
Olli VÄISÄLÄ

*Observations on Harmony, Voice-leading, and “Idea”
in Schoenberg’s Piano Piece Op. 11 No. 1*

Abstract

This analysis of Schoenberg’s Op. 11 No. 1 demonstrates ways in which two register-sensitive principles of harmony and voice-leading shed new light on its pitch organization.

The *11-vs-1 principle* posits a distinction in harmonic stability between the registrally ordered intervals 11 and 1 (hereafter *roi-11* and *roi-1*). This is manifest both in local relationships that suggest functional consonance and dissonance and in the large-scale emergence of a “group dissonance,” i.e., the temporary predominance of *roi-1* in marking the climactic high point of tensions.

The *proximity principle* distinguishes between the functions of “stepwise” and larger horizontal intervals. Whereas the former serve a purely horizontal function in voice-leading connectives, the latter imply arpeggiation. This distinction helps to reveal connections between prominent harmonies and linear frameworks, concerning in particular horizontalizations of two referential harmonies—the first and last block chords—and their changing relationships.

[...]

Keywords

Schoenberg, harmony, voice-leading, idea, register, consonance and dissonance, narrative

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Observations on Harmony, Voice-leading, and “Idea” in Schoenberg’s Piano Piece Op. 11 No. 1

Olli VÄISÄLÄ

1. INTRODUCTION

1.1 The significance of registration

Among Schoenberg’s non-tonal compositions, Op. 11 No. 1 (1909) is the first in his list of opus numbers and the first composed for a purely instrumental medium.¹ Owing to both its historical significance and artistic impressiveness, it has been the subject of numerous analyses. Nevertheless, I will suggest in this paper that crucial aspects of its pitch organization are yet to be exposed. Whereas previous analysts have extensively discussed its pitch configurations in terms of relationships to conventional tonality,² pitch-class sets,³ and various motivic aspects,⁴ I will argue that it manifests principles of harmony and voice-leading that cannot be captured by any of those approaches. Despite features

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- 1 As regards the chronology, see Jan Maegaard, *Studien zur Entwicklung des dodekaphonen Satzes bei Arnold Schönberg* (Copenhagen: Wilhelm Hansen, 1972).
 - 2 E.g., Hugo Leichtentritt, *Musikalische Formenlehre*, 3rd ed. (Leipzig: Breitkopf & Härtel, 1927); David Ogdon, “How Tonality Functions in Schoenberg’s Opus 11, No. 1,” *Journal of the Arnold Schoenberg Institute* 5/2 (1981), 169–81; Ethan Haimo, *Schoenberg’s Transformation of Musical Language* (Cambridge: Cambridge University Press, 2006). On the other hand, Jack Boss makes, in *Schoenberg’s Atonal Music: Musical Idea, Basic Image, and Specters of Tonal Function* (Cambridge: Cambridge University Press, 2019, <https://doi.org/10.1017/9781108296991>), an experimental attempt at a Schenkerian reading of Op. 11 No. 1 in E major (following Edwin von der Nüll’s analysis from 1932) to demonstrate that the piece “fails to sustain a traditional contrapuntal structure” (ibid., 35; my emphasis) and that “the pitch organization of Op. 11, No. 1 is different enough that it deserves a new label – ‘atonal’” (ibid., 21).
 - 3 E.g., Allen Forte, “The Magical Kaleidoscope: Schoenberg’s First Atonal Masterwork, Opus 11, Number 1,” *Journal of the Arnold Schoenberg Institute* 5 (1981), 127–68.
 - 4 E.g., George Perle, *Serial Composition and Atonality* (Berkeley: University of California Press, 1962); Ethan Haimo, “Atonality, Analysis, and the Intentional Fallacy,” *Music Theory Spectrum* 18/2 (1996), 167–99, <https://doi.org/10.2307/746023>; Jack Boss, “‘Musical Idea’ and Motivic Structure in Schoenberg’s Op. 11, No. 1,” in Jack Boss and Bruce Quaglia (eds.), *Musical Currents from the Left Coast* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), 256–81 (an essentially similar motivic analysis is to be found in Boss, *Schoenberg’s Atonal Music*). There is no clear distinction between motivic and set-theoretical approaches. While George Perle is by no means an exponent of pitch-class set theory, his notion of the initial “cell” in the analysis of the opening of Op. 11 No. 1 is essentially identical to the set-theoretical notion of the [014] trichord (or 3-3) (Perle, *Serial Composition and Atonality*, 10 ff.).

that suggest associations with tonal resources, such as the abundance of thirds and sixths in harmony, the treatment of harmonies exhibits functional principles that clearly deviate from conventional tonality. Moreover, because the principles I will describe depend crucially on the registral distribution of pitches—concerning in particular occurrences of interval class 1—they cannot be approached in terms of pitch *classes* or sets thereof.⁵ Although I will base my argument on empiric analytical observations, it is worthwhile to first note what Schoenberg himself had to say about registral issues in his early non-tonal music in his *Theory of Harmony*:

Even the spacing is obligatory; as soon as a tone is misplaced the meaning changes, the logic and utility is lost, coherence seems destroyed. Laws apparently prevail here. What they are, I do not know. Perhaps I shall know in a few years. Perhaps someone after me will find them.⁶

This suggests that Schoenberg felt increased rather than decreased sensitivity to registral issues as determinants of harmonic “logic,” “utility,” and “coherence” during his stylistic transformation away from conventional tonality. Given that such issues are already crucial to the “laws” of tonal syntax (as evident in the functional differences between 5/3, 6/3, and 6/4 chords), this strongly encourages analysts to adopt register-sensitive approaches in their search for “laws” pertinent to non-tonal works.

In this case study of Op. 11 No. 1, I will demonstrate the significance of certain registral distinctions for the organization of this seminal work. I will focus on the manifestations and ramifications of two basic register-sensitive principles (or “laws”) of harmony and voice-leading, arguing that this will considerably advance our analytical understanding of the piece. The first principle, to be called the *11-vs-1 principle*, concerns the contrasting harmonic functions of the two registral orderings of interval class 1. The second principle, to be called the *proximity principle*, concerns the different implications of “stepwise” and larger horizontal intervals for harmony and voice-leading. In addition, a register-sensitive orientation to analysis will be evident in several supplementary observations about harmony and, among other aspects, in a special focus on outer-voice organization. The two basic principles are similar to those identified in my previous studies on post-tonal prolongation as relevant to Op. 19 No. 2 and parts of Op. 11 No. 2, which implies that Op. 11

5 In contrast to Ogdon, Haimo does not identify specific keys in Op. 11 No. 1, but he approaches its harmony in terms of “added-semitone” tertian harmonies, suggesting that “[t]he vocabulary may have changed dramatically in the decade since 1899, but many basic elements of the syntax remain” (Haimo, *Schoenberg’s Transformation*, 312). The present analysis will suggest the opposite: Haimo deserves credit for illuminating aspects of continuity in Schoenberg’s harmonic *vocabulary*, but he fails to recognize new aspects of *syntax*, owing to his identification of all instances of interval class 1 as “semitones,” ignoring their registral realization.

6 Arnold Schoenberg, *Theory of Harmony*, trans. Roy E. Carter (London: Faber and Faber, 1978 [German original 1911]), 421.

No. 1 is not an isolated case with regard to their pertinence to Schoenberg.⁷ Nevertheless, I will make no claims about their general applicability. While this case study will demonstrate the organizational potential of register-sensitive “laws” for Schoenberg, the forms taken by such “laws” are likely to depend on piece-specific contexts and might only be determined through individual examination.

My primary focus will be on the analytical productivity and descriptive power of the concepts employed. Although I will make some notes about how the present observations relate to Schoenberg’s own notions about musical organization as expressed in his various writings, this will remain a secondary issue. Such an attitude is, I would suggest, in line with those writings themselves, in which Schoenberg recognized his deficient knowledge of the pertinent “laws”—as in the above quotation—thus leaving plenty of room for free analytical inquiry.⁸ One specifically Schoenbergian notion, that of “idea” as large-scale problem-solving, will play an important role in the analysis, but even in this case my primary motivation for invoking it is its analytical productivity. As will become evident below, the register-sensitive principles at issue not only shed light on basic aspects of harmony and voice-leading in Op. 11 No. 1 but also offer a fresh perspective for viewing problems and their treatment in ways that clearly resonate with Schoenberg’s notion of “idea.” The concept of a *registally ordered interval* will be crucial for the discussion; for brevity, I will label registally ordered intervals as *roi-1*, *roi-2*, etc., up to *roi-11*.⁹

1.2 Two basic principles

The 11-vs-1 principle posits that *roi-11* (“major seventh”) functions as a stable element in harmony, whereas *roi-1* (“minor second” or “ninth”) functions as an element of instability or tension.¹⁰ As will be clarified below, this principle has important manifestations on

7 Olli Väisälä, “Concepts of Harmony and Prolongation in Schoenberg’s Op. 19/2,” *Music Theory Spectrum* 21/2 (1999), 230–59, <https://doi.org/10.2307/745863>.

8 In his 1949 essay “My Evolution,” Schoenberg mused about the study of such “laws”: “What a composer can contribute to the solution of this problem, even if his mind is capable of research, is not of much consequence; he is too much prejudiced by the intoxicating recollection of the inspiration that enforced production.” Arnold Schoenberg, *Style and Idea: Selected Writings of Arnold Schoenberg*, ed. Leonard Stein, trans. Leo Black (London: Faber and Faber, 1975), 87.

9 The registally ordered interval between two pitches is the number of semitones by which the lower pitch must be raised in order to obtain the pitch class of the higher pitch.

10 Because *roi-11* and *roi-1* approximate the 15th and 17th harmonics, respectively, the 11-vs-1 principle is in line with Schoenberg’s definitions of “consonances as the closer, simpler relations to the fundamental tone, dissonances as those that are more remote, more complicated” (*Theory of Harmony*, 21). However, psychoacoustical phenomena such as critical band (R. Plomp and W. J. M. Levelt, “Tonal Consonance and Critical Bandwidth,” *Journal of the Acoustical Society of America* 38/4 [1965], 548–60, <https://doi.org/10.1121/1.1909741>) and virtual pitch (Ernst Terhardt, “Pitch, Consonance, and Harmony,” *The Journal of the Acoustical Society of America* 55/5 [1974]: 1061–69, <https://doi.org/10.1121/1.1914648>), often cited as relevant to consonance and dissonance, do not seem to support the 11-vs-1 principle in a clear and direct way. Although a simple semitone typically produces stronger critical-band effects (beating and roughness) than a major seventh, this difference vanishes when comparing larger realizations of *roi-1* (minor

both the small and the large scale in Op. 11 No. 1. At the beginning and end, *roi-11* and *roi-1* play local roles suggesting functional consonance and dissonance, but there is also an important large-scale process that leads from the opening *roi-11*-dominated harmonic environment to the predominance of *roi-1* and back. Whereas the *11-vs-1* principle defines interval functions in a non-traditional way, and thus depends strongly on contextual establishment, the proximity principle is basically familiar from conventional tonality.¹¹ Under this principle, small horizontal intervals or “steps”—by default half and whole steps—function as *voice-leading intervals*, or as purely horizontal connectives in embellishments such as passing and neighboring tones, but notes separated by larger intervals have harmonic implications, suggesting horizontalization of verticalities, or arpeggiation.¹² By “step”, I will refer primarily to simple half and whole steps. Whether larger horizontal *roi-1s* and *roi-2s* (“ninth”) should be perceived as octave-extended steps, substituting for them in voice-leading functions, is a question that involves considerable ambiguity and will be taken up below (the ambiguity of larger horizontal *roi-1s* will be highly pertinent to my analysis of “idea”).¹³ However, horizontal *roi-11s* and *roi-10s* (“sevenths”) will be taken unequivocally as arpeggiations.¹⁴

In my previous study, I demonstrated the organizational significance of these principles in Op. 19 No. 2, focusing on the notion of post-tonal *prolongation*, as defined by Jo-

ninths) with *roi-11s*. Moreover, the difference between the 15th and 17th harmonic is negligible for virtual-pitch perception, as both are outside the range most relevant for this phenomenon (the faculty to perceive the fundamental on the basis of its harmonics). As will be discussed in section 5, a more cogent psychological explanation for the emergence of the *11-vs-1* principle might be based on the stronger association of *roi-1* with the strongest voice-leading interval, the half step, which creates resistance to its perception as a stable verticality. On this issue, see also Väisälä, “Concepts,” 234 ff. I have discussed the relevance of harmonic series to post-tonal music more extensively in Olli Väisälä, “Prolongation of Harmonies Related to the Harmonic Series in Early Post-Tonal Music,” *Journal of Music Theory* 46 [2002], 207–83, <https://doi.org/10.1215/00222909-46-1-2-207>.

