Examining Stratification and its Temporal Implications in Three Compositions by Igor Stravinsky

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Abstract

Igor Stravinsky (1882-1971)'s compositions have traditionally been regarded as paradigms of discontinuity. Numerous musicologists have highlighted the prevalence of contrasting musical materials in Stravinsky's works, rather than consistency or a continuous, homogeneous flow. Consequently, the achievement of coherence and the opposing forces that introduce discontinuity in music have emerged as central concerns both within Stravinsky's compositions and in the scholarly discourse surrounding his oeuvre.

Yet Edward T. Cone's analysis within "Stravinsky: The Progress of a Method" catalysed a significant shift in the perspectives and analytical approaches employed when studying Stravinsky's compositions. Cone utilised the concept of stratification to elucidate how musical processes, which appear independent, ultimately intersect and coalesce. Different specialists resonated with and supported this idea.

Progressing from Cone's analysis, this study explores more instances of stratification and attempts to link this compositional approach to Stravinsky's aesthetic conceptualisation of temporal phenomena. All seemingly discontinuous and independent melodic material in his works actually adheres to the sPirit of ontological time, or unity. That is to say, the melodies that initially appear to be discrete and situated within distinct sections are in fact interconnected, demonstrating a considerable degree of similarity and cohesion as a unified whole.

This article's three case studies, which examine *L'Histoire du Soldat* (1918), Symphony in C (1938-40) and Symphony in Three Movements (1945), reveal that stratification is clearly evident in the compositional process underpinning Stravinsky's music. These pieces range from smaller ensemble combinations to large-scale orchestration and span from his early works to his neo-classical period.

They demonstrate the multitude of structural layers that encapsulate both horizontal unity and vertical diversity.

Keywords: Stravinsky, Stratification, Ontological Time, *L'Histoire du Soldat* (1918), Symphony in C (1938-40), and Symphony in Three Movements (1945)



Introduction

Igor Stravinsky (1882-1971)'s compositions, including the well-known work *Symphonies of Wind Instruments*, have traditionally been regarded as paradigms of discontinuity¹. For example, Joseph N. Straus argues that establishing connectedness and continuity is significantly challenging when analysing Stravinsky's compositions, as they exhibit pervasive discontinuity on multiple levels. His works abound with contrasting musical materials rather than an uninterrupted, homogeneous flow, presenting a surface replete with abrupt transitions. Consequently, establishing coherence emerges as a central concern both within Stravinsky's music and in scholarly studies devoted to his oeuvre².

However, following Edward T. Cone's analysis of *Symphonies of Wind Instruments* in his 1962 article "Stravinsky: The Progress of a Method," scholars have viewed the discontinuity present in Stravinsky's music as a deliberate stylistic choice rather than an obstacle to analysis³. Cone's analysis of this work catalysed a significant shift in the perspectives and analytical approaches employed when studying Stravinsky's compositions. In Cone's interpretation, the *Symphonies* are structured around principles of stratification, interlocking, and synthesis, where seemingly independent musical events ultimately intersect and coalesce.

Insights by Jonathan D. Kramer and Pieter C. van den Toorn offer a comparable consensus to the previous perspective. According to Kramer's analysis, the *Symphonies of Wind Instruments* exhibits multiple temporal structures operating across various levels, suggesting that underlying continuities can be discerned beneath the surface. On the other hand, Kramer introduces the concept of 'moment form' in his analysis, contending that the fragmentation of the music into isolated, static segments

fundamentally disrupts any semblance of musical continuity within the composition⁴.

With this previous scholarship in mind, this study explores two primary topics in depth. Firstly, it examines how Stravinsky's compositional approach of stratification, or even interlocking, is intrinsically linked to his aesthetic and philosophical conceptualisation of time, particularly ontological time. Despite the presence of numerous fragmented and ostensibly disparate melodies in his works, these elements ultimately converge, coalesce, and interact. They can be perceived as a cohesive whole. These concepts emanate from an emphasis on unity in ontological time. Consequently, this study investigates the temporal ideals underlying Stravinsky's compositional techniques prior to engaging in musical analysis. Secondly, while previous scholars have conducted extensive analyses of stratification, this analysis aims to augment existing research and uncover additional examples of this technique. In doing so, it demonstrates that this conceptual framework permeates a broader range of works than previously recognised, revealing the multifaceted structures inherent in Stravinsky's musical compositions.

Numerous musicologists and theorists, including Alexander Rehding, Joseph N. Straus, and Jonathan D. Kramer, among others, have highlighted the composer's tendency towards discontinuity in their seminal scholarly articles. See Alexander Rehding, "Towards A 'Logic of Discontinuity' in Stravinsky's 'Symphonies of Wind Instruments': Hasty, Kramer and Straus Reconsidered," *Music Analysis* 17, no. 1 (1998): 39-65; Joseph N. Straus, "The Problem of Coherence in Stravinsky's Sérénade en la," *Theory and Practice* 12, (1987):3-10; Jonathan D. Kramer, "Discontinuity and Proportion in the Music of Stravinsky" in Confronting Stravinsky: Man, Musician and Modernist, ed. Jann Pasler (Berkeley: University of California Press, 1986), 174-194. Moreover, Marianne Kielian-Gilbert investigates this compositional approach as well in her publication, see Marianne Kielian-Gilbert, "Stravinsky's Contrasts: Contradiction and Discontinuity in His Neoclassic Music," *The Journal of Musicology* 9, no. 4 (1991): 448-480.

^{2.} Straus, "The Problem of Coherence in Stravinsky's Sérénade en la," 3.

Edward T. Cone, "Stravinsky: The Progress of a Method," in *Perspectives on Schoenberg and Stravinsky*, ed. Benjamin Boretz and Edward T. Cone (Princeton: Princeton University Press, 2015), 156-164.

Jonathan D. Kramer, "Moment Form in Twentieth-Century Music," *Musical Quarterly* 64, no. 2 (1978): 177-194. The concept of 'moment form' is also given a detailed discussion in his classic publication. See Jonathan D. Kramer, *The Time of Music: New Meanings, New Temporalities, New Listening Strategies* (New York: Schirmer Books, 1988), 201-285.

