. “Brahms and Motivic 6/3 Chords.” *Music Analysis* 16/2: 175–217.
- . 2005. *Expressive Forms in Brahms’s Instrumental Music: Structure and Meaning in His Werther Quartet*. Bloomington: Indiana University Press.
- . 2006. “You Reap What You Sow: Some Instances of Rhythmic and Harmonic Ambiguity in Brahms.” *Music Theory Spectrum* 28/1: 57–97.
- Spitzer, Michael. 2003. “The Metaphor of Musical Space.” *Musicae scientiæ* 7/1: 101–20.
- . 2004. *Metaphor and Musical Thought*. Chicago: University of Chicago Press.
- Stuckenschmidt, H. H. 1977. *Schoenberg: His Life, World and Work*. Trans. Humphrey Searle. London: John Calder.
- Turner, Mark. 1987. *Death Is the Mother of Beauty: Mind, Metaphor, Criticism*. Chicago: The University of Chicago Press.
- . 2012. *Blending and Conceptual Integration*. <http://www.markturner.org/blending.html>.
- Urista, Diane. 2001. “Embodying Music Theory: Image Schemas as Sources for Musical Concepts and Analysis, and as Tools for Expressive Performance.” Ph.D. diss., Columbia University.
- White, Pamela C. 1985. *Schoenberg and the God-Idea: The Opera “Moses und Aron.”* Ann Arbor: UMI Research Press.
- Zbikowski, Lawrence M. 1999. “The Blossoms of ‘Trockne Blumen’: Music and Text in the Early Nineteenth Century.” *Music Analysis* 18/3: 307–45.
- . 2002. *Conceptualizing Music: Cognitive Structure, Theory, and Analysis*. Oxford: Oxford University Press.
- . 2002–2003. “Music Theory, Multimedia, and the Construction of Meaning.” *Intégral* 16–17: 251–68.
- . 2008. “Metaphor and Music.” In *The Cambridge Handbook of Metaphor and Thought*, ed. Raymond W. Gibbs, Jr., 502–24. New York: Cambridge University Press.