- 11 The proximity principle is also psychoacoustically supported by the significance of pitch proximity for auditory streams (see, e.g., Albert S. Bregman, *Auditory Scene Analysis* [Cambridge, Mass.: MIT Press, 1990]).
- 12 Cf. Joseph Straus’s formulation, concerning tonal music: “Melodic motion by step takes place within a single voice; motion by an interval larger than a step goes from voice to voice and arpeggiates some harmony” (Joseph Straus, “The Problem of Prolongation in Post-Tonal Music,” *Journal of Music Theory* 31/1 [1987], 1–22; 6, <https://doi.org/10.2307/843544>). In both tonal and post-tonal music, the distinction between voice-leading and arpeggiating intervals may involve some context-based flexibility. For example, $V6/5$ in C major can be expressed with an Alberti bass figure $B_3-G_4-F_4-G_4$, in which the whole step $F-G$ stands for an arpeggiation. For a post-tonal example, I suggest in my analysis of Webern’s Op. 3 No. 1 that whole steps may function either as voice-leading intervals or arpeggiations according to context (Olli Väisälä, “Prolongation of Harmonies Related to the Harmonic Series in Early Post-Tonal Music,” *Journal of Music Theory* 46 [2002], 207–83, <https://www.jstor.org/stable/4147681>). The present analysis includes a voice-exchange pattern within which I find it intuitive to identify both notes of a whole step as being present in harmony (Example 7[a]).
- 13 By “larger” *roi-1s* and *roi-2s*, I refer to the realizations of these intervals that are not simple half or whole steps.
- 14 There are two reasons for this. First, “sevenths” are perceptually more dissimilar than “ninth” to “steps.” Second, as the analysis will illustrate, “sevenths” (both *roi-11* and *roi-10*) are an integral part of the vocabulary of stable harmonies in Op. 11 No. 1, enhancing the harmonic implications of their horizontal occurrences.

seph Straus’s four conditions.¹⁵ Arguing for the need to allow for registral distinctions when considering those conditions, I identified the contrast between *roi-11* and *roi-1* as pertinent to the *consonance–dissonance condition* and the proximity principle as pertinent to the *harmony/voice-leading condition* and *embellishment condition* in Op. 19 No. 2.¹⁶ However, although that study showed that the two principles can (at least occasionally) support prolongational relationships, they can be operative in music in various ways that by no means necessarily lead to the emergence of full-fledged prolongational structures. The present analysis is a case in point: while I show how the two principles open important perspectives on the organization of Op. 11 No. 1, I do not aim at an all-encompassing prolongational reading of it; in fact, I will explicitly identify features that resist prolongational interpretation.

In brief, the analysis will have three main aims. The first is to demonstrate the descriptive power of the *11-vs-1* principle for harmony on both the small and the large scale in Op. 11 No. 1. The second is to illustrate the pertinence of the proximity principle to its linear organization and horizontal-vertical relationships. Despite eschewing an all-encompassing prolongational hierarchy, I will illustrate, using quasi-Schenkerian sketches, that an important organizational principle in Op. 11 No. 1 involves the multilevel linearization of harmonies of primary articulatory significance. The third aim involves a more complex dimension of analysis. In addition to elucidating basic issues of harmony and voice-leading, the present principles help to identify prominent elements of *unclarity* or interpretational *problems* whose compositional significance is substantiated by subsequent events that suggest a concern for their clarification or solution—observations on which I shall base my analysis of “idea.”

1.3 The character conflict and form

Before illustrating these aspects of pitch organization, we should briefly take note of a vital non-pitch feature and its significance for the design of Op. 11 No. 1, namely, a conflict in character between two contrasting kinds of material. This issue has been extensively explored by Reinhold Brinkmann, who identifies the contrasting passages as “thematic” and “outbreak zones” (“*Ausbruchszonen*”).¹⁷ I will use the labels *A-material* and *B-material*,

15 Väisälä, “Concepts”; Straus, “The Problem.”

16 To be precise, that paper (Väisälä, “Concepts,” 235) identifies the proximity principle as “the simple notion relevant to both conditions 1 and 4 [the consonance–dissonance and the harmony/voice-leading condition] that the smallest, ‘stepwise’ intervals tend to be avoided as consonant harmonic intervals, on the one hand and, favored as voice-leading intervals, on the other.” In the present study, “proximity principle” will refer only to the latter aspect. The principle referred to here as the “11-vs-1 principle” is evident in the rules of consonance (ii) and (iii) identified for Op. 19 No. 2 (*ibid.*, 241).

17 Reinhold Brinkmann, *Arnold Schönberg: Drei Klavierstücke Op. 11* (Wiesbaden: Franz Steiner, 1969).

as in Example 1 below: whereas the opening A-material features contemplative melodic material with relatively small intervals and slow note values, the B-material is much more explosive, both rhythmically and registrally. A-material is repeatedly interrupted and disrupted by B-material (mm. 12, 28, 39) until their conflict culminates at the climax of the piece (marked with a singular *ff* sign) in their confrontation as superimposed outer voices in the registral extremes (mm. 50.3–52, see Example 2 below), followed by the transformation of B-material into A-material to resolve the conflict. Although the main contribution of the present study will concern pitch organization, the character conflict will be highly important for the analysis, because of its important role in articulating the pertinent pitch configurations and because of the general significance of inter-parameter relationships. In particular, the 11-vs-1 distinction will provide vital new illumination of the ways and depth in which the pitch contents of the first outburst of B-material in m. 12—referred to here as the *B-impulse* and widely regarded as a crucial moment in Op. 11 No. 1—are reflected in the overall organization.¹⁸

In accordance with several previous analysts, I will refer to the three large sections as “exposition” (mm. 1–33), “development” (mm. 34–52), and “recapitulation” (mm. 53–64), even though these labels are only partially descriptive. On a smaller scale, a significant formal characteristic involves the manifestations of the character conflict: A-material makes repeated attempts, as it were, to express itself in accordance with traditional principles; however, these are recurrently disrupted by outbursts of B-material. Hence, I will conceive of the “exposition” as comprising a “disrupted period” (mm. 1–24) and “disrupted fugato” (mm. 25 *ff.*), whereas the “development” begins with a “disrupted sentence” (mm. 34–45). For the “period” and “sentence,” I will label formal units using William Caplin’s concepts and their abbreviations (“b. i.” and “c. i.”).¹⁹

All these designations are in concurrence with some of the previous literature and will, I hope, be largely self-explanatory.²⁰ However, as most analysts have—for obvious

18 According to Haimo (*Schoenberg’s Transformation*, 303), for example, m. 12 is “one of the most famous measures of music in all of Schoenberg’s output and, arguably, in the twentieth century as well. So much so that mm. 12–13 appear to be unlike anything we have heard so far in the composition [...]”

19 I refer to Caplin’s “basic idea” and “contrasting idea” with these abbreviations in order to avoid confusion with the Schoenbergian “idea” (William Caplin, *Classical Form* [New York: Oxford University Press, 1998]).

20 The periodic analysis of mm. 1–24 is similar to Ogdon’s; the subsequent passage has been called a “fugato,” e.g., by Brinkmann; and Arndt identifies a sentence in mm. 34–45 (Matthew Arndt, “Form – Function – Content,” *Music Theory Spectrum* 40/2: 208–26, <https://doi.org/10.1093/mts/mtyo24>). With regard to the notions of period and sentence, I refer primarily to aspects of phrase structure. There are no equivalents to cadences to complete the analogy with classical forms, but the ends of phrasal units in the “period” are indicated by *ritardandi*, whereas the more obscure “sentence” ending can be understood as involving a “written-out *ritardando*” (m. 45). In all cases, B-material is followed by a reversion to A-material. In the “period” and “sentence,” the original formal model is taken up and completed, but in the “fugato,” the disruptive B-material is followed by A-material similar to that at the very opening, supporting the perception of the “exposition” as a larger entity.

reasons—posited a small ternary form in mm. 1–11, the reading of the opening in terms of a period (previously suggested by David Ogdon) will require some explanation. This interpretation relies on the notion that after the “b. i.” (mm. 1–3), “c. i.” (mm. 4–8), and a variant of the former (mm. 9–11), there is the expectation of a counterpart to the “c. i.” to complete the periodic parallelism, but this is replaced by the B-impulse (see Example 1 below). Because some features in the left-hand part of the “c. i.”—the rising motion and somewhat quicker time values—to a degree foreshadow those in the B-impulse, the latter can be heard as a deformed “c. i.,” hinting at periodic parallelism but exceeding expectations due to excessive contrast. Most importantly, the periodic expectations are vindicated by the events to come. After the B-impulse, the music reverts toward A-material, recapturing the point at which the period was disrupted through a recomposed version of the “consequent’s b. i.” (mm. 17–18; for illustration, see Example 8 below). This time, an unmistakable counterpart to the “c. i.” does follow (mm. 19–24), suggesting a belated completion of the period.²¹

2. INITIAL ILLUSTRATION

I will proceed by first offering an initial illustration of the main dimensions of the present approach (section 2) that might serve as a “reader’s digest” demonstration of its descriptive power. Subsequently, I will supplement, substantiate, and deepen the pertinent viewpoints, focusing first on issues of harmony (section 3) and then on voice-leading, with excursions to motivic and narrative issues (section 4), before offering some closing notes on the diverse roles of interval class 1 in Op. 11 No. 1 (section 5).

2.1 The 11-vs-1 principle

For an initial illustration of the 11-vs-1 principle, consider the opening “b. i.,” a three-bar melodic statement above two block chords; see Example 1(a). Both *roi*-11 and *roi*-1 are introduced above the first bass note $G\flat_2$ (m. 2), but they are treated in contrasting ways. *Roi*-11 ($G\flat_2$ – F_3) appears between the two lowest voices of the first block chord (identified as *A-chord*) and moves in parallel motion to another *roi*-11 ($B\flat_2$ – A_3) in the next block chord.

21 Despite the descriptive power of the periodic analysis, it is not intended to entirely negate the ternary-form reading of mm. 1–11, as phrase functions involve considerable ambiguity and hesitation (see footnote 55 below). For yet another formal analysis of the opening events, Arndt (“Form – Function – Content,” Example 8) identifies the entire “exposition” as an enlarged sentence whose presentation and continuation correspond to the present “period” and “fugato,” respectively. Such a conception is not in sharp contradiction with the present one. Whereas the “period” is based on elements that exclude B-material—reflecting its fundamental contrast with A-material—Arndt’s sentential elements also exclude the present “c. i.” (mm. 4–8) and its later counterpart (mm. 19–24), which he identifies as “standstill/interpolation.”

Example 1: Schoenberg, Piano Piece Op. 11 No. 1, opening

Neither *roi-11* shows any tendency to resolve; their rhythmic stability and parallel motion signal to the listener that they assume a consonant function comparable to that of thirds and sixths in conventional tonality. *Roi-1*, by contrast, is rhythmically unstable. It is produced by the G_4 in the melody, which descends stepwise to F_4 (via the unaccented A_4) above the first block chord, doubling the *roi-11* in the “tenor”; hence, *roi-1* yields to *roi-11* in the manner of dissonance resolution. The “*b. i.*” thus offers a lucid demonstration of the *11-vs-1* principle, and, as will be discussed in detail below (section 3.1), the remaining parts of the “antecedent” corroborate the establishment of a harmonic environment in which the roles of vertical *roi-11*s and *roi-1*s suggest functional consonance and dissonance: *roi-11* appears as a basic harmonic building block with relative rhythmic stability and in primary articulatory positions, whereas *roi-1* occurs in relatively unstable or transient positions and is subjected to dissonance treatment.

Such circumstances do not, however, prevail universally in Op. 11 No. 1. As shown in Example 2, the climax (mm. 50.3–52) is saturated with vertical *roi-1*s, including parallel *roi-1*s for all melody notes except for the unaccented $F\flat_6$. There are no clear resolutions for each individual *roi-1*; instead, the *roi-1* tension is released only at the end of this passage, when the last two of the parallel *roi-1*s, C_5 – $D\flat_6$ and B_4 – C_6 (m. 52), move stepwise to B_4 – B_5 (m. 53), which can be heard as also resolving the bass-related B_1 – C_5 interval through registral transfer. The B_4 – B_5 interval heralds a return to the opening “*b. i.*” (“recapitulation”) and, at the same time, to a *roi-11*-dominated harmonic environment (see Examples 3[b] and 12[a] below). This suggests that the *11-vs-1* principle is manifest in two ways, relevant to two scales of organization. In addition to local consonance–dissonance relationships, as shown for the beginning of the work, a larger process leads from the

Example 2: Schoenberg, Op. 11 No. 1, climax

opening roi-11-dominated environment to the predominance of roi-1s and back, underlining the climax as the high point of tension. While such large-scale events have no clear analogy in conventional consonance–dissonance relationships, I will, for convenience, call all vertical roi-1s “dissonances,” identifying their climactic usage as a *group dissonance*. Below, I will treat the emergence and release of the climactic group dissonance as one of the main aspects of large-scale organization, paying special attention to ways in which it is foreshadowed in previous events.

