

Unravelling Schoenberg's Violin Concerto: Tracing the Crystallization of the Idea as a Performance Plan in the First Movement

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The concept of the Idea preoccupied Schoenberg for over thirty-five years of his life.¹ During this time he produced a variety of descriptions and reflections on the Idea that sometimes include contradictions. Issues – including whether the Idea is reflected in the notation; if the Idea is the inspiration [*Einfall*]; whether the whole piece rather than constituent parts act as the Idea; or even if it is possible to express verbally what the Idea is – have changed over this thirty-five-year period. Different scholars have also approached the concept of the Idea in different ways, ranging from the spiritual and mystical approach to more rigorous and theory-based approaches.²

The common thread in Schoenberg's own writings, however, is his assumption that a piece of music is always connected to an immaterial or intangible concept. This concept – the Idea – is the “eternal” element of the work and the one that remains “unalterable”.³ The piece of music is not only guided by the Idea but it also presents it to the listener. Along these lines, Severine Neff and Patricia Carpenter have tried to trace the presentation of the Idea in classical repertoire by organizing the *Gedanke* manuscripts.⁴ These writings reveal Schoenberg's musical vocabulary and the musical language he thought he inherited: the motive, *Gestalt*, *Grundgestalt*, phrases, antecedent and consequent, sentence and period and all the other elements that comprise the repertoire of western classical music.

The establishment of the motive at the beginning of a piece is an essential compositional process since it can be traced in the music that follows. In his 1934 *Gedanke* manuscript, entitled “Elements of Form”, Schoenberg describes the importance of the motive, stating that “at any one time the smallest part of a piece or section of a piece [the motive] that, despite change and variation, is recognizable as present throughout”.⁵ The new material necessary for the continuation of the piece is achieved through the process of variation. Certain features of the motive are kept and others are changed, resulting in new thematic ideas. In this sense not only does the motive include elements that are *changed* and reproduced in later musical material – as Schoenberg names it “the smallest common multiple”, but *unchanged* elements of the motive are also

1 As an example, one of the early accounts is found in his 1912 essay “Gustav Mahler” (449–472), while one of his latest is found in his 1947 essay “Brahms the Progressive” (398–441) in Arnold Schoenberg, *Style and Idea: Selected Writings of Arnold Schoenberg*, ed. Leonard Stein and trans. Leo Black (London: Faber, 1975).

2 John Covach, “Schoenberg and the Occult: Some Reflections on the ‘Musical Idea’,” *Journal of the Music Theory Society of New York State*, 17 (1992): 103–118; Alexander Goehr, “Schoenberg and Karl Kraus: The Idea Behind the Music,” *Music Analysis* 4 (1985): 59–71; Patricia Carpenter and Severine Neff, “Schoenberg's Philosophy of Composition: Thoughts on the Musical Idea and its Presentation,” in *Constructive Dissonance: Arnold Schoenberg and the Transformations of Twentieth-Century Culture*, eds. Julianne Brand, and Christopher Hailey (Berkeley, Los Angeles and London: University of California Press, 1997), 146–159; Charlotte M. Cross, “Three Levels of ‘Idea’ in Schoenberg's Thought and Writings,” *Current Musicology* 30 (1980): 24–36.

3 The former term is from his essay “New Music, Outmoded Music, Style and Idea” written in 1946. Here Schoenberg compares Bach's music to that of his contemporaries (i.e. Telemann and his son Philipp Emanuel Bach) suggesting that it has remained “eternal” (118) since his works express new ideas instead of mere compositional techniques. The latter term is from Schoenberg's essay “Mechanical Musical Instruments” (326) written in 1926. See Schoenberg, *Style and Idea*.

4 Arnold Schoenberg, *The Musical Idea: And the Logic, Technique, and art of its Presentation*, ed. and trans. Patricia Carpenter and Severine Neff (Bloomington: Indiana University Press, 1995).

5 *Ibid.*, 129.

included in the material after – which explains why he characterizes the motive “the smallest common factor”.⁶

Since the only way to continue a piece of music according to Schoenberg is to vary the motive, it is necessary to examine if the motive is involved in any other musical formation. The next larger structural unit that Schoenberg considered important is what he named *Gestalt*. However, Schoenberg also claimed that the *Gestalt* “need not necessarily have more than local significance”.⁷

Instead, he attributed major importance to the *Grundgestalt*, describing it as incorporating shapes that “occur repeatedly within a whole piece and to which derived *gestalten* [shapes] can be traced back”.⁸ In simpler terms Schoenberg viewed the *Grundgestalt* as the “mother” shape of a piece or a *Gestalt* with enhanced influence. Its pervasiveness is stressed earlier, in Schoenberg’s 1931 essay “Linear Counterpoint”, where he claimed that “Whatever happens in a piece of music is nothing but the endless reshaping of a basic shape [*Grundgestalt*]”.⁹

In twelve-tone music, Schoenberg related the *Grundgestalt* to the prime row itself. Schoenberg mentioned this connection in various places in his writings, ranging from his 1934 *Gedanke* manuscripts to his 1948 book *Structural Functions of Harmony* and 1949 essay “My evolution”.¹⁰ In the Violin Concerto composed in 1936, however, even though the prime row contains all the elements of the piece, it is the first eight measures and especially their partitioning that act as the *Grundgestalt*. Why is the specific partition important and what happens within this short space?

Tracing the Motivic Influence of the 4-3 Tetrachord in the First Movement

The main aspect of this article is to demonstrate the overarching importance of the 4-3 tetrachord on a motivic and thematic level. This all-encompassing influence proves crucial in resolving Schoenberg’s concept of the problem, which in turn needs the balancing act of the Idea. This article will delineate how the 4-3 tetrachord is the Idea in the Concerto. A unique viewpoint of this analysis is to transform this analytical insight into a performance-based understanding. The culmination of this understanding is the final graph and the performance plan that is offered at the final section. This thought process emanates from the author’s own experience in performing, practicing and rehearsing this piece, alongside his long-standing role as a violinist/performer. The first step in understanding the unique status of the 4-3 tetrachord, is to trace it from within the music, in view of its motivic organization.

In line with Schoenberg’s observation, the motive appears in “a characteristic and impressive manner at the beginning of the piece”.¹¹ The solo violin plays motive Y unaccompanied, outlining its “trademark” semitone movement (pitch classes A-B”) and rhythmic pattern: a dotted quarter note and eighth note (see Ex. 1). Schoenberg then repeats motive Y a third higher, between pitch classes C-D” (mm. 2-3), changes its ascending direction to descending (mm. 4-5) and finally varies its rhythmic layout (m. 6). The latter variation includes the reduction of the dotted rhythm of motive Y with an addition of an eighth note upbeat, establishing the pervasive motive X.

