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## From "The Firebird to The Rite of Spring": Meter and Alignment in Stravinsky's Russian-Period Works

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## From The Firebird to The Rite of Spring: Meter and Alignment in Stravinsky's Russian-Period Works

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### Abstract

Addressed here is the psychological complexity of meter, notated and heard, in *The Firebird* and Part II of *The Rite of Spring*. Of concern from the standpoint of the listener are the competing forces of meter, displacement, and parallelism; how these forces take precedence, with melody and harmony falling into place accordingly. Duly supplanted is the motivicism of the Classical style (developing variation), as Theodor Adorno observed some time ago. Also of consequence here are octatonic harmony and the strict performance style favored by the composer on a life-time basis.

**Keywords:** metrical displacement; parallelism; Adorno; octatonic harmony; strict performance style.

When *The Rite of Spring* was first conceived in the spring and summer of 1910<sup>2</sup>, Stravinsky's success as a composer had already been established with passages such as the ones quoted in Examples 1b-d. The cited excerpts, familiar no doubt to most readers of this volume, are from the Finale of *The Firebird*, which was first performed in Paris, June 25, 1910, to overwhelming popular and critical acclaim. The composer would later attribute the immediate success of *The Firebird* to the currency of its materials, to the fact of their be-

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<sup>2</sup> "I have started work on the Great Sacrifice", Stravinsky wrote to his collaborator, Nicholas Roerich, in a letter dated August 9, 1910; "Have you done anything for it yet?" See Letters to Nicholas Roerich and N.F. Findeizen. Appendix II in the accompanying booklet to Igor Stravinsky. 1969. *The Rite of Spring: Sketches 1911-1913*. London: Boosey and Hawkes: 27. These early sketches were interrupted by "a sort of *Konzertstück*", as Stravinsky recalled much later, which would eventually lead to *Petrushka* (1911). The "Great Sacrifice" was not resumed until summer, 1911. See Igor Stravinsky. 1962. *An Autobiography*. New York: W. W. Norton: 31; and Pieter C. van den Toorn. 1987. *Stravinsky and "The Rite of Spring"*. Berkeley: University of California Press: 23.

ing “of the styles of the day”.<sup>3</sup> Later, in 1919 and again in 1945, when orchestral suites were fashioned from the original ballet score, *The Firebird*, duly abridged in this manner, became for a long while one of the most performed works of the twentieth century. It was a success of which the composer grew resentful, however, unmatched as it would be by works of his neo-classical and serial eras. In “conversation” with Robert Craft in 1962, the composer dismissed the 1919 Suite in particular as an “audience lollipop”.<sup>4</sup>

Nonetheless, Stravinsky would also admit that the score of *The Firebird* was a “fecund” one, and especially where *The Rite of Spring* was concerned.<sup>5</sup> The connection between these works is worth pursuing from a number of angles, but perhaps above all from those of meter and rhythm. Processes having to do with the metrical displacement of repeated themes, fragments, and chords are the defining ones in much of Stravinsky’s music, and especially in the works of the composer’s Russian period, stretching from *The Firebird*, *The Rite of Spring*, and *Les Noces* (1917-23) to *The Soldier’s Tale* (1918).<sup>6</sup> Metrical displacement prevails as a kind of stylistic common denominator in these works, accommodating and even ushering in many of the phenomena we readily tend to identify with them: 1) ostinatos, along with short, open-ended melodic fragments (often folk-like in character) that are repeated at length and often quite literally; 2) superimpositions (or *stratifications*, as these have become known)<sup>7</sup> of fragments and chords that repeat according to cycles or spans that vary independently of each other; 3) juxtapositions of relatively heterogeneous and self-enclosed blocks of material<sup>8</sup>; 4) a diatonic, modal foundation that is subject to specific forms of octatonic intervention; 5) and the need, as expressed by the first three of the above-noted processes, for a strict application of the beat in the performance of Stravinsky’s music, precision coming at the expense of many of the traditional techniques of expressive timing (*rubato*) and nuance.<sup>9</sup>

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<sup>3</sup> Igor Stravinsky and Robert Craft. 1962. *Expositions and Developments*. New York: Doubleday: 145.

<sup>4</sup> *Ibid.* 49.

<sup>5</sup> *Ibid.* 151.

<sup>6</sup> For a broad discussion of the role of metrical displacement in Stravinsky’s music, see Pieter C. van den Toorn and John McGinness. 2012. *Stravinsky and The Russian Period: Sound and Legacy of a Musical Idiom*. Cambridge: Cambridge University Press: 13-41.

<sup>7</sup> See the account of stratification in van den Toorn and McGinness 2012: 2, 10, 17, and 114.

<sup>8</sup> For further comment on Stravinsky’s block structures in *The Rite*, see Gretchen Horlacher. 2011. *Building Blocks: Repetition and Continuity in the Music of Stravinsky*. Oxford: Oxford University Press; and van den Toorn 1987: 97-114.