The 11-vs-1 principle also helps to identify a striking harmonic connection between the B-impulse and the conclusion of Op. 11 No. 1. As shown in Example 3(a), the B-impulse—consisting of an anacrusic B2–C3–B2 neighboring figure and a surge upward from E♭2—is rich in both roi-11s and roi-1s. The four lowest notes of the upward surge (E♭–A–D–G♯, identified as *B-chord*) contain two roi-11s and form no roi-1s with previous notes within the B-impulse. The three highest notes (C5–E5–C♯6), by contrast, produce three roi-1s (B2–C5–C♯6 and E♭2–E♯5) as well as an extra roi-11 (D4–C♯6). All these features prove to have significant ramifications for subsequent events. Under the present principles, the four lowest notes stand unequivocally for consonant arpeggiation, tallying with the observation familiar from previous analyses (e.g., Brinkmann’s), that they eventually materialize as the concluding chord. However, the harmonic connection between the B-impulse and the conclusion goes far beyond that single chord. As shown in Example 3(b), the piece concludes with a passage—separated from previous events by rests—in which *both* framing chords (see boxes) are subsets of the B-impulse, featuring roi-11s and excluding roi-1s in accordance with the 11-vs-1 principle. All notes in the B-impulse are integrated into these framing chords, except for C and E, whose omission effects the elimination of roi-1s. By contrast, all the B-impulse’s roi-11s are present in them, including the “extra” D–C♯, with their mutual registral order preserved (from bottom up: E♭–D, A–G♯, D–C♯). While

Example 3: The B-impulse and the concluding passage

The image contains two musical examples, (a) and (b), from Schoenberg's Piano Piece Op. 11 No. 1. Example (a) is titled "B-impulse" and shows measures 12-14. It features a treble clef with a *ppp* dynamic. The bass line starts with a B-chord (B, D, F#) and moves to E♭. The treble line has a C#7 chord (C#, E, G, B) and moves to D. Example (b) is titled "Concluding passage" and shows measures 59-62. It features a bass clef with a *dim.* dynamic. The bass line starts with a B chord (B, D, F#) and moves through G# and E♭. The treble line starts with a C#7 chord (C#, E, G, B) and moves through D and A. There are also markings for *pp* and *a'* (perm.) in the treble line.

the concluding passage is clearly A-material with respect to character, the 11-vs-1 principle helps to reveal the depth to which it is harmonically dominated by the stabilizable contents of the B-impulse, thus pointing to a crucial aspect of inter-parameter dialectic.

2.2 The proximity principle

Before illustrating the proximity principle, it should be noted that all readings of horizontal-vertical relationships in this study employ articulatory importance as a key criterion of structural weight. Both the primary harmonies and the primary notes within linear progressions will normally be those featured as the starting points or goals of pertinent articulatory units.²² Accordingly, I will regard two harmonies as having primary referential status—referred to here as the *A-chord* (G♭–F–B) and *B-chord* (E♭–A–D–G#), as in Examples 1 and 3—whose large-scale articulatory importance is readily evident in their positions as the first and last block chords. On the smaller scale, the A-chord and B-chord are featured at the opening above the first bass notes of A-material and B-material (G♭2 in m. 2, E♭2 in m. 12), respectively (but, as is evident from Example 3[c], these links break

²² In principle, this criterion might be overridden by meter, for example, but the present analysis includes few such instances. (One exception is evident in Example 3[b], where I read the G#3 in m. 62 as structurally superior to the preceding metrically weak A3.)

toward the end, which combines A-material with the B-chord).²³ Supporting their special articulatory roles and creating potential for parallelism, the two referential chords exhibit noteworthy similarities in construction. In terms of registrally ordered sets, the B-chord is a transposed superset of the A-chord. Both chords feature *roi-5* (“fourth”) between the outer voices and *roi-11s* between the outer and inner voices.²⁴ Moreover, both chords (representing set classes [016] and [0167]) lack interval classes 3 and 4, which sets them apart from most other chords, in which “thirds” and “sixths” abound. (The special articulatory role of these “thirdless” referential harmonies might be compared to that of 8/5 chords in Renaissance music, in which triads form the majority of consonant chords.)

Let us now consider the surface voice-leading of the opening melody and its relationships with the primary harmonies in light of the proximity principle (deeper levels of voice-leading will be addressed in section 4). Testifying to the significance of stepwise voice-leading, the melody consists of two almost entirely stepwise strands starting from the first two notes, B₄ and G₄, as shown with upward and downward stems in Example 1(b).²⁵ The sole exception, the C₄–A₃ gap in m. 10, proves the rule, so to speak, since it is immediately filled in by B₃, contributing to its satisfactory effect at the end of the melody. As shown with beams in Example 1(b), the two strands embody the frameworks B₄–F₄ and G₄–D₄–A₃; these are identified on the basis of phrasal articulation, as they consist of notes at the beginnings of phrasal units. The most significant harmonic implications of larger intervals become evident upon consideration of how these frameworks relate with the two referential harmonies. The higher B–F framework, connecting the incipits of the “antecedent” and “consequent,” suggests the horizontalization of the opening outer-voice interval, which is present as a verticality in the A-chord. The lower G₄–D₄–A₃ framework, by contrast, does not seem to relate to the opening harmony, but horizontalizes, in anticipation (and in actual registers), the upper voices of the B-chord, which bursts forth at its endpoint.

These observations suggest that the proximity principle is highly productive for the analysis of horizontal–vertical relationships, but these relationships are not based on a

23 The relationship between the two referential chords suggests a comparison with Schoenberg’s discussion of two or more rival tonics in “fluctuating tonality” (*Theory of Harmony*, 153 and 383–84).

24 Given the common features between the A-chord and B-chord, it is hard to see what Haimo means by describing the relevant “016 trichords” as follows: “The pitch-class content, the *registral distribution*, and the texture are so different as to raise serious questions about any claim of relatedness.” (Haimo, *Schoenberg’s Transformation*, 310; my emphasis. Haimo’s discussion is also marred by his repeated reference to “the trichord in accompaniment in m. 2” as “B₄ F B” [*ibid.*, 309, my emphasis].)

25 To my knowledge, these two stepwise strands (let alone their harmonic implications) have not been identified in previous literature, but they match Haimo’s (*Schoenberg’s Transformation*, 20) category of “indeterminate scales”: stepwise motions that resemble a scale, but which are not answerable to any specific diatonic collection.” Boss’s experimental Schenkerian sketch (*Schoenberg’s Atonal Music*, 14) does show the B₄–A₄–G₄ line of the upper strand, but then identifies the subsequent F₄ as a neighbor returning to a non-existent G₄ (shown with question marks).

simple prolongation of a single harmony. Instead, the opening melody appears as a *combination* of two superimposed linear progressions governed by the two referential harmonies, involving a dramatic shift of emphasis from the A-chord toward the B-chord. While the initial predominance of the A-chord is evident in the higher and more prominent B₄–F₄ framework, elements of the B-chord smolder, so to speak, in the lower G₄–D₄–A₃ framework—reinforced by the anticipatory G₄ at the end of the higher strand (m. 10)—before flaring up in the B-impulse. The E₂ (m. 11) makes a dramatic impact owing to the textural contrast and low register (and its being the first E₂ in the piece),²⁶ but the choice of this bass note to support G₄ and D₄ is readily understandable on the basis of the common features between the two referential chords. Although foreign to the A-chord, these notes are offered a “home” by the B-chord, whose bass E₂ supports them with intervals that reproduce those in the A-chord (roi-11, roi-5).

While the primary harmonic implications of the two melodic strands concern their relationships with the A-chord and B-chord, they also bear a noteworthy relationship to the “Tristan” chord featured in the low and middle registers in the “c. i.” (mm. 4–8).²⁷ Superimposing G₂–D₃ on F₃–B₃, the “Tristan” chord provides a harmonic summary of the B₄–F₄ and G₄–D₄ progressions, with D₃ and F₃ (the first two notes in a repeated “tenor” figure) suggesting registrally displaced anticipations of F₄ and D₄ (the first two notes in the “consequent”); see the dotted slurs in Example 1(b). The salient G₂–D₃ tritone is noteworthy as the first confirmation of the harmonic implications of the G₄–D₄ framework, another feature that supports the association between the “c. i.” and the B-impulse. (Hearing the D₃ in m. 4 as already expressing the goal of that framework is subtly supported by its metric position, as notes on third beats regularly participate in the lower strand; cf. Example 10 below.)

The analysis of the opening melody as a combination of two strands governed by the two referential chords relates to a more general tendency in Op. 11 No. 1, as elements of the A-chord and B-chord are recurrently pitted against each other in superimposition, with changes in emphasis and in articulatory and registral circumstances suggesting a dramatized rivalry between the two. As evident from Example 3, the B–F₄ framework, representing the A-chord, remains present alongside the occurrences of the B-chord, but with drastic changes in emphasis. As shown in Example 3(a), B₂ and F₄ form the temporal and

26 This was already observed by Webern. See Anton Webern, *The Path to New Music*, ed. Willi Reich, trans. Leo Black (London: Universal Edition, 1975 [based on a lecture series in 1932]), 54.

27 Connections between Op. 11 No. 1 and Wagner’s *Tristan*, including the indicated “Tristan” chord, have been identified in Thomas Christensen, “Schoenberg’s Opus 11, No. 1: A Parody of Pitch Cells from *Tristan*,” *Journal of the Arnold Schoenberg Institute* 10/1 (June 1987), 38–44 and also discussed in Richard Kurth, “Multiple Modes of Continuity and Coherence in Schoenberg’s Piano Piece, Op. 11, No. 1,” in Jack Boss and Bruce Quaglia (eds.), *Musical Currents from the Left Coast* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), 282–98.

registral framework for the $E\flat_2$ bass of the first B-chord, which is conspicuously introduced but not yet predominant. The registral positions of the two bass notes, $G\flat/F\sharp$ and $E\flat$, play a particularly prominent role in dramatizing the harmonic rivalry: the $E\flat_2$, the lowest note so far, challenges the opening $G\flat_2$ (m. 2, confirmed in m. 10) but is quickly overridden by the downward surge to $F\sharp_1$ (m. 13), which vigorously reasserts the opening bass in a lower octave. In the concluding passage (Example 3[b]), in contrast, the B– $F\sharp$ framework is relegated to an inner voice in an imitational dialogue with $G\sharp$ – $E\flat$, a closing juxtaposition of both referential chords’ outer-voice roi-5s leading to the final establishment of the B-chord above a yet lower $E\flat_1$ (the lowest note overall).²⁸ If we take the A-chord and B-chord as representing an initial and final state in a musical narrative, the B-impulse suggests a premonitory flash of the final state within the context of the initial state. The conclusion realizes that final state, with a last reminder of the initial state in a fading inner voice.

The horizontalizations of the A-chord and B-chord are linked to a noteworthy aspect of motivic organization, labeled *a* and *b* in Example 3(b) and elsewhere. These symbols denote descending horizontalizations of the two referential chords’ outer-voice roi-5s in which the goal note is approached with one or more half steps; the minimal forms of *a* and *b* are thus B–G– $F\sharp$ and $G\sharp$ –E– $E\flat$ (*a*’ is a variant of *a* to be discussed later). Such shapes are obviously connected to the opening B– $G\sharp$ –G trichord; as shown in Example 1(b), the first suggestion of *a* takes place when the regular quarter-note rhythm of this trichord extends to the bass $G\flat$. Whereas the motivic significance of the opening trichord has been amply discussed, my contribution to motivic analysis will concern the emergence of *a* as its extension, the somewhat analogous emergence of *b*, and their roles in dramatizing the harmonic rivalry. The last phase in the motivic drama, shown in Example 3(b), involves the two hands’ dialogue between *a* and *b*, followed by a final *b* transferring from the right to left hand, motivically sealing the victory of the B-chord.