6 Arnold Schoenberg, *Fundamentals of Musical Composition* (London: Faber and Faber, 1999), 8.

7 Schoenberg, *Style and Idea*, 129.

8 Ibid.

9 Ibid., 290.

10 In the *Gedanke* manuscripts he claimed that the term is better called in English as “basing-set”, or “12-tone set”, or “basing 12-tone set”, or briefly: “set” (Schoenberg, *The Musical Idea*, 237). Fourteen years later, in 1948, the same claim is repeated when he wrote that the twelve-tone method “derives all configurations [elements of a work] from a basic set (*Grundgestalt*) [tone row or note-series]” (Schoenberg, *Fundamentals of Musical Composition*, 193–194). Likewise, in “My Evolution”, Schoenberg named the “basic set of twelve tones” as *Grundgestalt* (Schoenberg, *Style and Idea*, 91).

11 Schoenberg, *Fundamentals of Musical Composition*, 8.

Example 1 – First eight measures of the first movement

The musical score consists of three systems. The first system shows measures 1-4. The S.V. part begins with Motive Y (P-0) in measures 1-4, marked with a 4-3 tetrachord. The VA and VCL parts provide accompaniment, with the VCL part playing a rhythmic pattern (Ra) in the lower line. The second system shows measures 5-8. Motive X is introduced in measure 5, marked with a 4-3 tetrachord. The accompaniment continues with various rhythmic figures (Rd, Ra, Rd', Ra2', Rd'').

The relationship between motives Y and X can also be visualized in a different way. Motive X derives from an eighth-note beat subdivision of motive Y with the addition of the characteristic dotted rhythm at the end of the gesture. In terms of musical effect, they both create a clear anacrusis feeling, but the use of the rest at the beginning of motive X enhances the sense of movement. The eighth-note rest establishes an exact and precise equivalence of half measure, solidifying their interrelation.

It is mainly the rhythmic content of motive Y that unites the material of the accompaniment too (annotated as Ra in Ex. 1). The lower line of the *divisi* cellos plays the rhythmic pattern of the motive, while the top line also retains its characteristic semitone movement.¹² Schoenberg gradually increases the length of this figure by adding extra values on either side of the motive. In mm. 3-4 Schoenberg adds an upbeat to figure Rb, creating figure Rc, which later is elongated to that of Rd. Ra2 is an enlargement of Ra, through the addition of an eighth-note value in its rhythmic pattern.

According to Schoenberg the *Gestalt* often consists of a “motive chain”.¹³ In this case, the chain includes three repetitions, while the listener encounters a “striking interval”, the semitone, and “a striking rhythmic progression”, the dotted quarter-note-eighth-note.¹⁴ In terms of serial structure, this group of notes derives from the {1,2,7,8} order number, which form the 4-3 tetrachord (see Ex. 1).¹⁵ This non-linear partitioning creates two other tetrachords: 4-14 or the {3,4,5,6} order number at mm. 2 and 5, and 4-13 or the {9,10,11,12} order number at mm.4, 6 and 7, which Schoenberg employs harmonically.

The relevance of this partitioning becomes clear at the beginning of the middle section (mm. 93–118), where tetrachord 4-14 plays a significant role in organizing the thematic material. In a sense, the 4-14 tetrachord is ‘born’ through the 4-3 partitioning of the row and, therefore, connects two sections through a related contrast.

¹² Throughout these eight measures, the accompaniment outlines figure Ra in minor/major 2nds, minor 3rds and perfect/augmented 4ths.

¹³ Schoenberg, *The Musical Idea*, 129.

¹⁴ Ibid.

¹⁵ This classification is from Allan Forte’s *Structure of Atonal Music* (1973) and it will be used throughout this paper.

Tracing the Thematic Influence of the 4-3 Tetrachord in the First Movement

After the first eight measures, the 4-3 appears in the secondary voices during the presentation of the second theme, Theme I-1b (mm. 8-14), and the last theme of the subject, Theme I-1a" (mm. 24-31). It also appears in the Transition between the two subject areas, where Schoenberg prepares the ground for the second subject by emulating its melodic shape, in order to prepare the music shape that will be heard in fourteen measures (see A-B-C-A" in Ex. 2a).

Example 2a – Theme I-2a, mm. 52–58

Example 2b – Theme I-2b, mm. 61–67

In Theme I-2a (Ex. 2a) and Theme I-2b (Ex. 2b), the 4-3 is the foundation of the melody. A more tranquil character is achieved for both themes, by keeping an equal length presentation for every constituent note of the 4-3.¹⁶ In the first subject area this tetrachord is extracted from the order number {1,2,7,8} however, in the second subject Schoenberg uses order number {1,4,7,10}.

By employing Forte's set theory analysis, it becomes apparent that these two formations share the same normal order.

The use of the 4-2 tetrachord in Theme I-2a (Ex. 2a) should not be regarded as a slip of Schoenberg's pen. In fact, it can be viewed as an affirmation of his desire to implement a variation of the main motive. The 4-2 tetrachord is extracted through the previously employed {1,4,7,10} order number; thus, this variation arises because Schoenberg employs the R-0 row form for this second phrase in mm. 55–58. In the Development section (see Ex. 6) these tetrachords are used again side by side, demonstrating their deliberate use.

After the end of Theme I-2b Schoenberg employs the 4-3 tetrachord in bridge passage I, II (mm. 73-80, Ex. 3) between the second subject and the closing theme. Here Schoenberg reverts to the exact partitioning of the opening measures but incorporates a much more “energetic” projection of the partitioning through constant eighth and sixteenth notes. The instruments involved play the 4-3, 4-14 and 4-13 tetrachords. The last two are the remaining tetrachords derived from the prime row, when the 4-3 is extracted from the order number {1,2,7,8}. The solo part, together with the flutes and first violins, undertake the 4-14 and 4-13 tetrachords, while the main motive is emphasized by the pervasive timbre of the xylophone.

Example 3 – Bridge passage I, II, mm. 73–79

The importance of the 4-3 tetrachord is demonstrated in the way Schoenberg highlights it in the texture in two more instances. The first appears within mm.76-78, where the piccolo and flutes play order number {1,2,7,8} and the second in mm. 78-79, played by both first and second

16 In Theme I-2a the constituent elements are quarter notes tied to sixteenth notes, with a half note at the end. In Theme I-2b Schoenberg uses half notes and a whole note.

violins. In the first instance the flutes commence the 4-1 tetrachord, which can be interpreted as a varied form of the 4-3 tetrachord that follows (see Ex. 3). The employment of a high register and the fact that both lines are marked *Hauptstimme* indicates the emphasis of the tetrachord.