Ontological Time and its Philosophical Aesthetics in Stravinsky's Own Words⁵

To understand Stravinsky's compositional techniques, it is useful to draw on his ideas about music expressed in his many publications, talks, and diaries of the time. The following section first investigates Stravinsky's temporal aesthetics and compositional logic by examining his own verbal accounts, demonstrating how his perspective on time is utilised in his symphonic works and various compositions. These materials come from publications including *Poetics of Music in the Form of Six Lessons* ⁶, *Conversations with Igor Stravinsky* ⁷, *Expositions and Developments* ⁸, *Themes and Conclusions* ⁹, *Dialogues and a Diary* ¹⁰, and three volumes of *Stravinsky: Selected Correspondence* ¹¹.

Some significant viewpoints on time (Stravinsky sometimes uses 'chronos of time' or 'chrononomy,' which appears to be contemporary neologisms) are found in the second chapter, "The Phenomenon of Music," of *Poetics of Music in the Form of Six Lessons*. Stravinsky illustrates the 'chronos of music' by drawing on the work of his friend, the philosopher Pierre Souvtchinsky (1892-1985), to explain his perspective on temporality. Stravinsky most often references the article "La notion du temps et la musique¹² (The Concept of Time and Music, 1939)". Here, Souvtchinsky proposed two kinds of temporal notions in music. One, Stravinsky explains, is music that engages with the process of ontological time, namely 'dynamic calm,' since this notion of time creates a sense of euphoria between composer and listener¹³. Souvtchinsky specifically states that ontological time progresses uniformly

throughout musical duration. In its primary creative basis, chronometric music is characterised by the absence of emotional and psychological reflexes, which allows it to grasp and penetrate the process of ontological time. This kind of music has a notion of balance, dynamic order, and normal and graduated development. It evokes a particular feeling of dynamic calm (calme dynamique) and satisfaction¹⁴.

The other temporal notion in music corresponds with psychological time. This kind of music actively evolves and has a strong vitality, dislocating its tonal centre and creating an unstable situation. It is particularly adaptable for conveying the expression of the composer¹⁵. Stravinsky continues to borrow Souvtchinsky's temporal concepts to discuss the importance of these two temporal notions. The concept of similarity is often the driving force behind ontologically based music composition and performance, whereas music that corresponds to psychological time favours contrasting progressions, aligning precisely with the philosophical concepts of unity and variety¹⁶.

As Richard Taruskin notes in his 1996 book *Stravinsky and the Russian Traditions*, Souvtchinsky's concept of temporality drew substantially on the French philosopher Henri Bergson's (1859-1941) ideas¹⁷. Even though Souvtchinsky's aforementioned article was not published until 1939, it is likely that Stravinsky was introduced to Bergson's notions through Souvtchinsky even earlier. After all, Taruskin points out that Stravinsky and Souvtchinsky were friends in Berlin by 1922, and Souvtchinsky published an essay in 1917 that expressed a familiarity with and acceptance of Bergson's views ¹⁸. It is a plausible assumption that Stravinsky was indirectly introduced to Bergson's philosophies through his friendship with Souvtchinsky sometime during the 1920s. With this in mind, understanding Stravinsky's temporal aesthetics requires not only grasping the two temporal characteristics proposed by Souvtchinsky, but also comprehending Bergson's concept of time, as these are two key sources of Stravinsky's temporal aesthetics.

^{5.} The section addressing the explosion of philosophical temporality in Stravinsky's documents is derived from my unpublished Master of Science by Research (MScR) projects, completed at the University of Edinburgh. Subsequently, some materials were adapted and presented as a conference paper at the 2023 Música Analítica conference, hosted by the Centre for Interdisciplinary Studies at the Universidade de Coimbra, Portugal. This section has undergone minor editorial modifications from its original texts.

Igor Stravinsky, Poetics of Music in the Form of Six Lessons, trans. Arthur Knodell and Ingolf Dahl (Cambridge, MA: Harvard University Press, 1947).

^{7.} Igor Stravinsky and Robert Craft, Conversations with Igor Stravinsky (New York: Doubleday & Company, 1959).

^{8.} Igor Stravinsky and Robert Craft, *Expositions and Developments* (London: Faber & Faber, 1962; Berkeley: University of California Press, reprint 2020).

^{9.} Igor Stravinsky, Themes and Conclusions (London: Faber & Faber, 1972).

Igor Stravinsky and Robert Craft, Dialogues and a Diary (New York: Doubleday and Company, Inc., 1963 First Edition; London: Faber & Faber, 1968).

^{11.} Igor Stravinsky and Robert Craft, Selected Correspondence Volume I, Edited and with Commentaries by Robert Craft (London: Faber & Faber, 1982); Igor Stravinsky and Robert Craft, Selected Correspondence Volume II, Edited and with Commentaries by Robert Craft (London: Faber & Faber, 1984); Igor Stravinsky and Robert Craft, Selected Correspondence Volume III, Edited and with Commentaries by Robert Craft (London: Faber & Faber, 1985).

Pierre Souvtchinsky, "La notion du temps et la musique (The Concept of Time and Music)," Revue musicale (1939): 70-80.

^{13.} Igor Stravinsky, "The Phenomenon of Music" in Poetics of Music in the Form of Six Lessons, 31.

^{14.} Souvtchinsky, "La notion du temps et la musique," 73.

^{15.} Stravinsky, Poetics of Music in the Form of Six Lessons, 31.

^{16.} Ibid., 31.

^{17.} Richard Taruskin, *Stravinsky and the Russian Traditions: A Biography of the Works through Mavra*. Volume 2. (Berkeley: University of California Press, 1996), 1125.

^{18.} Ibid., 1126.

Bergson's philosophic thought was a major influence on conceptions of musical time in the late 19th and early 20th centuries¹⁹. In the second chapter of his doctoral dissertation, *Time and Free Will*, "The Multiplicity of Conscious States, The Idea of Duration," Bergson identifies two different concepts of time: objective time ('spatial time/*le temps espace*,' or measurable time) and subjective time²⁰ (Bergson defines this as 'duration/*la durée*' or 'lived time'). Objective time is the time that is represented by clocks, calendars, and scientific measurements. This time is treated as a uniform and homogeneous entity that can be divided into discrete units and used to measure the duration of events. It is seen as a constant and unchanging background against which events occur.