2.3 Aspects of large-scale organization

The above observations suggest that the present principles shed new light not only on local features of harmony and voice-leading but also on two significant large-scale aspects of harmonic organization. One is the emergence and release of the group dissonance, and the other is the transition and rivalry between the two referential harmonies, an important manifestation of which involves their superimposed horizontalizations. My analysis of large-scale organization will be based on these two harmonic phenomena and their

²⁸ The relationship between the imitational technique and the roi-5 frameworks is rather complex. The left hand’s $G\sharp_2$ – F_2 – E_2 – G_2 – $E\flat_2$ (mm. 60.3–61) imitates the right hand’s $C\sharp_4$ – $B\flat_3$ – A_3 – C_4 – $A\flat_3$ (mm. 58.3–60.1), in which $C\sharp$ belongs to the top voice and does not participate in the B_3 – $F\sharp_3$ inner-voice progression—whose framing notes notably do not participate in the imitation.

relationships with each other and with the character conflict. Fundamental to these relationships is the observation that the group dissonance cooperates with the character conflict in creating a trajectory of increasing and decreasing tension, but the transition from the A-chord to the B-chord is unidirectional, involving an initial and final state. More specifically, the climax, while being marked as the apex of tension by the character conflict and group dissonance, already asserts, *fortissimo*, the B-chord’s outer voices in the registral extremes (E \flat 1 and G \sharp 6; see Example 2): whereas the left hand’s B-material (m. 50.3) reproduces, one octave lower, the original surge from E \flat (m. 12),²⁹ the right hand’s A-material is modified (or distorted) so as to begin with *b* (G \sharp 6–E6–E \flat 6), motivically highlighting the predominance of the B-chord. The establishment of the “final state’s” main elements thus involves maximal tension, and it is only the remaining events that remove that tension by resolving the character conflict and group dissonance—an observation with vital expressive and narrative implications.

2.4 Non-prolongational features

The above observations also motivate a brief return to the notion of prolongation in order to point out features that resist this type of description. Although both the A-chord and B-chord govern linear frameworks in ways that suggest prolongation or embellishment, their mutual relationships cannot be described in terms of prolongation. In the “background,” neither prolongs the other;³⁰ in the foreground, their elements are combined in superimposition, showing dramatic shifts in emphasis but no prolongational subordination.³¹ Moreover, there are prominent additional elements that do not participate in the linearizations of the two referential chords, but instead suggest *enlargements* of them in ways that fit the general harmonic environment. A case in point is the high C \sharp that is featured as the apex tone in both the B-impulse and the concluding passage, strongly reinforcing their connection. As illustrated in Example 3, the C \sharp suggests enlargement of the B-chord by another *roi*-11 (D–C \sharp), testifying to the generative significance of this interval for harmony. As no stepwise interval connects it to the B-chord, the C \sharp must be understood as part of the harmony (left hanging at the end). In terms of articulation, however, the C \sharp is not fully integrated into the B-chord; it might perhaps be described as an “associate member.”

29 The upward surge in m. 50 reproduces that in m. 12 except for the G \sharp 3 which replaces G \sharp 4, enhancing the singularity of the high G \sharp 6.

30 The characteristic descending-3 (“minor third”) relationship between the A-chord and B-chord cannot be described as either arpeggiation or non-harmonic embellishment.

31 Since the G \sharp 4s (mm. 1 and 9) and F \sharp 4 (m. 9) are separated by a whole tone, they might “theoretically” represent some kind of non-harmonic embellishment figure. However, this hardly seems intuitive from a gestural perspective and, as will be discussed in section 4.1, these notes form a voice-exchange pattern with F \sharp 2–G \sharp 2–F \sharp 2 in the bass, which supports the presence of both notes in harmony (Example 7[a]).

2.5 “Idea”

In 1946, Schoenberg defined “idea” as follows:

I am forced to define the term idea in the following manner: 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 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.³²

By “idea,” Schoenberg thus refers to a dialectical process in which a problem concerning unclear relationships between musical elements is introduced, elaborated, and finally solved by clarifying these relationships, first increasing and then removing unrest (“restoring balance”). While Schoenberg illustrates this notion with relationships specific to major–minor tonality, its central significance in his conception of musical organization suggests that “ideas” are also manifest in his non-tonal works, prompting several recent analysts to approach this issue in works such as Op. 11 No. 1 in various ways.³³ Generally speaking, both non-tonal pitch relationships and non-pitch parameters can be regarded as possible sources of problems relevant to “idea” in this repertoire.³⁴ In Op. 11 No. 1, the compositional significance of problem-solving dialectics is, I would suggest, most conspicuously evident in the character conflict: the relationship between A-material and B-material poses a problem that is elaborated (producing unrest) and eventually solved (“restoring balance”) in ways described by Brinkmann. Even though Brinkmann did not invoke the notion of “idea,” the treatment of the character conflict suggests its interpretation as a prominent facet of this work’s “idea.”

32 Schoenberg, *Style and Idea*, 122–23. Schoenberg discussed “idea” in various sources, most extensively in Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, eds. and trans. Patricia Carpenter and Severine Neff (New York: Columbia University Press, 1995). For valuable discussion of the relevant sources, their implications, and later developments and adaptations of Schoenberg’s notion, see Jack Boss, *Schoenberg’s Twelve-Tone Music: Symmetry and the Musical Idea* (Cambridge: Cambridge University Press, 2014, <https://doi.org/10.1017/CBO9781107110786.001>), chapter 1.

33 Analyses of Op. 11 No. 1 that approach its “idea” from various perspectives—greatly differing both from one another and from the present analysis—are to be found in Boss, “Musical Idea” and *Schoenberg’s Atonal Music*; Bruce Quaglia, “Tonal Space and the ‘Tonal Problem’ in Schoenberg’s Op. 11, No. 1,” in Jack Boss and Bruce Quaglia (eds.), *Musical Currents from the Left Coast* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), 236–55; and Arndt, “Form – Function – Content.”

34 That Schoenberg’s “idea” can involve non-pitch elements is evident, for example, in the following passage from *The Musical Idea* (103): “Through the connection of tones of different pitch, duration, and stress (intensity??), an unrest comes into being: a state of rest is placed in question through a contrast. From this unrest a motion proceeds, which after the attainment of a climax will again lead to a state of rest or to a new (new kind of) consolidation that is equivalent to a state of rest.”

My analysis of “idea” will be based on a complex of three interrelated problems tying in with the three aspects of large-scale organization identified above (section 2.3). Apart from the problem involving the contrasting characters, there are two pitch-based problems arising at the outburst of the B-impulse (concurrent with the character conflict) that the present register-sensitive principles help to describe.³⁵ These two problems center on the elements in the B-impulse that exceed previous registral limits: the low E \flat ₂ and the high C₅, E₅, and C \sharp ₆. The problem with E \flat concerns its relationships with previous elements and is reflected in the large-scale rivalry between G \flat /F \sharp and E \flat , the basses of the two referential chords. In addition, this problem also involves the more sophisticated question about the voice-leading origin of E \flat . The E \flat ₂—the lowest note so far and the first E \flat in the piece—comes out of nowhere, as it were, but under the present principles it will be possible to describe an intricate process that suggests an attempt to retrospectively clarify its voice-leading relationship to preceding events. For a better understanding of this question, however, I will address it only after a thorough voice-leading analysis of those preceding events (section 4.2).

The problem with C₅, E₅, and C \sharp ₆ relates to the roi-1s they produce with previous notes in the B-impulse, and its treatment can be outlined here as an initial illustration of the present perspectives on “idea.” (As will become evident below, this problem is not independent of the problem with E \flat —the roi-1s that follow the E \flat can be heard as reflecting and amplifying the unrest caused by it—but I will disregard this connection in this initial discussion.) As noted above, larger horizontal roi-1s are functionally ambiguous: under the present principles, they can be perceived either as enlarged voice-leading intervals (half steps) or as arpeggiated dissonances. While contextual features might resolve this ambiguity in one way or the other, the B-impulse is followed by events suggesting that the ambiguity of its roi-1s has extended compositional significance as a problem for which the music attempts competing solutions, creating unrest that eventually culminates in the climactic group dissonance.

The first indication of Schoenberg’s sensitivity to this problem is illustrated in Example 4(a)–(b): after the B-impulse, he quickly returns to E \flat ₂ and B₂, from which the larger roi-1s have sprung, and then realizes the same roi-1s as simple half steps in a left-hand voice-leading framework (E \flat ₂–E \flat ₂ and B₂–C₃–C \sharp ₃, mm. 13–14), as if to spell out the read-

35 Locating the problems as late as m. 12 may seem to be at odds with Schoenberg’s statement that the pertinent “unrest is expressed almost always already in the motive, but certainly in the gestalt” (*The Musical Idea*, 107). However, this interpretation is supported by the prominence of contrast at that point and by its analytical fruitfulness—the more important consideration for the present concerns. Moreover, as will be evident below (section 4.3, Example 10), the problem with E \flat has, from a motivic perspective, its roots in the registral discrepancy within the opening *a* figure. Boss’s analysis of “idea” in Op. 11 No. 1 in *Schoenberg’s Atonal Music* also locates the main conflict in m. 12, despite relying on motivic considerations quite different from the present concerns.

Example 4: The B-impulse and the subsequent treatment of its roi-1s

(a) B-impulse

12 *PPP* *sf*

B-chord

(b) Implied voice-leading? **Compositional confirmation!**

B(CB) — C₃ — C₃[#] B(C₃ B) — C₃ — C₃[#]

E₃ — E₃ E₃ — E₃

(c) "fugato" climax flashbacks in backward order

(cf. bar 42) cf. "fugato" climax cf. bars 12–13

29 *f* 48 *f* 50 *accel.*

reference to B-chord in box

climax "recapitulation"

G₃[#] E₃ E₃ D D₃ — C₃ — B₃

G₃ E₃ E₃ D C₃ — B₃ — B₃

ff *pp* *p* *cresc.*

gebunden 11 0

NB: Circled chord verticalizes B-impulse's three highest notes

left-hand part of the original "c. i." modified so as to alleviate its contrast with B-material

ing of those roi-1s as functionally equivalent to half steps (Example 4[b]). The perceptual link between left-hand half steps and the larger roi-1s is further supported by the relationships between the 32nd-note figures around the upward surge: the anacrusic B₂–C₃–B₂ figure can already be heard as subtly preparing for B₂–C₅, whereas its widening into B₂–C₃[#]–B₂ (m. 13) seems to reflect the extension of the upward surge up to C₆. (At

the same time, two of the B-impulse’s roi-11s are reproduced in the $E\flat_3$ – D_4 – $C\sharp_5$ right-hand figure, supporting the immediate differentiation of its roi-1s and roi-11s.)

While these events suggest solving the problem with B-impulse’s roi-1s by relating them to equivalent half steps, this solution is by no means conclusive. As illustrated in Example 4(c), the same roi-1s reappear as dissonant verticalities at prominent *forte* moments that refer back to the original events through association and recomposition, thus spelling out the opposite interpretation and creating tension that culminates in the climactic group dissonance. In the “disrupted fugato,” the new outburst of B-material leads to a local climax (m. 29) that reproduces the pitch-class contents of the B-impulse, securing their association by preserving the original registral ordering of the notes of the B-chord ($E\flat$ – A – D – $G\sharp$). Owing to registral and temporal rearrangements, however, two of B-impulse’s roi-1s, B – C and $E\flat$ – E , appear as salient verticalities. Shortly before the overall climax, the chain of associations continues in a flashback of the “fugato” climax (mm. 48.3–49.2), which is followed by a recomposition of the 32nd-note figures heard around the B-impulse’s upward surge (mm. 49.3–50.2; cf. mm. 12–13). Whereas the original figures supported the interpretation of B-impulse’s roi-1s as representing horizontal half steps (Example 4[b]), B – C and $C/B\sharp$ – $C\sharp$ are now verticalized, suggesting an ostentatious negation of the first interpretation. Notably, these are the first single-attack simple semitones in the piece, which gives them a pungent sonorous quality that underlines the acute tension just before the climactic group dissonance.³⁶

The climactic group of vertical roi-1s contains not only those familiar from the B-impulse ($E\flat$ – $E\flat$, B – C , C – $D\flat$), but also two “new” ones (G_5 – $G\sharp_6$ and D_5 – $E\flat_6$, highlighting the framing notes of *b*; see the exclamation marks in Example 4[c]); however, several features support hearing the climax as primarily concerned with the problem that originates in the B-impulse. First, its two bass-related roi-1s ($E\flat_1$ – E_6 and B_1 – C_5) reproduce those formed against the low $E\flat$ and B in the B-impulse. Second, and more strikingly, an exact verticalization of the B-impulse’s three highest notes materializes at the point that leads to the resolution of the group dissonance (C_5 – E_5 – $D\flat_6$, m. 52), as if to reveal the origin of the roi-1 tension just before its release. Third, in addition to all the vertical roi-1s, the climactic melody also contains three horizontal half steps, E_6 – $E\flat_6$ and $D\flat_6$ – C_6 – B_5 : precisely the roi-1s of the B-impulse. Each vertical statement of these roi-1s is followed by a horizontal statement, suggesting that the climax not only forms the culmination for the problem with the two interpretational alternatives but also points to its solution by combining the two. For the $D\flat_6$ – C_6 – B_5 motion, this solution coincides with the release

36 The only other single-attack semitone in Op. 11 No. 1 occurs in m. 56 between F_4 and $G\flat$, but this semitone is prepared by the previous F_4 s and resolves regularly to $E\flat_4$ (see Example 12 below).

of the group dissonance. And although the E6–E♭6 motion (m. 51) does not yet yield local stability, it points to several ensuing E–E♭ motions that participate in the stabilization of E♭—the last of them concluding the piece (cf. Example 12 below).