The function of bridge passage II is once more explanatory (Ex. 4).¹⁷ It explains how Schoenberg uses motive Xo, which is a variation of motive X, in order to arrive at the motive he uses in the closing theme of the Concerto.¹⁸ By using the mirror image of motive Xo across the bar line, plus an extra eighth note (motive P-S), Schoenberg arrives at motive S, which converts the last two eighth notes of motive P-S into quarter notes. This transition demonstrates the “logical” compositional process in the Concerto and resembles the developmental nature of a transition in a sonata form.

Example 4 – Motives in Bridge Passage II and Closing Theme

Example 4 a

Example 4 b

Example 4 c

Before the exposition comes to an end, Schoenberg again reminds the listener of the 4-3 tetrachord (Ex. 5). Tetrachords 4-3 and 4-2 are combined (mm. 90-92), played by the solo violin and the first violins at the top range of the orchestral register. This is reminiscent of the Theme I-2a because Schoenberg employs order number {1,4,7,10} from both P-5 and RI-10 row forms, copying his previous method of juxtaposing a normal and a retrograde row format.

17 The first transition in mm. 32–51 is also explanatory in the sense that it changes the condor of the two formats of the 4-3 tetrachord. The one used in the First Subject Area deriving from the {1,2,7,8} order numbers and the one used in the Second Subject Area from {1,4,7,10} order number.

18 For a discussion of motive Xo please look at p. 7.

Example 5 – *Codetta*, mm. 90–92

The musical score for Example 5, mm. 90–92, is presented in four staves: Solo Violin (S.Vl.), Violin I (Vln. I), Viola (Vla.), and Violoncello (Vlc.). The score is in 4/4 time and features a complex rhythmic and melodic structure. The S.Vl. staff begins with a forte (*f*) dynamic and includes performance markings such as *ACCEL* and *RIT POCO A POCO*. The Vln. I, Vla., and Vlc. staves enter in the second measure with a fortissimo (*ff*) dynamic. The score is annotated with various tetrachord labels (P-5, 4-3, R-5, I-10, RI-10) and fingerings (e.g., 1 4 7 10, 3 4 7 11, 1 5 9 4 8, 1 5 9 9 5 1, 1 4 7 10, 2 5 8 11, 2 6 8 12, 3 5 8 12, 1 5 7 10, 12 8 6 1 3 6 7 10, 2 7 10, 1 4 7 10, 1 4 7 10, 1 5 9, 4 8 11, 3 6 12) in red ink. The S.Vl. staff also includes a *MOLTO RIT* marking towards the end of the passage.

The first part (mm. 93-118) of the Development outlines linearly for the first time the 4-14 tetrachord using the variation of motive Xo γ μ ν ξ , where the rest is now placed in between the three eighth notes (named motive X-r: μ ν ξ γ). In the second part (mm. 119-144) motive X-r also develops the previously “hidden” structure of 4-3 and 4-2 tetrachords (Ex. 6), which is reminiscent of the first theme of the second subject (Theme I-2a in Ex. 2a). These instances bring to mind Schoenberg’s description of the elaboration which sometimes “deals with themes which were unimportant or subordinate at their first appearance; and occasionally an idea appears which, though deriving from the basic material, never appeared before as formulated” (1967: 201).

A distinctive example of a new variation of an old idea is the new theme (Theme I-D2 in Ex. 6) in the second part of the Development (mm. 125-134). Here, not only is the piccolo clarinet clearly featured for the first time, but also Schoenberg creates new material from the previously heard 4-2 tetrachord. Musically, this theme lends its fluidity to the rest of the Development, accentuated by the fiendish *ricochet* interjections of the solo violin. The Development thrives on such an unstable construction which is in contrast to the more stable structure of the Exposition.

Example 6 – Theme I-D2 and I-D3

The image displays a musical score for Example 6, titled "Theme I-D2 and I-D3". It consists of two violin staves (Vl. I and II) and three piccolo clarinet staves (Cl. PICC.).

- Theme I-D2 (Measures 119-125):**
 - Violin I: Starts at measure 119 with a *pp* dynamic. It features Motive X-r (measures 119-121) and Motive X0 (measures 122-125). Annotations include P-4, 4-3, and RI-9.
 - Violin II: Starts at measure 123 with Motive X0. Annotations include 7 and 8.
- Theme I-D3 (Measures 125-153):**
 - Cl. PICC. 1: Starts at measure 125 with a *p* dynamic. It features Motive X0 and Motive X-r. Annotations include I-9, 5, 6, 11, 12, R-4, and 7.
 - Cl. PICC. 2: Starts at measure 129 with a *p* dynamic. It features Motive X0 and Motive X-r. Annotations include 4-2, RI-9, P-4, and I-9.
 - Cl. PICC. 3: Starts at measure 133 with a *p* dynamic. It features Motive X0 and Motive X-r. Annotations include P-4 and 2.

Dashed lines connect specific notes between the violin and piccolo clarinet staves, indicating relationships between the themes.

Overall, the “working out” characteristics of the Development, or what Schoenberg called “elaboration”¹⁹, and the fact that it highlights previously undeveloped material (namely the 4-14 tetrachord), create a distinctive sonata form design. Another reason as to why the whole movement resembles sonata form (see Table 1 for an overall structure of the movement)²⁰ is the handling of the Recapitulation and how Schoenberg blurs the boundaries by including a sonata form section: a retransition (mm. 162-169).

19 For more details see p. 9. See Andrew Mead, “Large-Scale Strategy in Arnold Schoenberg’s Twelve-Tone Music,” *Perspectives of New Music* 24, no. 1 (1985): 120–157; Marianne Richert Pfau, “The Potential and the Actual: Process Philosophy and Arnold Schoenberg’s Violin Concerto, Op. 36,” *Theory and Practice* 14, no. 15, (1989–90): 123–138; Hugh Collins Rice, “Serial Expression in Schoenberg’s Violin Concerto, Op. 36,” *Tempo* 63, no. 247 (2009): 38–44.

20 A brief explanation of the terms used on this Table: Mat. means material, FSG is First Subject Group, SSG is Second Subject Group, Cl. Th is Closing Theme (also shown with a more specific and analytically consistent label: ThI-3) and ThI-N indicates the presence of new material (N).