<sup>9</sup> The musical rationale behind Stravinsky’s lifelong insistence on a strict application of the beat in performances of his music is discussed in van den Toorn and McGinness 2012: 5-6, 252-65. See also Malia Roberson. 2012. Stravinsky’s Concerto for Piano and Winds: Metrical Displacement,

Of concern to this inquiry is not just the construction of *The Firebird* and *The Rite*, or even the manner in which this construction distinguishes itself as Stravinskian in character. Of primary concern is the listener's apprehension of the construction. To repeat a theme, motive or fragment in Stravinsky's music is often to displace it metrically. And to displace it metrically is to upset the listener's expectations of metrical parallelism, expectations that a motive or fragment will be repeated at a metrically parallel location.<sup>10</sup> Put another way, the normal expectation is that a theme entering on the fourth beat of a 4/4 meter will be repeated on the same beat of the metrical cycle.

Crucial in this regard is the role metrical parallelism can play in the actual establishment and confirmation of a meter in the mind of the listener. The dynamics work both ways, in other words, reciprocally. Upsetting the listener's expectations of parallelism can have the additional effect of upsetting or at least challenging his/her metrical bearings. Whether those bearings are disrupted altogether or merely threatened hinges on a great many factors, perhaps above all tempo and metrical location. It is the middle range of the metrical hierarchy that is most salient to the listener, that is, levels of pulsation at about 80-100 beats per minute.<sup>11</sup> And it follows therefore that the displacement of a fragment or chord on and off either the tactus or possibly the level of pulsation just above is potentially the most disruptive in its effect.<sup>12</sup>

It should be stressed that meter is *entrained* by the listener, inferred reflexively and synchronized with various of his/her "internal clock mechanisms."<sup>13</sup> Like walking or running, meter is a kind of "motor behavior", as Justin London has described it.<sup>14</sup> Once internalized, meter engenders deeply embedded expectations of its own continuation, an ongoing form of anticipation of which the listener may become conscious only in the event of a disruption. An entrained meter is "renounced" only in the face of "strong contradictory evi-

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Tonal Distortion, and the Composer as Performer. Ph. D. dissertation. University of California at Santa Barbara.

<sup>10</sup> For an account of metrical parallelism, see Fred Lerdahl and Ray Jackendoff. 1983. *A Generative Theory of Tonal Music*. Cambridge: MIT Press: 75. See also David Temperley and Christopher Bartlette. 2002. Parallelism as a Factor in Metrical Analysis. *Music Perception*, 20, no. 2(2002): 117-49. A more detailed account of these phenomena as they inflect our perception of various Stravinsky works may be found in van den Toorn and McGinness 2012: 18-41.

<sup>11</sup> See Justin London. 2004. *Hearing in Time: Psychological Aspects of Musical Meter*. Oxford: Oxford University Press: 4-5.

<sup>12</sup> See Lerdahl and Jackendoff 1983: 17: The regularities of metrical structure are most stringent at the level of the tactus.

<sup>13</sup> David Epstein. 1995. *Shaping Time: Music, the Brain, and Performance*. New York: Schirmer Books: 138.

<sup>14</sup> London 2004: 7.

dence”, as Fred Lerdahl and Ray Jackendoff advised some time ago.<sup>15</sup> Here, the evidence that contradicts arises from the non-parallelism of displacement, the fact that alignment and the meter are at odds.

No less likely to affect the disruptive potential of a given displacement is the literal nature of the repetition; as a general rule, the more literal the repetition of a given theme or fragment undergoing displacement, the greater the potential for disruption. In *The Rite of Spring*, much of the repetition lacks the melodic and harmonic elaboration closely identified with the Classical style. In Stravinsky’s stratifications, in particular, pitch, instrumentation, dynamics and articulation are often held constant. And they are held constant, it would seem, in order that they might serve as a foil for what *does* change, namely, the vertical alignment of the reiterated entities as they relate to each other and the meter. In effect, traditional processes of motivic development are often sacrificed in order that vertical placement and displacement might be set in relief. The result is an altered relationship between the key dimensions of melody, harmony, rhythm, and form, one in which the forces of rhythm and meter can seem to take precedence, and according to which melody, harmony, rhythm, instrumentation, and articulation fall into place.

These large-scale adjustments in the balance between parameters can now seem as radical from the standpoint of rhythm and meter as the atonal and serial discoveries of the Second Viennese School were from that of pitch. They had a startling effect early in the past century on that most notorious of Stravinsky’s critics, Theodor Adorno. Nearly all of Adorno’s highly charged, negative assessment of *The Rite of Spring* and other Stravinsky works may be traced to the absence (or near absence) in this music of what Arnold Schoenberg called “developing variation”.<sup>16</sup> To Schoenberg and his adherents, the

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<sup>15</sup> Lerdahl and Jackendoff 1983: 27.