These observations about “idea” supplement the discussion of the ways in which the B-impulse’s roi-11s and roi-1s are reflected in the large-scale organization. Although only the roi-11s are stabilized in the framing chords of the concluding passage (Example 3[b]), the roi-1s are by no means without significance for large-scale events, as the problem they pose creates tension that ties in with the emergence of the group dissonance, calling for solution before the attainment of the final stability.

Schoenberg’s ingenious solution to the character conflict—another source of large-scale tension—has been perceptively described by Brinkmann (“Lösung der Peripetie”)³⁷ and is also illustrated in Example 4(c). While Brinkmann did not analyze the opening in terms of a period, this solution can be best understood if we recall that from the periodic perspective, the B-impulse suggests a deformed counterpart to the original “c. i.” The problem, arising from their excessive contrast, is solved by demonstrating their similarity by setting their characteristic parts in direct succession and alleviating the contrast through a rhythmic modification of the “c. i.” The climax’s 32nd-note surges are followed in the “recapitulation” by a sixteenth-note variant of the left-hand part of the “c. i.” and then by ascending thirds with eighth and quarter notes, which recall its right-hand part. The varied “c. i.” thus provides the missing link between B-material and A-material, enabling the former to transform into the latter in a gradual slowing-down process.

3. HARMONY: FURTHER MANIFESTATIONS OF THE 11-VS-1 PRINCIPLE

3.1 The opening

Let us now return to the opening stretch of A-material for a more comprehensive survey of the roles played by vertical roi-11s and roi-1s; see the brackets in Example 1(a) above. As discussed above, the opening “b. i.”—with two parallel roi-11s in the block chords and with the roi-1–roi-11 resolution in the melody (G4–F4)—suggests a lucid demonstration of the 11-vs-1 principle. The ensuing “c. i.” (mm. 4–8) contains three bass-related roi-11s, the most prominent of which appears repeatedly between G♯2 and G4. In contrast to the rhythmic instability of the first G4 above the G♭2 (m. 2), this outer-voice roi-11 seems to enable an extended lingering on this prominent top-voice note, strongly supporting the establishment of roi-11 as a functional consonance. The two new bass notes in mm. 7–8, D♭3 and

37 Brinkmann, *Arnold Schönberg: Drei Klavierstücke*, 90–91.

C₃, in turn, suggest consonant roi-11 support to C₄ and B₃, the framing notes in a repeated “alto” figure.³⁸ In summary, all bass notes in the “antecedent” support roi-11s in upper voices that are either rhythmically stable (i.e., with neither voice moving against the other) or occupy primary articulatory positions. Neither criterion is met by any of the roi-1s, which include, apart from G_{b2}–G₄ in m. 2, those produced by the transient D₃ and F_# in the repeated “tenor” figure in mm. 4–8. This comparison thus clearly supports the notion that the roles of these intervals are differentiated in accordance with the 11-vs-1 principle.

While the pertinence of the 11-vs-1 principle in Op. 11 No. 1 is not limited to bass-related intervals, the consistent use of roi-11s above the “antecedent’s” bass notes promotes the interval’s clear establishment as a functional consonance and suggests that the traditional bass-oriented perception of harmony still had considerable significance for Schoenberg.³⁹ From this perspective, the “consequent’s b. i.” (mm. 9–11) shows a temporary change in harmonic environment, as roi-11s are replaced with roi-10s (featuring as parts of whole-tone chords), suggesting some extent of functional equivalence between the intervals traditionally categorized as the major and minor seventh. Significantly, both roi-10s (G_{b2}–E₃ and G₂–F₃) are maximally proximate to the initial roi-11 (G_{b2}–F₃)—i.e., obtainable through one half-step motion—corroborating its referential position as a starting point. Both roi-11 and roi-1 appear only once within this unit, with articulatory positions in keeping with the 11-vs-1 principle. The roi-1 between A_{b3} and A₃ (m. 10) can be heard as underlining the subordinate articulatory and linear position of the A₃ (the only gap in the lower strand). The roi-11 between B₂ and B_{b3} (m. 11) concludes the opening melody by bringing the harmonic color somewhat closer to the original, even though this roi-11 is not bass-related like the previous ones.

These observations yield consistent support for the 11-vs-1 principle, but a noteworthy detail of dissonance treatment remains to be discussed. Whereas most roi-1s are followed by steps that can be understood as effecting resolution,⁴⁰ the F_{#3} in the “tenor” figure in

38 To be sure, one might question the stability of the D_{b3}–C₄ interval (m. 7), since the C₄ moves to B_{b3} above D_{b2}, as if to mimic a conventional 7–6 resolution. At this point, however, the previous consistent appearance of bass-related roi-11s in stable roles is, I would suggest, already sufficient to establish the interval’s consonant status to the extent that removes any expectation of a conventional resolution, making the B_b more likely to be heard as a neighbor between the two roi-11s. This hearing is also supported by the association with the previous occurrences of the C₄–B_{b3}–B_{b3} figure (mm. 4 and 5), which is readily perceptible as a neighboring figure owing to the straightforward rhythmic circumstances.

39 Although the present analysis focuses on roi-11s and roi-1s, a bass-oriented approach might also be fruitful for a more comprehensive analysis of the harmonic vocabulary. For example, m. 3 introduces two chord forms that can be identified as 11/7/3 and 11/6/3 in terms of bass-related intervals. The latter reappears prominently above the ensuing G_{#2}, and the D_{#3} and C₃ in mm. 7–8 support incomplete forms of these chords, 11/3 and 11/7. Later, the 11/7/3 chord (or “mM7”) will be featured in the “fugato” (see Example 5).

40 Whether the A₃ is just an incomplete neighbor to B₃, suspended from m. 3, or a passing note coming from G_{#2}, is by no means self-evident, but a definite answer to this question is less relevant for the analysis.

the “c. i.” (mm. 4, 6, 8) is surrounded by leaps, calling for a more complex explanation. Despite their transient surface character, the leaps point, under the proximity principle, to a more extended presence of F \sharp 3 in the harmony (as reflected in the perception of a “Tristan” chord in the lower registers). In explaining this dissonance treatment, we should recall that the F \sharp 3 suggests an anticipation of the melody’s F \sharp 4 (m. 9; see the dotted slurs in Example 1[b]): the momentary *roi-1* between G4 and F \sharp 3 resolves when the former descends to the F \sharp 4 that the latter anticipates.

Studying the larger context will offer further illumination of the sophisticated treatment of the G–F \sharp relationship. As indicated with circles in Example 1(a), the upper-voice F \sharp s participate in a pattern of registral transfers that originate from and lead back to the G \flat 2, whose parallelistic occurrences as the first bass note in the “antecedent” and “consequent” establish it as the governing bass.⁴¹ After the blatant introduction of the G4–G \flat 2 dissonance, G4 is offered consonant *roi-11* support by G \sharp 2, but the inner-voice F \sharp 3 functions as a gentle reminder, so to speak, of its underlying dissonance with the governing bass.

The treatment of the G–F \sharp /G \flat relationship also has significant motivic implications. As pointed out above, the first four quarter notes suggest the formation of the *a* figure, but registral discrepancy and momentary simultaneity make the G–G \flat relationship unclear, causing what might be called a motivic “small-scale problem.” This problem is quickly solved through the reintroduction of G4 (m. 4) and the registral transfer of G \flat /F \sharp , which enable the simple G4–F \sharp 4 half step to materialize.⁴² While this small-scale problem is not directly involved in the large-scale problems on which I base my analysis of “idea,” it adumbrates the larger problem with E \flat in ways that will become evident below (sections 4.2 and 4.3).

3.2 The “fugato”

As discussed above (Example 4), the local *forte* climax of the “disrupted fugato,” with its dissonant *roi-1s* (B3–C5 and E \flat 4–E5), plays a prominent role in the associational chain that leads from the B-impulse to the climactic group dissonance. Example 5(b) provides an annotated score of the “fugato,” showing how these *roi-1s* emerge. In each hand’s part, starting from the “subject” and “answer,” the harmonic environment is characterized by the pervasive use of *roi-11s*, which are mostly supplemented with “augmented triads” (shown with □□□ signs in Example 5) to form “mM7” chords (a typical sonority in early

41 Given the parallelistic occurrences of G \flat 2 at the opening of the “antecedent” and the “consequent,” I find counter-intuitive Lerdahl’s reading of them as subordinate to the intervening G \sharp ; Fred Lerdahl, *Tonal Pitch Space* (Oxford: Oxford University Press, 2001), Figure 8.7.

42 A subtle detail in the transformation of the G–G \flat /F \sharp relationship is that G4 and F \sharp 3 are no longer simultaneous in the last repetition of the figures of the “c. i.” (m. 8).

Example 5: The "disrupted fugato"

= "augmented triad"
 = motivic statement

(a) reference to B-chord
 A-material B-material local climax
 (b) 25 *b* *p* *b?* C B E E_b
 elements of A-chord
 return to A-material (and to the opening rhythmic character) punctuating octave-unison gesture "development"
 (a) *f* 1 3 11 *al*
 (b) 30 33
 (c) 25 28 29 32 33

non-tonal Schoenberg, introduced in m. 3 in this piece).⁴³ As shown with beams, “augmented triads” also generate larger frameworks ($F\flat_2-C_2-A\flat_1$, $E\flat_3-G_3-B_4$, and $C_5-E_5-G\sharp_5$), with elements brought out by registral and other kinds of emphasis and consistently supported by parallel *roi-1*s.

Although the parts in each hand feature *roi-1*s, there is latent *roi-1* tension between the parts that is actualized at the local climax. The “augmented triads” in the “subject” and “answer” (mm. 25–26) suggest three latent *roi-1* relationships ($E\flat-F\flat/E\flat$, $G-A\flat/G\sharp$, $B/C\flat-C\flat$) whose effects are mild or negligible because of non-simultaneous presentation.⁴⁴ However, the larger reproduction of the same “augmented triads” (see beams) leads to the local climax (m. 29), in which two of these *roi-1*s— $E\flat_4-E\flat_5$ and B_3-C_5 , those familiar from the B-impulse—materialize as verticalities. (The omission of the third *roi-1*, $G-G\sharp$, helps to set off its singular *ff* appearance at the overall climax [m. 50.3], especially because this is preceded by a flashback of the “fugato” climax [mm. 48.3–49.2]; see Example 4[c] above.)

Example 5(a) sketches some relevant aspects of voice-leading, showing how C_5 and E_5 relegate D_5 to a passing tone, preventing the formation of the B-chord. Toward the end of the passage, voice-leading is obscured by registral transfers, but of the notes in the highest *roi-1*-producing augmented triad, $G\sharp_5$ and E_5 can be heard as retreating to the lowest register ($A\flat_1$, E_2), whereas C_5 resolves to the $B/C\flat$ in the rhetorically powerful octave-uni-son gesture that punctuates the closure of the “exposition.” Example 5(c) provides a more reduced sketch of the relevant octave transfers.

The “fugato” also represents an important stage in the motivic drama. While the “subject” and “answer” start with “augmented triads,” metrically they highlight *a* ($C\flat_3-G_2-F\sharp_2$) and *b* ($A\flat_4-F\flat_4-E\flat_4$)—the first clear juxtaposition of these figures. However, both figures are embedded within “mM7” units and are thus not supported by the two referential harmonies with which they primarily associate. At the “fugato” climax, in connection with the reference to the B-chord, the emphatic $G\sharp_5$ and E_5 suggest a “failed” attempt to assert *b*, as they are followed by the lower $E\flat_4$ that produces the dissonant *roi-1*. This “failure” will eventually be corrected by the triumphant $G\sharp_6-E_6-E\flat_6$ in the overall climax, but at this point the motivic rivalry is decided in favor of *a*, asserted by the punctuating

43 In the “fugato,” the contrast between A-material and B-material is somewhat alleviated both rhythmically—as sixteenth notes substitute for 32nds in the B-material—and because of the shared presence of “augmented triads.” However, the $C_2-F_2-B_2-E\flat_3-G_3-B_3$ surge in m. 28 is an exact transposition of a fragment of the B-impulse and thus clearly represents B-material.

44 The most salient *roi-1* between the “subject” and “answer” is $C\flat_3-C\flat_5$, which exactly reproduces one (B_2-C_5) from the B-impulse. The others involve unaccented notes (G_2 and $E\flat_4$) that lead to accented notes by a half step, suggesting merely local significance.