Table 1 – Overview of the Quasi Sonata Form of the Movement

Exposition					
First Subject Group	Transition	Second Subject Group	Bridge Passage I, II	Closing Theme	Codetta
Bars 1 – 31	32 – 51	52 – 66	67 – 80	81 – 90	90 – 92
ThI-1a (1-7) P-0/I-5 ThI-1b (8-14) P-0/I-5 ThI-1c (15-19) R-0/RI-5 ThI-1d (20-23) P-0/I-5 ThI-1a' (24-31) P-0/I-5	Mat. from FSG (32-35) Mat. from SSG (36-44) P-0/I-5 Liquidation (45-51) P-4/RI-1	ThI-2a (52-58) P-0/I-5 ThI-2b (61-66) P-7/I-0	Mat. from FSG (67-75) P-7/I-0, P-5/I-10 Mat. From Cl. Th (76-80) P-3/I-8	ThI-3 P-9/I-2, P-5/I-10	Mat. from ThI-2a P-5/I-10

Development					
First Part	Bridge Passage	Second Part	Bridge Passage	Third Part	Retransition
Bars 93 – 115	116 – 118	119 – 134	135 – 144	145 – 161	162 – 169
ThI-D ₁ (93-105) RI-0/RI-5 ThI-D ₁ ' (106-112) P-0/I-5	Liquidation P-8/I-1	ThI-D ₂ (119-125) P-4/I-9 ThI-D ₃ (125-134) P-4/I-9	Mat. From Motive X & Motive R ₁	ThI-D ₃ R P-7/I-0	Mat. From ThI-1a P-3/I-8

Recapitulation				
First Subject Group	Bridge Passage	Closing Theme	Cadenza	Coda
Bars 170 – 204	205 – 216	217 – 229	230 – 233	234 – 265
ThI-1a (170-174) P-3/I-8 ThI-1d (175-181) P10/I3 ThI-2b(182-188) R-10/RI-3 ThI-1c (188-196) R-10/RI-3 ThI-1a' (197-204) P-6/I-11	Mat. from FSG (205-211) Mat. from ThI-3 (212-217) P-9/I-2	ThI-3 (217-219) P-0/I-5 (220-221) P-9/I-2 (221-229) P-5/I-10	Mat. from ThI-1d & ThI-1a P-3/I-8	ThI-N (234-242) P-11/I-9, P-5/I-10 Mat. from ThI-3 (242-246) P-0/I-5 Mat. from ThI-1a (247-265) P-0/I-5

In the retransition, a more concealed appearance of the 4-3 occurs, where Schoenberg presents the 4-3 tetrachord diagonally. In the example below (Ex. 7) the trombones and the violins share the presentation of the 4-3 tetrachord, but they outline a linear presentation of the 3-1 tri-chord. The flowing direction of the dotted rhythm of motive Y is intact, but this time it sounds much louder, and the trombones help to create an abrasive sound that cuts through the texture. Once again this is a deliberate attempt to vary the 4-3 tetrachord material, because the accompaniment outlines the remaining two tetrachords 4-14 and 4-13, indicating that the only resulting tetrachord that could be used is 4-3.

Example 7 – Retransition, mm. 162–165

At the beginning of the Recapitulation (m. 170) Schoenberg inserts a section where the 4-3 tetrachord is absent for at least fifteen measures. However, in this part of the music there are short motives that derive from it. The characteristic semitone movement and dotted rhythm (motive Y) is reminiscent of the initial layout of this tetrachord in Theme I-1a. The 4-3 tetrachord appears also in the solo violin line in mm. 186-187 (Ex. 8). Although Schoenberg employs the P-10/I-3 row forms, instead of the P-0/I-5 found in the opening, he still constructs this tetrachord with the exact notes used in the opening, i.e. pitch classes A, B \flat , C and D \flat . In particular, he uses order number {4,7,11} from P-10 and order number 10 from I-3 in order to match the {1,2,7,8} order used in the opening. This time the dotted rhythm is abandoned, and the soloist puts equal weight on each note, emphasizing the serial content of the 4-3 tetrachord.

Example 8 – Theme I-2a in Recapitulation, mm. 182–188

At m. 194 the same layout of the 4-3 tetrachord is repeated again (Ex. 9), where the solo violin plays order number {1,4,7,10} from P-10 row form, finishing on the highest note it has played so far. Although the complexity of this section can obscure this quality, the intensity of the fortissimo dynamics from m. 170 and the sheer height of this note enhances the impact of the main motive.

Example 9 – Theme I-2a' in Recapitulation, mm. 194–196

Two more appearances of the 4-3 tetrachord are located in the cadenza and the coda of this movement. In the latter this tetrachord is more prominent while in the former it appears in its closing section. In the cadenza (mm. 230-233) the 4-3 tetrachord is transformed and stripped of its characteristic dotted rhythm. In terms of its intervallic content Schoenberg again uses order number {1,2,7,8} from P-3 row form, in order to create a bass line and the two hexachords of the I-8 row form, for the arpeggio figure (Ex. 10).

Example 10 – Solo violin cadenza, m. 233

In the coda (mm. 234-265), the 4-3 tetrachord is picked up in m. 249 by the solo violin and marks the start of an accelerando, where the serial content of the main motive is transformed into the 4-7 tetrachord. As outlined in Example 11, Schoenberg retains the same rhythm but uses different notes, order number {3,5,9,10} of P-0/I-5 row forms, in order to create a varied version of the main motive.²¹ The difference includes the intervallic link between the two semitones of the 4-3 tetrachord, which is changed from a major second to a minor third (i.e. A-B[♭]-C-D[♭] to E[♭]-E-G-A[♭]).

²¹ It should be noted at this stage that the pairing of Prime and Inverted row forms that are a fifth or a fourth apart (for example: P-0/I-5, P-10/I-3 or P-9/I-2), is guided by hexachordal combinatoriality. This relationship allows Schoenberg to present all twelve pitch classes since the corresponding hexachords of such related row forms complete an aggregate.

Example 11 – Coda, the transformation of 4-3 to 4-7 tetrachord

The image displays two staves of musical notation for a violin part. The first staff, starting at measure 249, contains two tetrachords: a 4-3 tetrachord (P-0, 1, 2, 7, 8) and an I-5 tetrachord (1, 2, 7, 8). The second staff, starting at measure 255, contains two 4-7 tetrachords (9, 10, 3, 5) and another 4-7 tetrachord (9, 10). The notation includes various musical symbols such as notes, rests, and dynamic markings like 'f'.