The concept of *la durée* explores time as it experienced by the individual. It is the time that is perceived as a continuous flow of consciousness and is intimately connected to the workings of the human mind. This time is subjective, as it is not a uniform and measurable phenomenon but is instead characterised by the unique qualities and rhythms of each individual's experience²¹. As Bergson explains, "Duration therefore implies consciousness; and we place consciousness at the heart of things for the very reason that we credit them with a time that endures²²." Additionally, Bergson points out that, "Real duration is experienced; we learn that time unfolds and, moreover, that we are unable to measure it without converting it into space and without assuming all we know of it to be unfolded²³."

Although the term objective time is not mentioned directly in Bergson's different publications, Bergson emphasises the unmeasurable nature of time through the concept of *la durée*, which in turn highlights the opposing temporal concept of objective time. Objective time is often contrasted with subjective time, which is frequently discussed in relevant literatures²⁴.

 Leonard Lawlor and Valentine Moulard-Leonard, "Henri Bergson," The Stanford Encyclopedia of Philosophy, May 18, 2004; substantive revision July 3, 2021. Edward N. Zalta and Uri Nodelman (eds.). https://plato.stanford.edu/entries/bergson/. When discussing Souvtchinsky's temporal frame, Stravinsky clearly describes a philosophy of time that connects to Bergson's concept of *la durée*:

Everyone knows that time passes at a rate which varies according to the inner dispositions of the subject and to the events that come to affect his consciousness. Expectation, boredom, anguish, pleasure and pain, contemplation - all of these thus come to appear as different categories in the midst of which our life unfolds, and each of these determines a special psychological process, a particular tempo. These variations in psychological time are perceptible only as they are related to the primary sensation - whether conscious or unconscious - of real time, ontological time.

Stravinsky's concept of temporality, particularly when describing psychological time, has a close relationship to Bergson's ideas. There are two aspects that link Souvtchinsky and Bergson's ideas of temporality more closely. First, both mention that each individual's perception of time is different. For Bergson, the pace of *la durée* is also related to human agency, which is constantly modified by subjective memories of the past and anticipations of the future. Stravinsky's reference to Souvtchinsky's discourse is based on the same thought that the pace at which time passes varies according to the subject's inner inclinations and events that impact their awareness. Secondly, both figures introduce two faces of temporality and explore their different feelings. Nevertheless, there is one crucial distinction here: whereas Bergson emphasises subjective time as more primordial, Stravinsky reverses the importance of the two, favouring objective time. The two concepts of temporality that Stravinsky borrowed from Souvtchinsky, ontological time and psychological time, and the source of these concepts, Bergson's philosophies on measurable time and *la durée*, have the same core with different valuations. Both Souvtchinsky and Bergson provide context for Stravinsky's temporal aesthetics.

However, after exploring these two types of temporalities, Stravinsky expresses that he is more inclined to articulate ontological time within his compositions. He not only ties similarity to ontological time, but also states that he favours this kind of similarity:

^{20.} Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, trans. F. L. Pogson (Mineola, NY: Dover, 2001).

^{21.} Bergson, *Time and Free Will*, 100-107. Regarding detailed description of pure duration, or even a definition, see the specific paragraph: "Mistake of the attempt to derive relations of extensity from those of succession. The conception of pure duration" and "Pure duration is wholly qualitative. It cannot be measured unless symbolically represented in space".

^{22.} Henri Bergson, *Duration and Simultaneity: Bergson and the Einsteinian Universe*, trans. Mark Lewis and Robin Durie (Manchester: Clinamen, 1999), 33.

^{23.} Bergson, Duration and Simultaneity, 43.

^{24.} For example, see David Scott, "The "concept of time" and the "being of the clock": Bergson, Einstein, Heidegger, and the interrogation of the temporality of modernism," *Continental Philosophy Review* 39 (2006): 183-213.

^{25.} Stravinsky, Poetics of Music in the Form of Six Lessons, 30.

For myself, I have always considered that in general it is more satisfactory to proceed by similarity [ontological time] rather than by contrast [psychological time]. Music thus gains strength in the measure that it does not succumb to the seductions of variety. What it loses in questionable riches it gains in true solidity²⁶.

He continues to explain his thoughts about the relationship between ontological time and psychological time:

Contrast produces an immediate effect. Similarity satisfies us only in the long run. Contrast is an element of variety, but it divides our attention. Similarity is born of a striving for unity. The need to seek variety is perfectly legitimate, but we should not forget that the One precedes the Many. Moreover, the coexistence of both is constantly necessary [...]²⁷

Stravinsky emphasises the concept of 'ontological time (similarity)' to highlight the deeper, more profound impact of similarity in music compared to contrast. Whilst contrast provides immediate gratification and variety, Stravinsky argues that similarity builds a sense of unity and cohesion over time. He suggests that this unity is more fundamental and satisfying in the long run, as it aligns with the primordial nature of oneness ("the One precedes the Many"). Stravinsky acknowledges the value of variety but stresses that the underlying unity created by similarity is essential for a truly fulfilling musical experience. This perspective reflects his belief in the importance of structure and coherence in composition, where similarities create a sense of timelessness and continuity that resonates more deeply with listeners.

Compositional Techniques Within the Framework of Temporal Implications

Stravinsky continues to explain his aesthetics, and thereby his compositional process, in more detail. He mentions that everything in the world has a base unit that can generate numerous content; this idea relates to his development of a motivic figure (or the composition of a melody line) within his compositions. Stravinsky initially regards the base unit as an intervallic figure, utilising this short figure to compose a varied melody line that appears throughout the piece, aligning with the notion that

"the One precedes the Many²⁸." In order to reduce the effect of strong contrast, the melodic contours are often similar. From the smallest cell to the longer melodic lines, there is a high degree of similarity, which likely inspired criticisms about his "refusal to develop during the process of music" and "mindless repetition²⁹." In addition, Stravinsky stresses that the temporal features of similarity and variety are both necessary for music, but he prefers similarity. This concept of composition echoes a key issue being discussed in academia: varied repetition. Simply put, as Stravinsky develops his motive, he begins with a simple line and then proceeds to state the segment repeatedly, applying many subtle variations while maintaining a high level of repetition. All these compositional phenomena are concretely displayed in the three case studies analysed in this article.