Example 6: The rising-13 gesture

octave-unison gesture (m. 33).⁴⁵ Through its articulatory significance, low register, and rhetorical power, this gesture re-establishes F \sharp as the governing bass in combination with B/C \flat . As the subsequent “development” starts by featuring F5 in the treble, the temporary victory of *a* is coupled with the prominent restoration of all elements of the A-chord at this crucial formal juncture.

3.3 The rising-13 gesture

The “development” is largely permeated by repetitions of a rising two-note gesture in which a short unaccented note leads to a longer accented note. The distance between the two notes is 13 semitones, with two exceptions: as shown with horizontal brackets in Example 6, the “b. i.” and its varied repetition—which form the “presentation” in the “disrupted sentence”—close with 11s. Like larger horizontal roi-1s in general, the rising 13s are functionally ambiguous, perceptible as enlarged half steps or as arpeggiated parallel dissonances.⁴⁶ In terms of the latter perception, the 11s at unit endings are another manifestation of the 11-vs-1 principle, suggesting a temporary release of tension. (As shown with vertical brackets, roi-11s are also largely favored in local harmonies between the longer bass notes and upper voices.)

On a larger scale, the rising 13s and their functional ambiguity play an important role in preparing for the climactic group dissonance, suggesting chains of parallel roi-1s but not yet making them explicit. We can thus speak of two different ways in which the group dissonance fulfills pre-existing tendencies: in the overall organization, it is the culmina-

45 As indicated in Example 7(c) below, the gesture as a whole can be perceived as a permuted four-note version of *a*, which of course contains the three-note *a* shown in Example 5(b).

46 The enlarged-half-step reading was already suggested by Leichtentritt (*Musikalische Formenlehre*). Spicing the A-material with rising 13s, which can be associated with the larger roi-1s in B-material, suggests that the “disrupted fugato” (see footnote 43 above) and “sentence” both entail attempts to bring the two characters closer to each other. In the climax (mm. 50.3–52), however, both types of material appear in their original rhythmic guises, suggesting that one must get to the roots of the problem to solve it.

tion of the problem with the B-impulse’s three *roi-1s*, and within the “development,” it actualizes the suggestion of parallel *roi-1s* as a general voice-leading phenomenon.⁴⁷

4. DELVING DEEPER INTO VOICE-LEADING

4.1 The opening

In addition to the two stepwise strands of the opening melody, stepwise connections are formed between the notes of each strand at primary articulatory positions, pointing to deeper levels of voice-leading. Example 7(a) shows such deeper levels together with other voices, aligning them with the reproduction of the two strands in 7(b).

The initial B₄ and G₄ begin, apart from the surface strands, two larger chromatic descents. The B₄–B₃–A₃ line connects the framing points of the opening melody and then leads to A₃ in the B-impulse. Hearing B₄–B₃ as an enlarged half step is assisted by the registral transfer from B₄ to B₃ (mm. 1–2) and by subsequent inner-voice figures that repeatedly end on B₃, corroborating its focal position (see the lower stave in Example 7[b] and circles in 7[c]; brackets indicate a parallelism between the C₄–B₃–B₄ “alto” figure and the end of the melody).⁴⁸ At the same time, B remains in the harmony thanks to its further transfer to B₂, in anticipation of the anacrustic B₂ of the B-impulse.

The G₄–G₄–F₄ line (Example 7[a]) connects the incipit of the lower strand with the prominent G₄–F₄ half step in the higher strand. The significance of this line is borne out by its later surface materializations, which suggest abbreviated references to the opening events. After the B-impulse, the G₄–G₄–F₄ figure is featured in two registers (octaves 5 and 4, mm. 15–16) to trigger the return toward A-material. Example 7(d) shows the latter statement, aligning it with 7(c) in order to illustrate how the reduced voice-leading line substitutes for the entire “antecedent” before the more concrete, though recomposed, re-appearance of the “consequent’s b. i.” (mm. 17–18). Together with B, the G₄–G₄–F₄ line also surfaces in the *a* figure of the punctuating octave-unison gesture (Example 7[e]).

The bassline events (Example 7[a]) are characterized by permutational relationships with upper voices. The opening G₂–B₂ leap combines arpeggiation with the enlarged half step B₄–(B₃)–B₂, suggesting a foreshadowing of the B₄–B₃ framework.⁴⁹ The larger bass motion F₂–G₂–F₂ forms a voice-exchange pattern with G₄–F₄–G₄. Since

47 The right-hand occurrences of the rising-13 gesture employ all twelve possible transpositional levels except for G–G_♯, suggesting a desire to enhance the singularity of the climactic *ff* G₅–G_♯6.

48 The C₄ and B₄ in mm. 10–11 are shown as having a double function in Example 7(b), connecting with both the opening B and with the D₄ in m. 9. In my view, both connections are perceptible and do not rule each other out.

49 The B₂ might be understood as passing between the opening B₄ and the G₂ in m. 4.

Example 7: The opening; voice-leading sketches

(a) B
 $G\sharp_4$ — $G\sharp_3$ — $F\sharp_4$

(b)

(c) "antecedent" "b. i." "c. i." "consequent" "b. i." varied B-impulse
A-chord B-chord

(d) Cf. return to A-material (voice-leading line substitutes for "antecedent") $G\sharp_4$ $G\sharp_3$ $F\sharp_4$ recomposition of "consequent's b. i." Cf. punctuating octave-unison gesture

the whole step is, by default, a voice-leading interval, the $G\sharp$ bass might be read as a neighbor of $G\flat/F\sharp$, as shown with a question mark in Example 7(a). Within the voice-exchange pattern, however, the pertinent whole steps participate in sustaining the presence of both $F\sharp$ and $G\sharp$ in harmony, implying that their function in this context goes beyond their default position as purely linear connectives.⁵⁰

Another significant half-step relationship connects the “tenor” F_3 to the phrasally analogous E_3 (Example 7[a]), inducing the temporary shift from bass-related roi -11s to roi -10s. Whether the subsequent E_3 – F_3 motion constitutes a structural return—rendering the E_3 a neighbor—or just touches upon the starting point seems somewhat ambig-

50 “In theory,” one might consider reading the $G\sharp_4$ s as incomplete neighbors of the intervening $F\sharp_4$, but such a reading seems unintuitive and lacking gestural support (especially for the first $G\sharp$).

uous, the latter alternative being supported by the temporal coincidence of the E₃ with the governing G_b bass.⁵¹

4.2 The first approach to E_b

The beams in Example 7(a) also suggest that the F₃–E₃ “tenor” line might go on to the E_{b2} bass of the B-chord (m. 12). Owing to registral discrepancy, to the intervening F₃, and to the lack of clarifying factors, however, such a connection appears much more obscure than anything else in this graph—which takes us back to the realm of *problems*. The neat stepwise relationships within the opening A-material throw into relief the apparent discontinuity produced by the E_{b2}, raising the question of whether it might somehow be related to previous voice-leading. The present principles permit reading the E_b as a registally displaced continuation of the “tenor” line; however, the analytical and compositional pertinence of this reading is not confirmed by its immediate cogency but—as with the reading of the B-impulse’s *roi-1s* in Example 4(b)—by subsequent events that seem to react to the problem it involves.

Example 8(a)–(b) illustrates these events. The first element that offers some support for reading the E_{b2} as a displaced “tenor” is the low F_{#1} (m. 13), which restores G_b/F_# as the governing bass and confirms that a downward registral transfer is taking place. As the first two G_b/F_# basses (mm. 2 and 10) support first F and then E in the “tenor,” the E_b appears to be a logical continuation to this chromatic descent (discarding the less decisive F₃ in m. 11). Some uncoordinated motions to E and F follow the E_b in two registers (mm. 13–14), suggesting a somewhat chaotic attempt to relate it to previous voice-leading. The key event in problem-solving takes place, however, when Schoenberg recaptures the moment in which the “tenor” E₃ was introduced, citing and recomposing the “consequent’s c. i.” (mm. 17–18). Whereas E₃ originally ascended to F₃ (mm. 10–11), it now descends to E_{b3}, as if to show E_b its proper place in the inner voice, rectifying its previous displacement and spelling out the problematic E–E_b voice-leading. The bass motion G_{b2}–F₂ supports in parallel *roi-1os*, summarizing the larger bass motion (with F₁ having been established by the *sforzati* in m. 14). Apart from E_b, the common elements between the B-chord and the chord on F₂ include A and G_#, which enhances their association and the perception of the latter as concerned with a problem posed by the former.

After the B-impulse, the character conflict and the problem with E_b are treated in ways that show remarkable cooperation in conveying that the first reaction to this im-

51 This ambiguity is related to the ambiguity of formal functions. From the periodic perspective, the G_{b2}–E₃ interval (m. 10) holds a primary articulatory position at the beginning of the “consequent,” analogous to that of G_{b2}–F₃ in the “antecedent.” In the ternary-form reading, the F₃ (m. 11) occurs at the point of formal closure.

Example 8: The "disrupted period"; form and voice-leading

The musical score is divided into three parts:

- (a) Piano notation:** Shows measures 1-11 and 15-18. It is divided into A-material (measures 1-10) and B-material (measures 11-18). Dynamics include *p*, *ppp*, *sf*, and *p <*. Measure numbers 5, 10, and 15 are indicated.
- (b) Harmonic analysis:** Shows voice-leading for the piano part. Chords are labeled as F, E, (F), E^b, and E. A bass-line "summary" is shown at the bottom with notes F, G^b, and F.
- (c) "fugato" opening:** Shows measures 25-28. Dynamics include *p* and *a*. Chords are labeled as F, F², F³, and E. A slur is labeled *b*.

Additional annotations include:

- "back towards A-material" (mm. 15-18)
- "substitutes for 'antecedent' (mm. 1-8)"
- "consequent's b. i." recomposed (cf. mm. 9-11)
- "consequent's c. i."

pulse is an attempt to minimize its disruptive effect. The recomposed "consequent's b. i." (mm. 17-18) at once cements the reversion of character to A-material and crystallizes the relegation of E^b into the inner-voice line. Complementing this attempt at minimization, the top-voice motion A₃-G[#]3 (m. 18) continues from the point attained at the outburst

Example 9: Mm. 1–34; voice-leading sketch

The image shows a musical score for Example 9, measures 1-34. The score is in treble and bass clefs. Measures 12, 14, 18, 20, 25, 29, 33, and 34 are marked. The sketch shows a chromatic descent in the upper voice from B4 to F#1, with various voice-leading lines and annotations. A question mark (?) is placed in measure 34.

of the B-impulse, as if to parenthesize the intervening B-material, yielding a large chromatic descent $B_4\text{--}B\flat_3\text{--}A_3\text{--}G\sharp_3$, a filled-in enlargement of the opening melodic interval. Hence, both outer voices of the B-chord are integrated into neat half-step descents based on A-material, as if to take control of the disruptive element.

Example 9 sketches the voice-leading through the entire “exposition,” summarizing several previous observations. The chromatic descent can be perceived as eventually reaching $F\sharp$ through the punctuating octave-unison gesture (m. 33)—a perception supported by the articulation of all its elements after the initial B through rhetorically charged “sighing” half-step gestures (mm. 11, 18, 33). Under this reading, the “exposition” is tied together by a chromatic filling-in of the opening outer-voice interval, traversing the registral space between the opening B_4 and the low $F\sharp_1$.⁵²

Before reaching the low $F\sharp$, however, all pertinent problems re-emerge in the “fugato.” As discussed above, a new outburst of B-material leads to a prominent reference to the B-chord, with two of the B-impulse’s *roi*-s ($B\text{--}C$, $E\flat\text{--}E$) appearing as prominent dissonances at the local climax (m. 29). At the same time, the $E\flat_4\text{--}E_5$ dissonance—occurring in a “failed *b*” ($G\sharp_4\text{--}E_4\text{--}E\flat_3$; see Examples 4 and 5)—also suggests a reproblematicization of the $E\text{--}E\flat$ voice-leading relationship. From a motivic perspective, the approach to $E\flat$ relates to the emergence of the *b* figure in a way that suggests a parallelism with the opening “small-scale problem” and *a*. The introduction of both primary bass notes involves

52 Example 9 suggests (with beam and question mark) that the $E\flat$ (m. 12) might eventually, after registral transfers, function as a passing tone going to $D\flat$ (m. 34). However, I find the perceptual support for such a large $F\text{--}E\flat\text{--}D\flat$ passing figure weaker than for the other indicated connections, making it questionable whether such a linear reading is fruitful for describing the function of $E\flat$.

a larger *roi-1* ($G_4-G\flat_2$, $E_3-E\flat_2$), creating problems to which solutions are suggested by equivalent half steps ($G-F\sharp$ in mm. 8–9 and $E-E\flat$ in mm. 17–18). The straightforward juxtaposition of *a* and *b* at the “fugato’s” opening (mm. 25–26, Example 8[c]) suggests a motivic ratification of these half steps—the association between the original $E-E\flat$ motion (mm. 17–18) and the “fugato answer” being enhanced by the accompanying $G\flat-F$ bass motions and by the vicinity of higher $G\sharp/A\flat$ and C —but the “failed *b*,” in turn, signals that the problem with $E\flat$ is far from over.