The Twelve-Tone Problem and the Balancing Force of the Idea

According to Schoenberg, the problem or the challenge inherent in a tonal piece cannot be expressed in twelve-tone music. In a 1925 unpublished *Gedanke* manuscript, where he discusses how a tonal piece always keeps a tone related to the tonal center, he stated that “Composition with 12 tones related only to one another [...] presupposes the knowledge of these relationships, [and] does not perceive in them a problem still to be solved and worked out”.²²

Jack Boss, however, claims that in this quote Schoenberg refers to the tones that are related to each other and suggests that “There are other planes on which musical elements can be opposed to one another within a twelve-tone row”.²³ In his article, Boss maintains that twelve-tone pieces do in fact present a dialectical idea which includes posing, elaborating and solving the problem.²⁴ His approach demonstrates how the composition reveals the way that “latent” (220) pitches are related to the row itself and to the prominent or what he calls “salient” (220) pitches themselves.²⁵

This is the reason why Boss explores the intervals created by adjacent and non-adjacent pitches or pitch classes. His approach relies on Stephen Peles’s research that explores how a set of “uninterpreted” structures, meaning the abstract formation of the row, can generate further relations between pitch classes that are not even present in the initial ordering.²⁶

In my analysis of the Concerto, I use Boss’s approach based on the relation between adjacent and non-adjacent pitch classes, in order to explain how Schoenberg has instigated a problem. In my view, as a performer, the problem obstructs the logical unfolding of the material, or what Schoenberg called “comprehensibility” and operates mainly at a motivic level. At the beginning of the Concerto, it is expressed through the intentional absence of the 4-3 tetrachord from the hexachordal structure of Theme I-1b (mm. 8-14), Theme I-1c (mm. 15-19) and later Theme I-1d (mm. 20-23).

The tetrachordal partitioning of the first theme, Theme I-1a (see Ex. 1, mm. 1-8), outlines the non-adjacent formation {1,2,7,8} or the 4-3 tetrachord in P-0 and I-5 and also introduces motive Y: ♩. At the beginning of the next theme however, Theme I-1b (m. 8), the listener encounters two obstacles. The first one is the transformation of motive X, namely the dotted rhythm at m. 6 ♩ that converts to a remote variation, motive Xo ♩. The second concerns their intervallic

²² Schoenberg, *The Musical Idea*, 277, emphasis in the original.

²³ Jack Boss, “The ‘Musical Idea’ and Global Coherence in Schoenberg’s Atonal and Serial Music,” *Integral* 14/15 (2000/2001): 219.

²⁴ For an explanation of these three functions of the Idea see *ibid.* 212. The same issue is also discussed in Jack Boss, *Schoenberg’s Twelve-Tone Music: Symmetry and the Musical Idea* (Cambridge: Cambridge University Press, 2014), 9.

²⁵ Boss, “The ‘Musical Idea,’” 220.

²⁶ Stephen Peles, “Continuity, Reference and Implication: Remarks on Schoenberg’s Proverbial Difficulty,” *Theory and Practice* 17 (1992): 54.

content that transforms from a descending semitone to an ascending semitone and an ascending fourth. The motives are thus subjected to both rhythmical and intervallic changes.

The fundamental issue is that all these changes concern not only aural perception but also emanate from a performance perspective that proves the musical application of this analysis.²⁷ In the first eight measures, the up-beat motion of motive Y lands on the same note as the eighth note, creating a more static presentation of the opening partition. The almost restricted sense of movement in the first eight measures, however, is juxtaposed to the flowing character of the first *dolce* indication in the piece that starts at measure 8 (see Ex. 12).

²⁷ Here the term performance perspective is distinguished from the listener's perspective (aural perception) because the former is a process that requires the convergence of analytical and emotional processing that culminates in an interpretation, something that the listener does not have to produce, at least to the same degree.

Example 12 – *The problem in the First Subject*

Coincidentally, this is the point where the first projection of the full row in adjacent pitches takes place. In broader terms the problem reflects a larger issue: the constant battle between tetrachordal and hexachordal partitioning. Marianne Pfau describes a similar friction between Theme I-1a, named “motto”, and the “phantastico” element of the Second Subject, as two opposing forces that “proceed through many conflicts without ever finding complete resolution”.²⁸ Her article, however, does not investigate the root of this friction.

If the whole movement is viewed in this light, each section can be identified as displaying a different process or outcome of this friction, which inevitably succumbs to the gravitational forces of the 4-3.

In the Exposition, the first subject returns to the 4-3 and its partitioning (mm. 29-31), while the transition that attempts to liquidate the 4-3 tetrachord (through semitone scales in mm. 45-50) cannot escape the projection of the same partitioning in P-4 (mm. 51-52). The second subject manages to reduce the intervallic span of motive Xo into semitones (mm. 61 and 64 in Violins I and II) and attempts a synthesis of the two forces. The bridge passage that follows the second subject (mm. 73-80) in fact neutralizes the intervallic content of motive Xo until m. 75, but later succumbs to the centripetal force of the 4-3 tetrachord. At the Codetta (see Ex. 5) the thematic material once more revolves around the 4-3. However, Schoenberg emphasizes the dominance of motive Xo by creating triplet articulation attacks within the sixteenth notes. At the end the listener hears an emphatic projection of motive Xo, outlining the largest intervallic content of the motive so far: a fourth and a sixth (G-C-A).

²⁸ Pfau, “The Potential and the Actual,” 136.

In the Development section Schoenberg approaches the problem through a different route, in line with his own observation that during a composition the problem is “carried through many contradictory situations”.²⁹ In the first part of the Development (Ex. 13, mm. 93-118) 4-14 dominates the tetrachordal structures and separates the first theme of this section in four against six once more.³⁰ The novel use of the 4-14 in linear tetrachordal formations in conjunction to non-adjacent hexachordal formations signifies Schoenberg’s intention to provide a new context for the problem.

Example 13 – *The Development*

The middle section of the Development (mm. 119-144) is the only area where the 4-3 “creeps” into the texture (Violin I line at mm. 119-121 in Ex. 6). However, it is quickly abandoned and the closely related 4-2 tetrachord dominates the linearly presented material of this section, disguised in the first hexachordal structures of the piccolo/clarinet line (Theme I-D3 in Ex. 6).³¹ In the third part of the Development (mm. 145-161) Schoenberg presents the retrograde version of the piccolo clarinet theme (Theme I-D3), this time shared between the piccolo, flute and the solo violin. This retrograde writing emphasizes the 4-2 tetrachords at the end of the phrase, in order to prepare the ground for the return of the 4-3 tetrachord.