Fortunately, we can continue to examine Stravinsky's own introspections about compositional concepts related to temporality in *Dialogues and A Diary*, documented by both Robert Craft and Stravinsky himself. Craft makes an important observation at the beginning of this book that guides the discussion throughout his writing:

Stravinsky's compositional procedures seem not to have changed in late years. He almost always begins with a melodic idea, which in the first writing may be expressed only by its rhythmic values. He will often compose this single line, in isolation it seems, to a point where larger shapes become clear to him³⁰.

This observation reflects Stravinsky's aesthetics on composition and his ideas about temporality. From a compositional viewpoint, Stravinsky initially tends to conceive a short piece of material, develop this material, and then expand it into a melodic fragment. Furthermore, this observation demonstrates significant congruence with the analytical findings presented subsequently in this article: a concise motivic figure that subsequently evolves into melodies of varying lengths, or the development of the most minute figure into an identical unit.

^{26.} Ibid., 31-32.

^{27.} Ibid., 32.

^{8.} Regarding this compositional technique, for instance, developing a short figure into numerous similar melodies that appear throughout the piece, such logic inevitably reminds us of Stravinsky's assertion in *Poetics of Music in the Form of Six Lessons* that seeking variety in many things is quite acceptable, but "the One precedes the Many" remains his core idea. See footnote 27 in this article.

^{29.} Joseph N. Straus, "Stravinsky's Aesthetics of Disability," in *Broken Beauty: Musical Modernism and the Representation of Disability* (New York: Oxford University Press, 2018), 80.

^{30.} Igor Stravinsky and Robert Craft, *Dialogues and a Diary*, 15. This publication has undergone multiple iterations. The 1963 edition (first edition) lacked an introduction by Craft. The quotation in question is from the 1968 version, which incorporated Craft's additions. Consequently, it is important to examine the introduction of this later edition.

To illustrate his compositional process, Stravinsky explains the initiation of a composition, specifically delineating the general approach to a symphonic work:

Robert Craft: The musical idea: when do you recognize it as an idea?

Igor Stravinsky: When something in my nature is satisfied by some aspect of an auditive shape. But long before ideas are born, I begin work by relating intervals rhythmically. This exploration of possibilities is always conducted at the piano. Only after I have established my melodic or harmonic relationships do I pass to composition. Composition is a later expansion and organization of material

Robert Craft: Is it always clear in your mind from the inception of the idea what form of composition will develop? And the idea itself: is it clear what instrumental sound will produce it?

Igor Stravinsky: You should not suppose that once the musical idea is in your mind you will see more or less distinctly the form your composition may evolve. Nor will the sound (timbre) always be present. But if the musical idea is merely a group of notes, a motive coming suddenly to your mind, it very often comes together with its sound³¹.

Intervallic shape is a crucial starting point for his composition. This excerpt clarifies content previously mentioned: Stravinsky initially determines intervallic figures as the main material for composition. Although Stravinsky does not provide a more detailed explanation regarding the initial idea that sparks his composition, such as whether it is more focused on intervals or rhythm, it can be seen as a combination of rhythm and the germ of a melodic cell. This initial idea is like a small-scale entity, akin to a 'molecular' unit. After establishing these creative materials, he starts to expand and unfold them into a segment (sub-phrase), phrase, or part (period). Variation on the smallest unit and expansion of initial material are core ideas in his works.

At the beginning of the analysis for each of the three pieces explored in this article, the main theme is presented to illustrate the composition's most distinctive intervallic contour. This approach provides a clear depiction of Stravinsky's architectural methodology, spanning from small ensemble to orchestral works. The initial minimalist musical elements are subsequently expanded by Stravinsky into a series

of notes (whether through accidentals, intervals, or rhythmically). These horizontally expansions then serve as his fundamental building materials. Moreover, regardless of each melody's location within the musical progression, it maintains a robust connection to the others, as all melodic material is derived from the same conceptual source. This exemplifies the principles of unity and similarity operating within the framework of an ontological sPirit.

By examining Stravinsky's own accounts, which explain how temporality relates to his compositional approach, it becomes evident why certain theorists argue that the material in his music, while seemingly disparate, can actually be perceived as interconnected. This interconnectedness stems from Stravinsky's compositional ideology, which adheres to the temporal implications of an *ontological* ethos, emphasising unity. A single composition is not confined to one primary theme; rather, as diverse materials emerge throughout the musical process (e.g. secondary themes, minimal transitions, and other distinct melodies), the development of cellular elements follows a consistent compositional approach. This approach extends not only horizontally but also vertically, establishing stratification within the musical process, analogous to what Cone identifies as Stravinsky's compositional approach. The following analysis elucidates the strong connection between this compositional approach and ontological time, an aspect which Cone's analysis did not extensively address.

Before proceeding with the analysis, it is crucial to clarify that temporality, philosophical aesthetics, and compositional techniques are approached from a comprehensive perspective, as articulated by Stravinsky himself. Musicological literature widely acknowledges that Stravinsky cultivated several distinct and well-defined musical styles throughout various stages of his career. Additionally, Stravinsky's musical works exhibits diverse compositional techniques across different periods. Terms such as 'temporal concepts (ontological time),' 'philosophical aesthetics (unity),' and 'compositional approach' are not intended to suggest that Stravinsky's music is governed by a singular compositional or aesthetic principle. It is imperative to note that Stravinsky did not explicitly correlate these temporal aesthetics and compositional techniques with specific creative periods. The emphasis here observes that compositional phenomena such as interlocking or stratification appear consistently across various stylistic phases, aligning with Stravinsky's own articulations on the matter.

^{31.} Igor Stravinsky and Robert Craft, Conversations with Igor Stravinsky, 11.

Case Study One: Stratification and Musical Analysis in the "Marche du Soldat" from Stravinsky's L'Histoire du Soldat

The core analysis examines Stravinsky's manipulation of the most fundamental musical units and intervallic figures, investigating the establishment of similarities and unities among these musical materials. Furthermore, it identifies how the sequential appearance of melodic phrases and other compositional elements manifests stratification, demonstrating temporal notions in both horizontal processes and vertical structures. Consequently, the analytical focus is primarily directed towards melodic and thematic contours, an approach that aligns with Cone's methodological framework. In terms of the score, the presentation of an analytical example on each motive, a paradigmatic analysis, is inspired by theorists such as Jean-Jacques Nattiez and his successors including Kofi Agawu³². This approach clearly provides a detailed analysis of the cell and motive itself. The topic focuses on the compositional process—how Stravinsky constructs a logical flow of musical elements.