At this point, it becomes evident that the problems with $E\flat$ and with the subsequent *roi-1s* are closely intertwined. Both the approach to $E\flat$ and the subsequent upward surge involve a problematic *roi-1* with a higher $E\flat$; starting from the “fugato” climax, this interval is featured in ways that can be associated with both problems. For practical reasons, I started my discussion of “idea” with the treatment of the B-impulse’s three *roi-1s*, but the problem with $E\flat$ can be regarded as the more fundamental problem, creating unrest that is immediately reflected and amplified by the *roi-1s* in the ensuing upward surge.

4.3 Motivic perspectives: The emergence of *a* and *b*

Example 10 provides a systematic illustration of the emergence of *a* and *b* and of the parallelism involved. These figures appear here as four-note versions ($B-G\sharp-G\flat-F\sharp$ and $G\sharp-F-E-E\flat$; the three-note versions at the “fugato” opening can be understood as abbreviations). Figures *a'* and *b'* are variants ending with whole steps. Whereas *a* is framed by the outer-voice interval of the A-chord, *a'* goes to its “tenor”; *b* and *b'* relate analogously to the B-chord. The harmonic implications of *a* and *a'* are concretely evident at the opening, when the quarter-note rhythm of the $B_4-G\sharp_4-G\flat_4$ figure extends to the attack point of the left-hand chord, pointing to the bass and “tenor” notes as alternative completions of *a* and *a'*.

Although the $E\flat$ in m. 12 is unexpected, there is a sense in which it is attained through the reproduction of relationships heard during the first four quarter notes.⁵³ The initial trichord $B_4-G\sharp_4-G_4$ is reproduced in transposition at the third beats of mm. 1–3, $G\sharp_4-F_4-E_4$. Each figure is followed by a break in the melody’s regular rhythmic flow, underlining the rhetorical effects of the $G\sharp-G$ and $F-E$ half steps—questioning, as it were, whether they are bound. The privileged answers will be $F\sharp/G\flat$ and $E\flat$, corresponding to the two primary bass notes and requiring two further half steps ($G-F\sharp$ and $E-E\flat$) to complete *a* and *b*, but voice-leading proceeds first with whole steps (G_4-F_4 and E_4-D_4), forming *a'* and *b'*; both are anticipated an octave lower (F_3 , D_3) at the point in which rhythmic regularity would lead one to expect motivic completion. The privileged goals of *a* and *b* are attained in subsequent events, however, as the restated G_4 (m. 4) leads to $F\sharp_4$ (m. 9)

53 In this sense, one may see the roots of the problem with $E\flat$ in the opening motive; cf. footnote 35 above.

Example 10: The opening; emergence of a and b figures

The image displays a musical score for the opening of Schoenberg's Piano Piece Op. 11 No. 1. It consists of two systems of music. The first system features a treble clef staff with notes B, G#, G, F# and a bass clef staff with notes G#, F, E, D. Above the treble staff, a bracket labeled 'a & a'' spans the notes B, G#, G, F# and F. Above the bass staff, a bracket labeled 'b'' spans the notes G#, F, E, D. The second system shows a more complex melodic line in the treble staff and a bass line in the bass staff, with various annotations including 'a', 'a'', 'b'', and 'b'.

and the “tenor” reproduction of the F–E half step (F₃–E₃) is followed by the E_b2 (m. 12). However, whereas the simple G₄–F₄ half step already solves the “small-scale problem” posed by the *a* at the very opening, the obscure E₃–E_b2 motion only introduces the larger problem with which the remaining music is concerned.

4.4 Narrative implications

Several features in the analysis point to the potential of narrative interpretation. As suggested above, there is a plot with an “initial state” (A-chord) and “final state” (B-chord), in which the latter appears first in premonitions that produce problems and unrest (character conflict, problematic *roi*-1s). After unsuccessful attempts to minimize the influence of these elements, the problems are eventually solved—in accordance with the notion of “idea”—enabling the “final state” to be established in stable circumstances. However, the A-chord and B-chord offer few clues for a more specific consideration of the narrative. The relationship between the A-chord and B-chord appears abstract and neutral, not invoking real-world counterparts or polarized emotional responses in the manner of major

and minor chords; nor does it seem meaningful to identify one or the other as eliciting “the analyst’s sympathy,” as required by Byron Almén’s theory of narrative archetypes.⁵⁴

There is, however, another polarity—between A-material and B-material—that more readily suggests correspondences with real-life phenomena. All properties of the opening A-material, including its tendency toward well-organized forms, suggest a striving for conscious and controlled thought, expression, or behavior, whereas the B-impulse appears as an uncontrolled element that disrupts that striving. While a disruptive element might come from the external world, the features that foreshadow the B-impulse (the anticipation of G# and D, the rising “tenor” figure in the “c. i.,” the motivic scheme) make it more fitting to interpret it as an outburst of elements that have already existed subliminally.⁵⁵

These considerations relate evocatively, albeit obliquely, to Schoenberg’s statements about his artistic aims in a letter to Busoni written after the composition of the first two pieces in Op. 11. After noting that what he “had visualized has been attained in neither,” Schoenberg states that his music “should be an expression of feeling, as our feelings, which bring us in contact with our subconscious, really are, and no false child of feelings and ‘conscious logic.’”⁵⁶ While this, of course, gives us no direct clues for the interpretation of Op. 11 No. 1, it shows that Schoenberg’s mind was occupied with the musical manifestations of “conscious logic” and “subconscious” as contrasting forces, increasing the plausibility that such a contrast might have been reflected in one of his recent compositions.

We might thus outline a psychological narrative that starts with an imaginary individual’s conscious and controlled thought or behavior in an “initial state,” which is disrupt-

54 Byron Almén, “Narrative Archetypes: A Critique, Theory, and Method of Narrative Analysis,” *Journal of Music Theory* 47/1 (2003), 1–39, <https://doi.org/10.1215/00222909-47-1-1>. Almén identifies four narrative archetypes based on oppositional poles, depending on whether “order” or “transgression” wins out and on which pole “elicits the analyst’s sympathy as listener” (ibid., 20). Applying Almén’s model to the present plot would also be problematic because of its multidimensionality: different polarities have different outcomes, the harmonic rivalry being decided in favor of “transgression” (B-chord), but the character conflict and 11-vs-1 polarity in favor of “order” (A-material, roi-11s).

55 Also pertinent to this issue are nuances that suggest ambiguity or hesitation in the realization of the opening periodic plan. While the closing functions of the “c. i.” (mm. 4–8) and its eventual counterpart (mm. 19–24) are indicated by *ritardandi*, the *langsamer* indication at the “consequent’s b. i.” (mm. 9–11) fails to support a decisive opening function, instead offering partial justification for the ternary-form reading. Moreover, the “c. i.” and its counterpart lack gestural features that clearly suggest closure, whereas the “consequent’s b. i.” (mm. 9–11) and its recomposition (mm. 17–18) end with “sighing” quasi-suspension gestures that might suggest a closing character. Hence, while the “attempt” to form a period is crucial for the opening events, it is not only disrupted by the B-impulse but is also nuanced by features internal to A-material that suggest less than complete confidence in its realization, subtly supporting the perception of the B-impulse as a manifestation of a subdued internal conflict. For discussion of the opening unit’s functional ambiguity, see also Carl Dahlhaus, *Schoenberg und andere* (Mainz: Schott, 1978), 167–68. The connection between B-material and the subconscious has previously been made in Candace Brower, “Dramatic Structure in Schoenberg’s Opus 11, Number 1,” *Music Research Forum* 4 (1989), 25–52.

56 Ferruccio Busoni, *Selected Letters*, ed. and trans. Antony Beaumont (London: Faber and Faber, 1987), 388–89.

ed by an impulse from the subconscious, pointing to the possibility of a contrasting state. As suggested above, there are no grounds for interpreting these “states” in any particular way; the motion from the A-chord toward the B-chord might be imagined as representing any important transition in one’s life situation.⁵⁷ In any case, that impulse creates unrest and is followed by an attempt to minimize its effect by the means discussed above. The attempt is not fully convincing, however, and a new involuntary impulse impels another image of the contrasting state (reference to the B-chord) to appear at the “fugato” climax. At this point, I would suggest, it becomes evident that such impulses cannot be suppressed with conscious effort. Regardless of whether the A-chord or B-chord elicits more “sympathy” as such, the transition toward the latter proves inevitable, necessitating a change in the imaginary individual’s attitude.⁵⁸ The “initial state” (the elements of the A-chord) is established once more at the juncture between the “exposition” and “development” (mm. 33–34; Example 5[a]), but now as a new start for a more conscious approach toward the “final state” and the decisive, head-on confrontation of the problems that must be solved before its stable attainment.

4.5 The conclusive approach to E \flat

In accordance with the suggested narrative, the first and the final approach to E \flat contrast in various ways. Whereas the first E \flat 2 is introduced through the sudden outburst of B-material and then relegated to an inner voice, the conclusive E \flat 1 is approached—in a more “conscious” way—through the sentential treatment of A-material, and its first tentative occurrence at the end of the “sentence” (m. 45) is amply confirmed by subsequent events. However, the two approaches share a common feature from the perspective of voice-leading, as both are preceded by a prominent F–E upper-voice motion that effects a shift from roi-11 to roi-10 above G \flat /F \sharp , creating a problem with registral discrepancy. In both cases, solutions are sought by ensuing E–E \flat surface figures, but whereas this involves the lifting of E \flat to a higher register in the opening events, such figures are directed downwards toward the conclusion, eventually reaching the closing E1(+2)–E \flat 1(+2) gesture.

57 One imaginable correspondence, highly relevant to Schoenberg’s life, might be the style and idiom with which an artist works: the B-impulse might be understood as a flash of inspiration pointing to a radically new idiom that would enable a fuller expression of tendencies already evident in the artist’s previous work. (Since the A-chord is a familiar sonority from tonality as a double suspension [I7/4], whereas the B-chord—or the [0167] set—clearly exists outside the tonal vocabulary, it would be tempting, but perhaps too far-fetched, to interpret them as hinting at the “tonal-atonal” opposition.)

58 Brower, by contrast, interprets the narrative as unequivocally tragic: “If we understand C [= B-impulse] as representing madness, we can understand the permeation of A [= “b. i.”] by C as the mind of the protagonist gradually giving way to mental illness” (Brower, “Dramatic Structure,” 50).

Example 11: The “development”

While space does not allow discussion of all the details of harmony and voice-leading in the “development,” Example 11 provides an illustration of the most salient and analytically pertinent features. With a few exceptions, the analytical sketch (Example 11[b]) shows only one of the two notes in the rising-13 gesture (ignoring the latent roi-1 tension between them), the higher note for right-hand occurrences and the lower note for left-hand occurrences (B2 in mm. 38 and 42, F#2 in m. 39, E♭1 in m. 45), reflecting their registral prominence.⁵⁹

The beginning part of the “development” is largely governed by the A-chord with enlargements that also suggest associations with the opening (reflecting, in narrative terms, the time it takes to gather strength for the decisive confrontation of the problems). Apart

59 If we regard rhythmic strength and relatively extreme registral position as two criteria of structural significance, these criteria reinforce each other for the right-hand occurrences of the rising-13 gesture but are in conflict for left-hand occurrences, which thus tend to increase tension. It might be noted that rhythmically weak low notes, including grace notes, have traditionally been capable of expressing the functional bass (see, e.g., Beethoven’s Piano Sonata Op. 101, iii, m. 12 ff.).

from the elements of the A-chord, the harmony is supplemented by pervasive parallel 4s (major thirds). The F₅–A₅ leap between the “b. i.” (mm. 34–35) and its varied repetition (m. 36–37) suggests a reproduction of the opening “tenor” leap (F₃–A₅, mm. 2–3), but whereas A is originally introduced as subordinate to B, it now—together with C \sharp —gains harmonic independence, thanks to its registral distance from the low B, and can be perceived as the primary top voice.⁶⁰ The boxes in Example 11(b) indicate instances governed by a harmonic conglomerate that comprises all these elements (the A-chord enlarged with D \flat /C \sharp and A).⁶¹ One of these instances occurs at the outburst of B-material (m. 39), which is thus not linked to the B-chord as in previous cases. (Just before the resumption of A-material, mm. 40–41, there is a motion to E \flat ₅, foreshadowing the upcoming conclusive approach to E \flat , but this remains clearly parenthetical; see the small notes in Example 11[b].)⁶²

The “sentence’s continuation” starts by conspicuously restoring the elements that govern its opening: the low B and F \sharp , and the high 4s in their original register (D \flat ₅–F₅–A₅, m. 42). Both *forte* statements of the rising-13 gesture in the fragmented units—A \flat ₄–A₅ (m. 42) and E \flat ₄–E₅ (m. 43)—play important roles in the subsequent approach to the B-chord. The E \flat ₄–E₅ gesture effects the crucial motion from the “development’s” opening F₅ to E₅. At the same time, it reintroduces the problematic roi-1 between E \flat and E at the surface (not heard in previous occurrences of the rising-13 gesture), reproducing the registral positions at the “fugato” climax (m. 29).⁶³ The subsequent voice-leading is largely obscured by registral transfers, but what is clearly audible is the transference of this rising 13 through D \sharp ₃–E₄ (mm. 44–45) to E \flat ₁–E₂ (m. 45), which contains the first occurrence of the conclusive E \flat ₁, suggesting that it is approached through a reinterpretation of this problematic roi-1.