It has been more than sixty measures since the 4-3 was last hinted at (mm. 119-121) and eighty since the beginning of the Development (m. 93). Its absence is “engineered” in the Retransition too, where Schoenberg disguises its aural perception by distributing the tetrachord’s semitones diagonally between the violins and the trumpets (mm. 162-165). In the Recapitulation, Schoenberg allows the hexachordal structures of Theme I-1b and Theme I-1d to dominate between mm. 166-181, creating a colossal collision of these two opposing forces when the 4-3

²⁹ Schoenberg, *The Musical Idea*, 277.

³⁰ The 4-14 comprises the beginning of the Hauptstimme line in the violins (mm. 93–94), the secondary line of the basses and the bassoons (mm. 95–96), as well as the accented solo violin pitches at mm. 100–102.

³¹ According to Allen Forte’s set-theory the two tetrachords are in R1 relationship: maximum similarity with respect to interval class with interchangeable features. See Forte, *The Structure of Atonal Music*, 48–49. The dominant presence of the 4-2 is reminded again during mm. 135–137 in the piccolo and xylophone lines: p.c. B-A-C#-A#, A-F#-B“-A”.

returns at m. 185 and mm. 195-197. In these two places, the use of accented successive half notes, accented eighth notes and the high register reached, especially at m. 197, proclaim the emphasis on the intervallic content of 4-3, which in turn appears as having won the power struggle. As a result, motive Xo has returned to its semitone-fourth content (m. 191, solo violin D-C#-G#) and can now be heard in the solo line (mm. 192-194) and in the wood winds and strings (mm. 195-196).

After the climax, and after a long appeasement of the intensity, the 4-3 tetrachord appears in the Cadenza. Under the light of the concept of the problem, this section can now be understood as the contest between the hexachordal structure of Theme I-1d and the tetrachordal structures alluded to in the *Presto-Lento* exchanges. After working through the D[♭]-G[♭] motive, the music starts projecting tetrachords within hexachordal structures. In the first *Presto-Lento-Presto* note, it is the G[♭]-D[♭]-G-D and F[♭]-B[♭]-C[♭]-F tetrachords that create a further set of C-A-E[♭]-G#. ³² The final *Lento* gesture of the Cadenza is the first gesture where these two forces amalgamate, through a concurrent presentation of the 4-3 in P-8 and the two hexachords of I-8 row forms (Ex. 10).

The next violin entry at m. 234 inaugurates the first use of the P-11/I-9 pair, which underlines the fact that it projects entirely new thematic tetrachordal content (C#-B-B[♭]-F or a 4-Z29), but in a familiar partition. ³³ This point is identified as the nexus point by Andrew Mead because P-11 relates P-0 and P-3 rows through the {1,4,7,10} and {1,2,7,8} partitioning that yields the 4-3 tetrachord that the solo violin outlines at mm. 1, 52 and 188. ³⁴ In view of this analysis, mm. 234-241 signify how a tetrachordal formation is once again drawn into the 4-3 tetrachord: m. 238 D[♭]-F-E-D {3,6,9,12} from R-5 (Violins I), m. 240 D-E-F-D[♭] {1,4,7,10} from P-5 (Violins I).

At the only *Largo* section of the movement, the music briefly returns to hexachordal partitioning (mm. 241-242). The solo violin's part creates another small climax and converts the intense double stopping in four-part chords that conceal the tetrachordal forces of the problem. Schoenberg uses the retrograde version of motive Xo at the end of the Exposition (G-C-A) that now becomes (A-C-G) and is succumbed to a significant elongation that not only stretches its intervallic span over an octave, but also transforms it to a pentachord (m. 244). Here, each note is accompanied by a chord, evoking a cumbersome character that in turn reflects the complexity of the two-fold variation of the motive.

The resolution of the two opposing forces occurs at the beginning of the Coda, m. 249. This is the first time the 4-3 tetrachord, in a concurrent appearance in the solo violin part, subjects motive Xo to an intervallic span of its interval vector (highlighted in Example 14). In other words, motive Xo only projects minor/major seconds and minor thirds. ³⁵ This reduction of intervallic content propels the incessant forward movement that encourages the poco stringendo and stretto indications on the score.

³² David Lewin has analyzed extensively the beginning of the Cadenza. He examines how the above tetrachords, and further pentachords or dyads projected in the texture link the rows P-5, P-3, I-3, RI-3 and I-11. This is done by tracing the common pitch classes, usually adjacent, within the above rows through nesting maps or what he calls segmental association. While his analysis focuses on how these sets create "structural harmonies", my analysis traces the hexachordal versus tetrachordal friction. I also believe that the partitioning identified here reflects more accurately the aural effect of the registral and rhythmic separation of the pitch classes. See David Lewin, "A Theory of Segmental Association in Twelve-Tone Music," *Perspectives of New Music* 1, no. 1 (1962): 109.

³³ Lewin relates this point to the {1,4,7,10} partitioning of Theme I-2a at m. 52 (see *ibid.* 104).

³⁴ Mead does not use the Forte identification system, but here it serves the purpose of keeping the consistency of thought with the text. He also identifies motivic reasons as to why it is the nexus point. See Mead, "Large-Scale Strategy," 35-36.

³⁵ There are only two instances where the interval span increases, but crucially it includes the inverted interval of a seventh (see the viola and cello parts at m. 252).

Example 14 – *The Beginning of the Resolution*

The musical score for Example 14, 'The Beginning of the Resolution', is presented in 4/4 time. It features five staves: Solo Violin (S. VL), Violin I (VL I), Violin II (VL II), Viola (VLA), and Violoncello (VLC). The score is marked with dynamics such as *f* and *P-0*, and includes performance instructions like *PIZZ.* and *ARCO*. A blue box highlights a section from measure 249 to 258, and a white box labeled 'Motive X' points to measure 253. Fingerings and bowings are indicated with numbers and letters above the notes.

After this point the solo violin line is organized in tetrachordal formations, emphasizing the 4-3 tetrachord, especially at mm. 257-258. The final cry for resolution is depicted in the *feroce* ascending gesture of the solo violin at mm. 261-262. An angular retrograde version of I-5 row form climbs almost four octaves, leaving an angry and questioning gesture hanging in the air and in search for closure.

Finally, one of the opposing forces prevails. In the last three measures of the Concerto (Ex. 15, mm. 263-265) the music succumbs to the 4-3 tetrachord and motive Y, presented by the solo violin and violas. This is achieved by neutralizing the pervasive motive X₀, stated in the timpani, cellos and basses, through the removal of its intervallic pattern. The only momentum detected is that of motive Y in the form of the 4-3 tetrachord. Notice how Schoenberg emphasizes the initial partitioning too, by creating 4-13 and 4-14 tetrachords. The emphasis is even stronger when we consider that this time the tetrachords arise from a completely novel order number, {3,10,11,12} and {2,4,6,8} respectively.