The "Marche du Soldat" from *L'Histoire du Soldat* is characterised by three distinct motives, A, B, and C (illustrated in Figures 1-3). Motive A presents as a diatonic figure, comprising a concise unit that descends and subsequently ascends, thereby generating a curved contour. As illustrated in Figure 1, Stravinsky first establishes the contour of A1, which serves as the foundation for subsequent thematic recurrences throughout the movement. These subsequent iterations (A2-A10) exhibit a high degree of similarity and unity with the contour of A1, thereby maintaining cohesion across the entire movement. Most of these musical materials exhibit an identical contour, with variations in the placement of initial beats, metric allocations, and subtle augmentations of note length. These modifications result in nuanced repetitions that maintain the fundamental structure while introducing slight variability.

Figure 1: Motive A (A1-10) and Its Thematic Recurrences

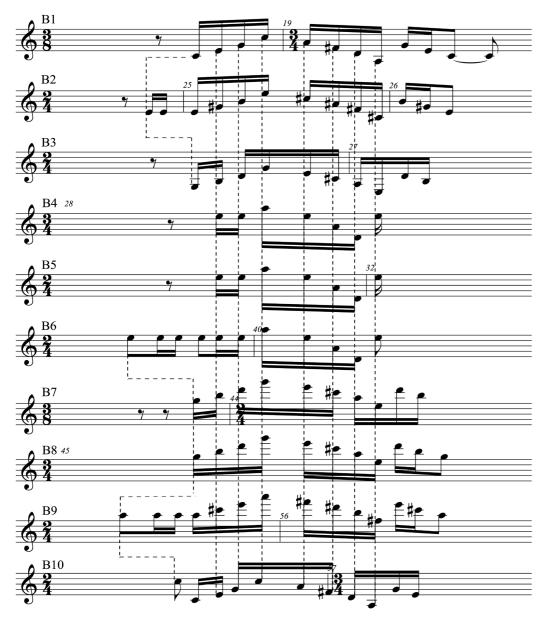


In contrast, motive B is distinguished from motive A by its utilisation of outlined triads and expansive intervallic relationships. Figure 2 illustrates the complete series of varied thematic recurrences (B1-10) in the first movement. These instances exhibit a pattern analogous to material A, maintaining the fundamental contour while introducing subtle modifications. Such alterations introduce the repetition of initial notes or truncation of concluding notes, generating nuanced variations. This approach fosters a sense of unity while evoking the conceptual framework of ontological time through the preservation of similar structural shadows.

^{32.} Kofi Agawu, Chapter 8 (Part III) "Beethoven's Op. 18 No. 3, First Movement: Two Readings, with a Comment on Analysis," in *Communication in Eighteenth-Century Music*, ed. Danuta Mirka and Kofi Agawu (Cambridge: Cambridge University Press, 2008), 230-53.

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Figure 2: Motive B (B1-10) and Its Thematic Recurrences



Motive C exhibits a close affinity to motive A, particularly in its stable rhythmic configuration. However, motive C is differentiated by its numerous repetitive notes that progress in semitonal increments. For instance, in measures 59-64, motive C moves chromatically around F and E, similar to C3.

Figure 3: Motive C (C1-5) and Its Thematic Recurrences



The integration of these three motives within the "Marche du Soldat," in conjunction with their respective order of appearance, is synthesised below in Diagram 1. This visual representation elucidates several notable points. Primarily, it is noticeable that intermittent disjunctions or separations occur between certain motive pairs, notably A4 and A5, B8 and B9, and C1 and C2. Notwithstanding this apparent disparity, these motives maintain a substantial degree of similarity in the aforementioned examples (Figures 1-3), exemplifying motivic cohesion and unity. Furthermore, the stratification of diverse motives reveals the multidimensional temporal expression inherent in Stravinsky's compositional style. While the musical progression ostensibly encompasses a multiplicity of concurrent events, deconstructing the horizontal melodic variations and vertical stratification of motive types demonstrates that the temporal characteristics implied in his music are, in fact, distinctly delineated. This analysis not only shows a high degree of compositional consistency but also clarifies the intricacies of Stravinsky's compositional approach³³.

^{33.} Previously, a more sophisticated analysis was undertaken regarding the concepts of order and consistency in "Marche du Soldat." The present study principally concentrates on studying a multi-layered analysis of both the vertical and horizontal dimensions of stratification, as well as the similarity in varied repetition within the musical work. For a comprehensive analytical exposition, the reader is directed to the author's prior published research: Tian-Yan Feng, "Order and Continuity in Igor Stravinsky's Music: An Analysis of "Marche du Soldat" from *L'Histoire du Soldat*," *Music.Ology.Eca* 4 (2023): 22-35.

Diagram 1: The example of Stratification in the entire first movement

Bar	1	6	10	12		32	41	45	48	51	53	56	59	66	73	78
o	A1	A2	A3	A4		A5	A6	A7	A8	A9	A10					Uni
ficati ty)				B1	B2-4	В5	В6	B7-8			В9	B10				
Stratification (variety)				C1									C2	C3	C4	C5

Case Study Two: An Analysis of Stratification in Stravinsky's Symphony in C (1940-1942)

As stated in the introduction, seminal theoretical scholars have analysed stratification within Stravinsky's compositions, encompassing works from diverse periods of his compositional career. The second composition in this study demonstrates a significantly divergent musical style when juxtaposed with the first case study. Yet with this apparent disparity, a meticulous examination of compositional techniques reveals analogous creative methodologies.

In a parallel methodological approach, this study comprehensively examines the compositional materials embedded within this symphonic work, while concurrently illuminating the degree of unity and similarity inherent in these melodic elements. To this end, the motives are systematically presented in order of appearance. These motivic components are then analysed, with specific emphasis placed on how they establish and reinforce stratification within the musical architecture.