Although the 32nd-note E \flat ₁ (m. 45) may appear too weak to establish this bass note by itself, it stands out through its occurrence in the last and lowest of the left hand’s rising 13s, and it is subsequently confirmed by the strongest possible means. To the extent that there is a suggestion of a dissonant roi-1 between the E \flat ₁ and the accented E \flat ₂ (or uncer-

60 The A₅–B₅–A₅ neighboring figure in mm. 36–39 refers back to the original voice-leading relationship between B and A, but with the hierarchy reversed.

61 The enlarged A-chord contains “mM7” on F \sharp , thus creating an association with a characteristic chord in the preceding “fugato.”

62 The A₅–F₅–E₅ figure in the fragmented units (mm. 42–43) also suggests a reference to the A₄–F₄–E₄ figure in mm. 2–3, recalling the origins of the F–E half step just before the decisive approach to the goal E \flat .

63 In fact, both problematic roi-1s of the “fugato” climax, E \flat ₄–E₅ and B₃–C₅, are reproduced in m. 43, suggesting that the “sentence” here takes up the latest manifestation of the pertinent problems but places it in an entirely different context to approach the solution. Because of the different contexts, this association is far from conspicuous, but Schoenberg exploits it in setting the flashbacks of m. 42 and the “fugato” climax in succession (mm. 48–49), showing how the latter works as a dramatic replacement of m. 43 (Example 11).

tainty about functional priority), this is resolved when the ensuing left-hand reference to the “b. i.” (mm. 46–47) leads to $E\flat_2$, making the $E-E\flat$ voice-leading perceptible at two levels (furtively prefiguring the climactic b). The ensuing flashbacks begin with the bass’s dramatic silence (m. 48), but then it reappears to hammer out $E\flat$ s in all possible registers, culminating in the climactic $E\flat_1$ (cf. Example 4[c] above).

The top-voice events are likewise obscured by registral transfers. As shown in Example 11(b), A_5 might be heard as moving to $A\flat$ in lower registers, anticipating the B-chord’s top voice, but the rising-13 between $A\flat_4$ and A_5 is again highlighted in a flashback of m. 42 in m. 48. In narrative terms, this is a “moment of truth”: after the tentative probing of the B-chord’s outer voices, one cannot avoid taking the decisive steps. For the top voice, this step is the emphatic $A_5-G\sharp_5$ motion in m. 48, dramatized by the bass’s silence and by the transformation of the $G\sharp_4-A_5$ interval into an explicit $roi-1$ dissonance, which is then followed by the resolution to $A_4-G\sharp_5$.⁶⁴

What remains is the “recapitulation,” which restates, of course, the opening “b. i.,” but in a new context dominated by the B-chord’s outer voices; see Example 12. The climactic $G\sharp_6$ begins a large registral descent, in which the a' figure is embedded within an ingenious combination of b and b' . In contrast to the original, the recapitulated “b. i.” does not underline the $F-E$ half step by a rhetorical pause, as the “whither” question no longer needs to be posed. Instead, the treble moves to D_5 in a straightforward way, completing b' , whereas the left hand first doubles $E/F\flat$ and $E\flat$ (m. 55) and then twice repeats the latter, pointing to $E\flat$ as a goal of b —a suggestion emphatically confirmed by the right-hand thumb’s accented $F_4-E_4-E\flat_4$ figure (mm. 57–58). As shown in Example 3(b) above, two further statements of b follow, leading to $E\flat_2$ and $E\flat_1$.⁶⁵ Together, all the b statements and their registral descent spell out the conclusive solution to the problem with $E\flat$. Whereas the gap between the F_5-E_5 motion and $E\flat_1$ in the “development” renews and amplifies the original registral discrepancy between F_3-E_3 and $E\flat_2$, the “recapitulation” bridges this gap by first taking up the F_5-E_5 motion in the restated “b. i.” and then presenting $(F)-E-E\flat$ motions in descending registral positions that eventually lead to the final

64 Along with the opening B, the A and $G\sharp$ appear to be the three primary treble notes, which raises the question of whether there is a meaningful way to interpret the overall top voice. Given the registers of B_4 and A_5 , the latter cannot be regarded as a passing tone; moreover, while the $A-G\sharp$ motion is dramatized as a half step in m. 48, $G\sharp$ also appears in several other registers, including the climactic $G\sharp_6$ (m. 50). Combining the most prominent occurrences of the three notes yields an ascending arpeggiation toward the climax, $B_4-A_5-G\sharp_6$, which seems to me an appealing reading in part because it reproduces a piece of the B-impulse ($B_2-A_3-G\sharp_4$, m. 12; also verticalized as $B_3-A_4-G\sharp_5$ in the “fugato” climax, m. 29).

65 As shown in Example 3(b), the final b contains another embedded a' , whose permuted shape ($G\sharp_3-B_3-G\sharp_3-F_3$) recalls the punctuating octave-unison gesture, and which bids farewell to the opening figure, with the substitution of $F\sharp$ for $F\sharp$ concretizing the ousting of the latter from governing status.

Example 12: The “recapitulation”

$E_1(+2)-E\flat_1(+2)$ gesture, the ultimate confirmation of the predominance of $E\flat$ in the bass and of the half-step approach to it.

5. FOCUSING ON INTERVAL CLASS 1

This analysis suggests that a central but largely neglected issue in the understanding of harmony, voice-leading, and “idea” in Op. 11 No. 1 is the rich diversification of the functions of interval class 1 according to its registral and temporal presentation. With regard to verticalities, Schoenberg resolutely broke from tradition by employing $roi-11s$ in consonant functions, but instead of treating $roi-1s$ as their equivalents, he exploited the contrasting registral ordering to create functional contrast, relevant to both small- and large-scale tension. For horizontal intervals, the diversification is somewhat more complex: the simple half step retains its traditional position as the strongest voice-leading interval and $roi-11s$ function as arpeggiations, but larger $roi-1s$ are ambiguous, perceptible as enlarged half steps or arpeggiated dissonances, with important ramifications for problems and “idea.”

The correspondences between the functions of vertical and horizontal $roi-1s$ are most likely not arbitrary. The tendency toward the 11-vs-1 principle,⁶⁶ or the greater resistance of $roi-1$ to stabilization in harmony, stems at least partially from this interval’s stronger

66 Manifestations of the 11-vs-1 principle are by no means limited to the music of Schoenberg or Schoenbergians. For one example, Witold Lutosławski notes: “In the course of my recent experiments one truth began to take shape: the intervals of major seventh and minor ninth are, in essence, the antipodes. [...] One can say that all harmonic aggregates built on the basis of the interval of minor ninth [...] bear the marks of destructiveness; they are centrifugal factors. Quite another thing is the interval of major seventh, which is a centripetal element. [...] [I]t is precisely with the help of major sevenths that I often attain the effect of consonance.” Irina Nikolska, *Conversations with Witold Lutosławski* (Stockholm: Melos, 1994), 123–24.

association with the half step, the strongest voice-leading interval. A vertical roi-1 can be heard as invoking but failing to establish a voice-leading relationship between its constituent notes, creating unrest that supports its dissonant effect.⁶⁷ In Op. 11 No. 1, such a hearing is expressly enhanced for its first vertical roi-1 by the rhythm of attack points, which points to the bass as an obscured continuation of the opening figure, creating the motivic “small-scale problem.” Relationships between vertical roi-1s and corresponding half steps become compositionally important in the treatment of large-scale problems, entailing the association of larger horizontal roi-1s with both alternatives. All in all, Op. 11 No. 1 richly exploits both the relationships and the distinctions between the different realizations of roi-1—a spectrum of possibilities ranging from the simple half step through larger horizontal roi-1s to vertical roi-1s with either successive or simultaneous attacks. Except for the simple horizontal half step, all these alternatives involve some sort of unrest reflected in problems and/or dissonance. While problems and dissonance are thus related concepts, they play different organizational roles and should be kept distinct in analysis; at the opening, the dissonance of the G₄–G_{♭2} interval is underlined by the motivic problem, but whereas the former resolves through the G₄–F₄ motion, the latter is only solved by the emergence of the G₄–F_{♯4} half step.

The opening seems, indeed, to provide an ideal focus on roi-11 and roi-1 to establish their functional difference. Not only is the dissonance of roi-1 coupled with the motivic problem, but the releasing effect of the 1–11 resolution is enhanced by the octave doubling of the “tenor.” It is also possible that that the overall organization in Op. 11 No. 1—while by no means the only example of the 11-vs-1 principle in Schoenberg—exhibits an unusually strong compositional focus on the functional diversification of interval class 1. Be that as it may, if this case study has succeeded in demonstrating the organizational potential of such diversification, it suggests that a stronger analytical focus on this issue might be beneficial for the study of Schoenberg in general.

67 Some historical background for the 11-vs-1 distinction is given by the traditional distinction between sevenths and ninths. In traditional harmony, seventh chords play a more independent role than ninth chords, a partial reason for which may be that the pitch class of a ninth’s resolution is saliently perceptible in the bass, making its instability more palpable than that of a seventh (cf. the discussion of seventh and ninth chords in Edward Aldwell and Carl Schachter, *Harmony and Voice Leading* [Fort Worth: Harcourt Brace Jovanovich, 1979], 125). Such instability is especially strong for the minor ninth, because the half step of the expected resolution is the most intensive voice-leading interval (and also because of the strong psychoacoustical dissonance of the minor ninth). While the 11-vs-1 principle differs in many ways from the traditional seventh-vs-ninth distinction, its emergence might have been influenced by traditional ways to experience these intervals. Even though roi-1s do not necessarily resolve by descending half steps in Op. 11 No. 1, descending half steps abound in general, creating contextual support for perceiving the pitch class of a roi-1’s lower note as suggesting the higher note’s likely voice-leading goal.

Abstract

This analysis of Schoenberg’s Op. 11 No. 1 demonstrates ways in which two register-sensitive principles of harmony and voice-leading shed new light on its pitch organization.

The *11-vs-1 principle* posits a distinction in harmonic stability between the registrally ordered intervals 11 and 1 (hereafter *roi-11* and *roi-1*). This is manifest both in local relationships that suggest functional consonance and dissonance and in the large-scale emergence of a “group dissonance,” i.e., the temporary predominance of *roi-1* in marking the climactic high point of tensions.

The *proximity principle* distinguishes between the functions of “stepwise” and larger horizontal intervals. Whereas the former serve a purely horizontal function in voice-leading connectives, the latter imply arpeggiation. This distinction helps to reveal connections between prominent harmonies and linear frameworks, concerning in particular horizontalizations of two referential harmonies—the first and last block chords—and their changing relationships.

In addition to clarifying basic aspects of harmony and voice-leading, the two principles help to identify elements of *unclarity* or *problems* whose compositional significance is substantiated by the subsequent concern for their clarification or solution in accordance with Schoenberg’s notion of “idea.” An important source of problems is the ambiguous function of larger horizontal *roi-1s*, which can represent enlarged half steps or arpeggiated dissonances. Such problems arise in connection with the textural contrast in m. 12 and are reflected in various ways on both the small and the large scale by events that point to the contrasting interpretations, producing unrest that culminates in the climactic “group dissonance.”

About the Author

Olli Väisälä studied music theory, composition, and piano at the Sibelius Academy, Helsinki, earning his doctorate in 2004 with the dissertation *Prolongation in Early Post-Tonal Music: Analytical Examples and Theoretical Principles*. He has taught music theory and analysis at the Sibelius Academy since 1992. Väisälä has published theoretical and analytical papers in various international and Finnish journals and anthologies on topics that include both Schenkerian analysis and its evidential basis (especially concerning the music of Bach) and the analysis of early post-tonal music with a special focus on register-sensitive aspects of harmony and voice-leading.