Example 15 – *The content of 4-3 prevails*

The merging of motives X0 into motive Y and the prevailing of the intervallic content of the 4-3 tetrachord and its partitioning, offer the key to how Schoenberg brings equilibrium to the centrifugal forces of the thematic material. The function of the Coda resembles the balancing process that Schoenberg describes in his most coherent description of what the function of the Idea is:

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 or 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.³⁶

The balance achieved in the last three measures can also be felt from my very own performer's perspective. The physical exhaustion experienced after the Cadenza (mm. 235-246) due to incessant chord playing, is followed by a frenetic rush in the Coda (mm. 247-258), which after a 'cry

36 Schoenberg, *Style and Idea*, 123.

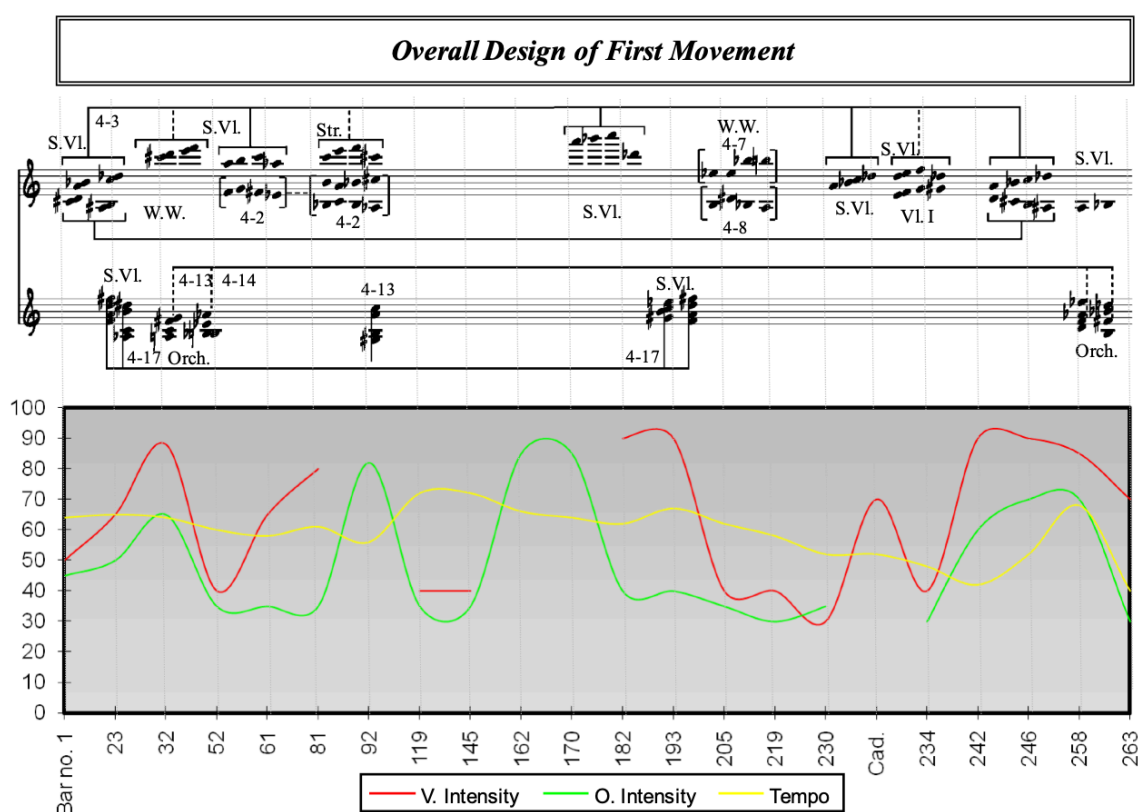
for resolution' (*feroce* gesture at m. 261) truly resolves in the final three measures.³⁷ Analytical insight and performing experience arrive at the same conclusion.

The Performance Plan

If the 4-3 expresses the Idea in the notation of the Concerto can a performer gain anything from it? Systematic mapping of the tetrachord's transformations helps delineate large-scale sections of the piece, according to its variations. The degree of the tetrachord's projection in the texture can also reveal the teleological aspect of these sections and inform the player of their overall shape or direction. The unique aspect of the first movement is that Schoenberg uses the 4-3 or its variants in all the climaxes. If the performer compliments the tetrachords 'journey' with a graphic presentation of dynamics and tempo, a comprehensive understanding of how the movement evolves arises.

To this end, a two-tiered graph has been formulated (see Graph A). The top part presents the notational outline of the 4-3 tetrachord with the occasional inclusion of other pitch class sets that appear prominently in the texture. The top stave contains the linear appearances of these tetrachords, while the bottom displays pitch class sets appearing as simultaneities or the harmonic dimension of the music. Any connection emanating from the exact mapping of identical pitch class content is shown with a solid line. Accordingly, connections with identical tetrachords but with different pitch class content are indicated with a dotted line.

Graph A – Overall Shape of the First Movement



³⁷ The author's performing experience is based on his performances of the Concerto at Sounds New Festival on the 8 May 2010, at Canterbury Christ Church University on 20 September 2011 and at the Schoenberg at 140 Conference at CCCU on the 13 September 2014.

The second part of the graph demonstrates the evolution of the intensity of sound or dynamics and the tempo. The red line represents the solo violin's intensity, the green the orchestral intensity and the yellow³⁸ represents the tempo changes. To calculate the intensity, the dynamic scale has been attributed values from 10 to 100 and therefore dynamic levels from *pppp* to *fff* has been related to a certain number (see Ex. 16). To gain the average dynamic at a given moment the following process has been used: first, the values of the dynamics marked in the score are added together in order to gain the total value of the whole dynamic level produced; then, this total is divided by the number of dynamics present at that moment, in order to give an average measurement.³⁹

Example 16 – Ratio of dynamics and value axis figure

<i>Ratio of dynamics and value axis figures</i>			
<i>pppp</i>	10	<i>mf</i>	60
<i>ppp</i>	20	<i>f</i>	70
<i>pp</i>	30	<i>piu f</i>	80
<i>p</i>	40	<i>ff</i>	90
<i>mp</i>	50	<i>fff</i>	100

When one consults Graph A, it is obvious that in terms of dynamics the longest and most prominent climax occurs in the middle, at mm. 162-187. In the Concerto these measures represent the Retransition and the beginning of the Recapitulation. As identified above (see p. 6) this is the moment when the tetrachordal and hexachordal forces clash. In terms of quantitative data, this is the only section of the movement where the orchestra (the green line) retains dynamics at the value of 85, the average value of a *fortissimo* and *forte* dynamics, for 21 measures. Also, it is the only climax where the peak stretches to five measures (mm. 182-187) and includes the longest preparation (mm. 170-181).⁴⁰

The peak in dynamics, however, is not reflected in the tempo line at this point (see yellow line). Instead, the tempo drops continuously from m. 93, the start of the Development section, until after the Cadenza at m. 242. At m. 93 the tempo is indicated as ♩ =72, while at m. 160 it is ♩.