First of all, there are five main ideas that can be found in the first movement of the Symphony in C. The first material, motive A, is the primary theme, which mainly consists of three notes (e.g. B-C-G). Stravinsky varies this motive by transposing it to different starting pitches but maintains the same melodic contour. This primary theme and its subdivisions are labelled A1, A2, A3, A4, A5, and A6. Motive A and its varied transpositions, shown in Figure 4, feature a curved contour. All primary motives share the same intervals: an ascending semitone then descending perfect fourth. However, motive A2 differs slightly from the others as it is the only one with an ascending whole tone. This primary motive runs through nearly the entire movement and is frequently repeated in this work.

Figure 4: Motive A (material 1, M1) with its varied transposition of different starting pitch



Material 2 in Figure 5 appears as an accompaniment rather than a motive or melodic figure and functions as an independent ostinato in the bass voice. This ostinato frequently appears together with material 1 (the primary theme), especially when played by lower strings such as the viola, cello, and contrabass. Material 2 not only serves as a basis for accompaniment, but its pitch class provides a crucial implication of tonality. It is strongly connected with the higher voice and plays an important role in understanding the ambiguity of tonal issues.

Figure 5: Material 2 (M2) as an independent ostinato



Materials 3, 4, and 5 (Figures 6-8) will be introduced in the following section. Material 3 is a melodic interval of a seventh, which is a noticeable leap when compared to material 1. Although this interval does not appear frequently, it always creates a strong contrast in the dynamic and melodic contour, leaving a vivid signal within the composition. Material 4, which also does not appear as frequently as material 1, is made up of many repetitive notes that change mostly in half steps and sometimes in thirds³⁴. This melodic material plays a crucial role as it appears before a return to the principal theme and presents strong tension with textural abundance. The final material in this composition is the second theme. The melodic contour of the second theme is an ascending arpeggio followed by repeated notes, like the invention of the first theme.

^{34.} The repetitive semitones can be understood as a figure derived from the first two notes of the motto theme (motive A). These notes move chromatically without any melodic function, and the successive semitones serve only a transitional role. Therefore, I do not classify it as part of the motto theme, but rather as a separate motive or musical material.

Figure 6: Material 3 (M3) is a leap interval with accent



Figure 7: Material 4 (M4) with many repetitions and moving chromatically



Figure 8: Second theme



This analysis utilises motive A, the principal motive, as an exemplar to show how temporal notions influenced Stravinsky's compositional aesthetics. The development of motive A exhibits a high degree of congruence with the introspective approach Stravinsky himself proposed. Figure 9 illustrates motive A and its thematic transformations, which are predicated on the core notes B-C-G³⁵.

Figure 9: Motive A1 (B-C-G) with A2 (D-E-B) and its thematic recurrence



^{35.} Given the constraints of space in this article, only a representative instance of thematic transformation is presented. Motives A3 through A5 employ analogous compositional approaches.

The previous literature review shows that Stravinsky's compositional process starts with a short cell or intervallic unit, which is then expanded to create a melodic line. As a result, the smallest unit is composed of three notes and then developed into at least 26 different variations of length³⁶. In addition, the overall picture of motive A also exhibits the compositional technique of varied repetition. The numerous units of motive A add and repeat the core notes, creating melodic lines of varying lengths.

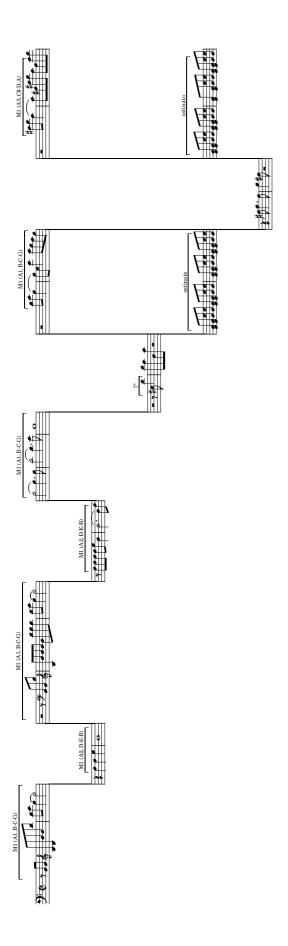
Following the analysis and deconstruction of the horizontal musical motives (A1-A6) and various melodic elements, these closely related materials are examined to see how they are stratified according to their sequential appearance, as illustrated in Diagram 2. The introduction, comprising 25 measures, commences with the motto theme (m. 1, motive A1) presented by the full string section, followed by its echo (m. 3, motive A2) in the oboe. The opening pattern recurs with a reiteration of the A1 and A2 motive combination (mm. 4-7). Subsequently, the B-C-G motive reappears in rhythmic augmentation (m. 15), preceding a return to the principal theme (m. 26). An independent ostinato material 2 accompanies the principal line in m. 26, a combination that recurs in m. 53. Material 3 (m. 37) introduces a melodic seventh interval, characterised by stark dynamic and melodic contour contrasts, followed by a restatement of the theme (featuring multiple variations of motive A1). The principal theme reappears (m. 43), transposed to D minor, accompanied by a two-note motive on E and G (see material 2). Material 4, a semitone figure (see figure 7), emerges in m. 49, preceding a return to the tonic theme (m. 53).

Diagram 2: The example of Stratification of in the introduction and the theme group in exposition

Bar1	3	4	7	15	26	37	43	49	53	
M1 (A1)		M1 (A1)		M1 (A1)	M1 (A1)		M1 (A3)		M1 (A1)	Unity
Stratification (variety)	M1 (A2)		M1 (A2)		M2	М3	M2	M4	M2	

These analytical findings and the stratification techniques employed in Symphony in C offer substantive evidence for Stravinsky's temporal aesthetics. Kramer observes that many of Stravinsky's thematically similar groups, while spatially discrete, are not intrinsically linked. Yet, these disparate themes collectively create a moment form. Regarding these repetitive thematic groups, Kramer posits that Stravinsky's inner musical landscape is fundamentally static, a perspective that aligns with discourse on temporal aesthetics rather than merely critiquing repetitive tendencies. Figure 10 presents a score-based representation of this analytical approach. Due to spatial constraints, the durations of some motives have been adjusted. For instance, motive A2, which originally spans seven measures, is shortened to two measures for illustrative purposes. The comprehensive bar numbers are delineated in Diagram 2.