38 The yellow line has been calculated according to the manifold tempo markings appearing on the score. In places where there are absent, and a change of speed is indicated by musical terms only, the author has exercised his own understanding of the tempo gradation.

39 Distinctive timbres such as piccolo clarinet or tuba were given slightly higher figures to reflect their poignancy. Whenever the dynamics of the solo violin and the orchestra coincides, the former has been given a higher value, since the solo violin usually projects over the orchestral sound. Also, the category axis does not always progress in equal values, since the appearance of tetrachords does not always regularly occur.

40 The first climax occurs at the end of the transition (mm. 51-52) with a build up for six measures (mm. 45-50), the second at the end of the Exposition (m. 92) and a preparation of two measures (mm. 90-91), the third at the Development (mm. 116-118) with a preparation of five measures (mm. 111-115), while the last one after the cadenza stretches over three measures (mm. 241-242) and includes a preparation of three measures (mm. 238-240).

=60. Although the Recapitulation tempo marking at m. 170 is higher at $\downarrow = 64$, it is crucial to point out that the 2/2 half-note pulse—in contrast to the 3/4 before—slows down the tempo.⁴¹

Musically, this change of pulse creates a stop-and-start sensation that intensifies the music further. The way the music is written reflects Schoenberg's own music making, which according to Steuermann "it was primarily the character of his tempo, especially his ability to make the music move and stand still at the same time, which I will never forget".⁴²

From the Retransition onward (mm. 162-169), Schoenberg propels the music forward with the emphatic reintroduction of motive Y (mm. 162-165) and the rise of the second symmetrical phrase of Theme I-1b (mm. 166-169) a minor third. At the Recapitulation (m. 170), after successive variants of motive X_o and motive Y, Schoenberg sets the ground for further intensity through the use of Theme I-1d and its continuous rise of starting pitch: measure 175-176 the horns and trumpets start in G₄ and A#₄ respectively, m. 178 the woodwinds and the xylophone commence on G₅ that shifts to an even higher C₆ (m. 179) and finally the first and second violins start on D₆ in order to prepare the *pesante* entrance of the solo violin that culminates this ascent at an A₆ (m. 182).

The advantage of the graphic representation is that it can reveal the opposing forces of tempo and dynamics. It is precisely this tension of rising pitch level and dynamics against the overarching reduction of tempo across the Retransition and the Recapitulation that creates the explosive energy of the solo violin's entry (m. 182). The graphic analysis can be used to translate analytical information into performing instructions: if the solo violin player translates the *pesante* indication (m. 182) as a hold-back in tempo, the violin entry sounds as the culmination of this long climactic preparation.

Through the graph, the shape and the function of the music after this climax become clear, indicating a large reduction of tempo until the Cadenza and a gradual removal of the 4-3 tetrachord from the texture. The graph spells out three temporal zones: first the *Tranquillo* section (mm. 205-211), then the bridge indicated by *poco meno mosso* (mm. 212-219) and finally the extended Closing Theme indicated through *molto meno mosso* (mm. 220-229). After the Cadenza, the music regains momentum in order to introduce the Coda that finalizes the opposing forces of the movement.

A direct consequence of the overall declining tempo after the climax is that both the conductor and soloist have to drive the preceding music to this point. The deciding point is the Bridge Passage (mm. 73-75) between the second and third subjects of the Exposition that stems from a discrepancy between the manuscript and the printed scores of the Concerto. In the manuscript, at m. 73 (see Illustration 1) Schoenberg appears to have initially inscribed the indication *Tempo Imo* (Mf 1691), an instruction that was altered to just *Tempo* sign in the Schirmer and the critical edition, in order to indicate the end of the previous *poco rit.* sign (mm. 71-72).⁴³ However, if the performer follows the *Tempo Imo* indication, that suggests the return to the opening speed $\downarrow = 64$, then the *Poco Meno Vivace* indication of the Closing Theme (ThI-3) will translate into a speed slightly under the opening tempo. The Closing Theme will not be too slow and will relate to the faster tempo of the Development. Consequently, the faster the tempo at the Development is the easier it is to pace the long speed reduction after the Recapitulation.

41 The tempo reduction is more evident if the figures are translated in quarter note beats: Development at $\frac{3}{4} = 226$, Retransition at $\frac{3}{4} = 180$ and finally Recapitulation at $\frac{3}{4} = 128$.

42 Gunther Schuller and Eduard Steuermann, "A Conversation with Steuermann," *Perspectives of New Music* 3, no. 1 (1964): 22–35, 26.

43 Compare Arnold Schoenberg, *Mf 1691: Facsimile of the Manuscript*, Vienna: Arnold Schönberg Centre, 1934; Arnold Schoenberg, Josef Rufer et. al. *Sämtliche Werke Abt. IV, Orchesterwerke, Bd. 15, Reihe A, Concerto for Orchestra, Op. 36, Concerto for piano & orchestra, Op. 42*. Mainz: Schott, Vienna: Universal Edition, 1975.

Illustration 1 - From the manuscript page Mfl 1691.2, first movement (mm. 66–75)

This discrepancy in the sources of the score is minor. But the implication of picking up the initial speed as suggested by *Tempo Imo*, and only adjusting to a steady speed as suggested by *Tempo*, is quite significant. In other words, by following this specific *Tempo Imo* instruction from the manuscript we can ‘unlock’ the overall performance plan that can organize such a complex and extended first movement.

In conclusion, this paper has demonstrated how the concept of the Idea in Schoenberg’s music has united analytical understanding and performance. The unifying force of the 4-3 at the motivic, thematic and background levels. The trajectory of the opposing thematic forces identified as the problem and the inclusion of graphic analysis have enhanced the understanding of the first movement of Schoenberg’s Violin Concerto. The search for the materialization and function of the Idea has meaningfully been translated into clear and committed performing instructions.

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