^{36.} In total, there are 26 distinct units for A1; however, due to spatial constraints, only the first 13 are presented here. Units 14 through 26 are nearly identical to units 1 through 13, as unit 14 marks the beginning of the recapitulation, wherein all thematic material is closely replicated.



Case Study Three: An Analysis of Stratification in Stravinsky's Symphony in Three Movements (1945)

Stravinsky's Symphony in Three Movements serves as the final case study. This composition demonstrates marked stylistic divergences from the two preceding works, exhibiting substantially more intricate motivic and melodic structures. Nonetheless, Stravinsky's approach to motivic recurrences remains consistent with the principles of ontological time, manifesting distinct characteristics of similarity. Moreover, he employs stratification techniques to construct multi-layered temporal tendencies within the work, further exemplifying his innovative compositional approach.

Concerning the conceptual genesis of the motives in the first movement of this symphony, Stravinsky offers little explanation. The most effective approach is to systematically classify the melodic materials throughout the composition. This methodological framework facilitates comprehension of the sequential manifestation of these melodic units and uncovers the process through which they are stratified across multiple layers.

The primary motive of the first movement, herein termed as motive A (see Figure 11), is constructed from a semitone (G, A-flat) and a D-flat major triad. The movement presents six variations and recurrences of motive A, as delineated in Figure 18. These iterations of motive A exhibit distinctive characteristics: they typically commence with a rapid scalar passage that establishes the semitone, subsequently juxtaposed with a D-flat major triad.

Figure 11: Motive A: characterised by semitone relation and D-flat major triad



Motive B, as depicted in Figure 12 below, has a distinctive feature: it comprises an arpeggio derived from an identical three-note cell, with the octave partitioned into a minor third and a major sixth. This motive, initially presented by the French horn, was documented by Stravinsky himself, who attributed

its conceptual origin to the final movement of Symphony in C³⁷ (which serves as the second case study in this article). Notably, motive B demonstrates a higher degree of complexity relative to motive A. These variations of motive B are classified based on their shared arpeggiated figure, as observed in the musical example provided. In its subsequent iterations, this figure functions as either the primary melodic material (e.g. B1) or accompaniment (e.g. B2), thereby introducing substantial complexity. Nonetheless, the fundamental criteria for identifying motive B remains this distinctive arpeggio.

Figure 12: Motive B



Although the third motivic material in the composition may be derived from the D-flat major triad present in motive A, it is as an entirely novel motive, herein marked as motive C (Figure 13). The primary justification for its distinction lies in the function of the D-flat major triad; while in motive A it serves as a melodic interval, in motive C it manifests as a harmonic interval. Moreover, the overall texture evolves into a chordal progression, thereby generating a melodic line. It is upon this analytical basis that motive C is classified as a distinct melodic entity.

Figure 13: Motive C



The following musical examples, Figures 14 through 17, display the remaining melodic motives of the first movement. While some of these motives exhibit no apparent correlation to those previously examined, effectively constituting new material, others demonstrate discernible interconnections.

Motive E, in its initial manifestation, is preceded by a scalar passage (m. 225) that bears a striking resemblance to the ascending scale in motive A (see Figure 11). The subsequent intervallic second (m. 226) may also be derived from the intervals present in motive A. Motive F serves as another example; while introducing a new melodic idea, it incorporates elements of motive B, exemplifying the potential for these emergent melodies to synthesise previous motivic material. Furthermore, motive G exhibits a notable affinity with the pitch circulation evident in specific measures of motive A (cf. motive A, figure 11, mm. 4-7). In summation, a comprehensive analysis of the first movement reveals seven distinct melodic units, which function as the fundamental elements in constructing stratification.

Figure 14: Motive D



Figure 15: Motive E



Figure 10: Motive F (with B6)



Figure 17: Motive G

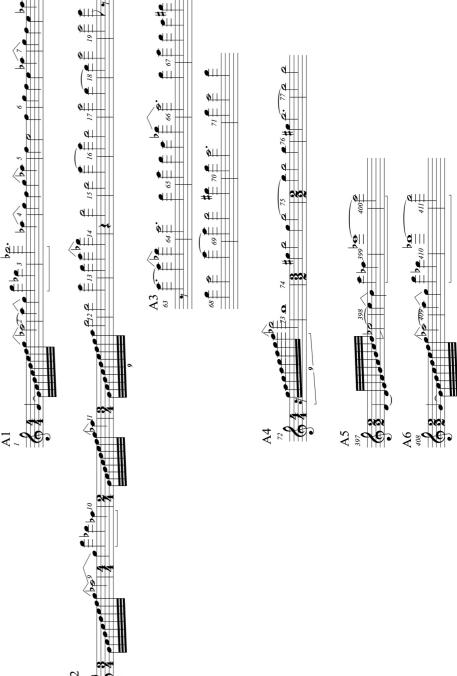


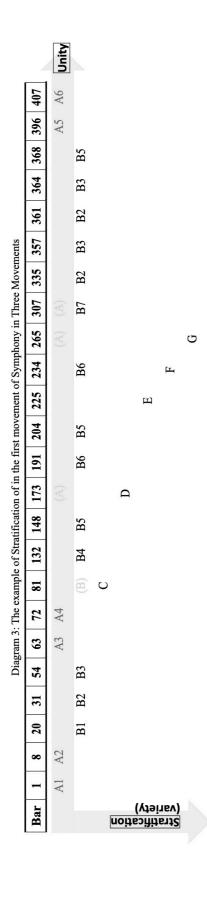
^{37.} In *Dialogues and a Diary*, Stravinsky provided more specific insights into the work in response to Robert Craft's enquiry. Craft questioned whether Stravinsky had, on occasion, referred to the symphony as a "war symphony" and sought clarification on the manner in which the music was influenced by contemporary world events. Stravinsky's response elucidates the relationship between his compositional process and the socio-political climate of the time, offering valuable context for the interpretation of the work. See Craft, *Dialogues and a Diary* in first edition, 83-85.

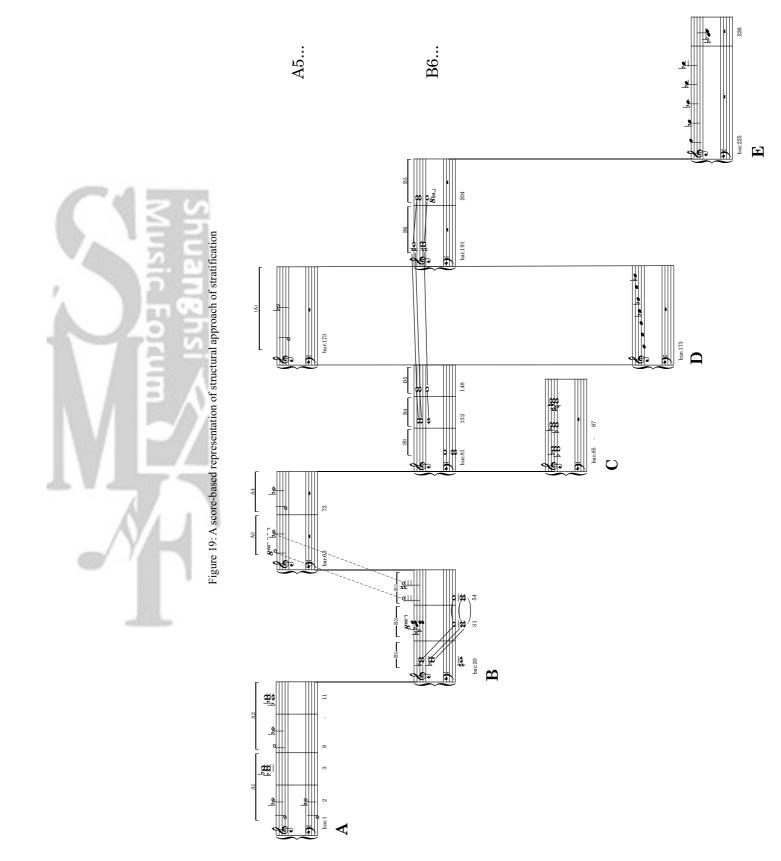
In this section, motive A continues to serve as a paradigmatic example, exhibiting the concrete manifestation of ontological time within Stravinsky's music. Figure 18 shows the recurrences of motive A throughout the entire movement. Consistent with previous analyses, the melodic contours exhibit remarkable congruence. One might posit that the scalar configuration of motive A and the minimalist material of the second interval function as a critical generative nucleus for the subsequent development of more intricate motivic structures. This methodological approach aligns with Stravinsky's self-articulated compositional strategies.

In conclusion, drawing upon the sequential manifestation of the seven aforementioned motives and their subsequent developmental permutations, the following schematic representation explains both their vertical stratification and horizontal unification. This visual explication, presented as Diagram 3 and Figure 19, serves to illuminate the intricate organisational architecture of Stravinsky's musical composition.









Summary:

Stravinsky articulated his aesthetic principles regarding musical structure in his seminal work, *Poetics of Music*, and in numerous other publications. He equated ontological time, a fundamental concept in the creative process, with principles of similarity in musical composition, aligning with Cone's observations on compositional approaches such as stratification. In this article's three case studies, one can discern that these basic principles are implemented at various structural levels through analogous compositional processes. This process is illustrated in the diagram below, which demonstrates how the composer constructs a logical progression of musical materials based on the principles of similarity and stratification (the latter process of layering also introducing elements of variety). The horizontal dimension of the diagram, achieved through repetitions and reprises of identical material, exemplifies similarity, while the introduction of new material results in contrast, as depicted by the vertical dimension.

The process observed across these three case studies exemplifies a unifying methodology for the organisation of musical materials, epitomising a quintessentially Stravinskian approach to musical architecture. It demonstrates a logical development of musical discourse that is both comprehensible and readily discernible. The specific application of this process is examined in each of the three cases in this article. This temporal paradigm will stimulate future scholars to approach and scrutinise Stravinsky's compositional techniques through this analytical lens, augmenting our comprehension of his extensive musical oeuvre.

Ontological Time: unity

Compositional approach: stratification and variety

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學思摘記

賴德和

前言

這些文字是 1991 至 1992 年間,寫下的閱讀、思考和創作的片段記錄。先從吳丁連的兩首作品《寂》和《寧靜的湖》談到他所追求的「文人音樂」。再從結構主義對神話的解讀方式,影響了「歷時性」、「共時性」的二維時間觀。這些都有助於我當時正在動筆的管弦樂曲《狂草》的創作思維。

一、1991年11月17日

抬頭正好與霞紅的落日餘暉道別。溫煦的火球,在落下的一刻特別迅速,往往三兩分鐘之間就 墮落地平線下。霎時暖意消散在秋涼中。

在這個案頭讀書、思考,已是第三個秋天了,每當這個季節,夕陽就走進落地窗進入我的視線。 不管是讀累了或是對先賢立論之神往,目送夕陽已經成為每個晴天的儀式。心中了無「夕陽無 限好 只是近黃昏」的傷感,無寧是恬淡安穩。

太陽按著季節來訪,也正意味著天「道」之不爽;而我割捨諸多塵緣,蟄居尋思,也是為了履 踐心中之「道」。知我罪我,只能由之。知我者謂我心憂;不知者謂我何求!

二、1991年12月14日

吳丁連來訪,並播放他前日於國家音樂廳首演的傳統樂器合奏曲《寂》的現場錄音。以文會友 式的晤談是蟄居生活中唯一的外務。簫、筝、琵琶、南胡外加擊樂群,完全相同於早年我為「雲 門舞集」所寫的《眾妙》。事先吳曾戲言《眾妙》迄今尚無對手,故意以相同編制一較高下。

聆聽後我的感想是:《寂》從頭至尾絲絲入扣,完全吸引我的注意力,是結構嚴謹富有霸氣的音樂。與《眾妙》一樣成功的因素是能順乎樂器特性來寫作;兩者不同之處是《眾妙》借助於傳統較多(例如鑼鼓的旁白敘述性......),而《寂》卻反之。我問「標題為《寂》,為何我聽到的卻是繽紛多姿,殊少冷場疏離?」吳答「寂的相反是什麼?」最後,吳再提出評語中「霸氣」究何所指?我回「簡單的說,就是自我意識強烈,只顧侃侃而談,少給聽者低迴轉圜的空隙,

1979.