<sup>16</sup> See Arnold Schoenberg. 1967. *Fundamentals of Musical Composition*. Ed. Gerald Strang and Leonard Stein. London: Faber and Faber: 8. In spelling out the implications of the concept of “developing variation,” Schoenberg divided the “features of the motive” into four large categories, namely, *rhythm*, *intervals*, *harmony*, and *melody*. The means by which these features were varied were spelled out in considerable detail; a melody could be altered “by transposition,” “by semi-contrapuntal treatment of the accompaniment,” and so forth (10). “Homophonic music can be called the style of developing variation. This means that in the succession of motive-forms produced through variation of the basic motive, there is something that can be compared to development, growth” (8). Or see the description of “developing variation” in Arnold Schoenberg. 1985. *Style and idea: Selected Writings of Arnold Schoenberg*. Ed. Leonard Stein, trans. Leo Black. Berkeley: University of California Press: Criteria for the Evaluation of Music: 129-31. Ideas encompassed by Schoenberg’s use of the term “developing variation” underlie much current understanding not only of Schoenberg’s music but also of the Classical or “homophonic” style generally: see, for example, Carl Dahlhaus. What is ‘developing variation’? In Carl Dahlhaus. 1987. *Schoenberg and the New Music*. Trans. Derrick Puffett and Alfred Clayton. Cambridge University Press: 128-34; and Carl Dahlhaus. 1980. *Between Romanticism and Modernism*. Trans. Mary Whittall. Berkeley: University of California Press: 40-52. The concept is further explored in Walter Frisch. 1983. *Brahms and the Principle of Developing Variation*. Berkeley: University of California

Classical style—“homophonic” music, as Schoenberg sometimes called it—was defined accordingly. Apart from the role of tonality, it was the theme and its detached motives or “motive forms” that defined the Classical style, the elaboration and insinuation of these “forms” into all crevices of the Classical fabric, including the accompanying parts. From the time of Haydn’s “Farewell” Symphony<sup>17</sup> to that of Beethoven, Brahms (the pinnacle), and into the twentieth century with the Second Viennese School of Schoenberg, Alban Berg, and Anton Webern, such were the means by which individual works or movements of works were made whole. (Commonly implied by developing variation is not variation alone, but variation at the service of an overreaching train of thought, a process of development and growth.) Schoenberg would later describe his late atonal works as having been composed “with the tones of the motive”,<sup>18</sup> while Adorno would describe twelve-tone methods, defined at their core by operations of transposition, transformation, and segmentation, as an apotheosis-like intensification of the developmental style, a transfer of what earlier had been surface-articulative and even stylistic to the foundation of a new system of composing.<sup>19</sup>

Schoenbergian very nearly in their entirety, Theodor Adorno’s perspectives on analysis and twentieth-century music may well have come by way of Berg, Schoenberg’s pupil and Adorno’s composition teacher for several years during the 1920s. In the same way that the individual human subject could be depicted as undergoing a self-reflecting quest for fulfillment in a world conditioned necessarily by forms of alienation, the musical subject (or theme) and its “motive-forms” underwent a process of development in pursuit of an eventual fulfillment. And if the individual subject, transformed by development, remained in some sense the same individual, then these dialectics of nonidentity and identity could be applied to the transformation of the musical subject as well. Such were the conditions of vital art, Adorno reasoned, one that mir-

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Press. The continuing role of “developing variation” in Schoenberg’s atonal and twelve-tone repertoires is examined in Jack Boss. 1992. Schoenberg’s Op. 22 Radio Talk, and Developing Variation in Atonal Music. *Music Theory Spectrum* 14, no. 2 (1992): 125-49; and Ethan Haimo. 1997. Developing Variation and Schoenberg’s Twelve-Tone Music. *Music Analysis* 16, no. 3 (1997): 349-65.

<sup>17</sup> See James Webster. 1991. *Haydn’s “Farewell” Symphony and the Idea of Classical Style*. Cambridge University Press.

<sup>18</sup> Schoenberg 1985: 89.

<sup>19</sup> Theodor W. Adorno. 1973. *Philosophy of Modern Music*. Trans. Anne G. Mitchell and Wesley V. Bloomster. New York: Seabury Press: 102: “Twelve-tone technique elevated the principle of variation to the level of a totality, of an absolute; in so doing it eliminated the principle in one final transformation of the concept.” In other words, variation became a part of the operations of the system itself, eliminating the distinction of the theme as a (unvaried) point of departure. “As soon as everything is absorbed to the same degree into variation, not one theme remains behind, and all musical phenomena define themselves without distinction as permutations of the row.”

rored the reality of the human predicament in modern times. Summaries of Adorno's aesthetic argument have been composed by numerous scholars, including, perhaps most memorably, the American musicologist Rose Subotnik:

*By [developing variation] is meant a process whereby a musical element subjects itself to logical dynamic change while simultaneously retaining its identity, thus overcoming the contradiction between identity and non-identity. The most obvious embodiment of this principle occurs in the development and recapitulation of the sonata allegro, the structure essentially synonymous with [Beethoven's] second-period style. Development is the process through which the musical subject demonstrates its self-generated powers as it "goes out", in dialectical terms, from itself into the generalizing world of Other or object—through which it demonstrates, in other words, its freedom in objective reality... The emphatic reassertion of self in Beethoven's recapitulation is equally important in developing variation theory, for it is through the recapitulation that the subject demonstrates its power to return to itself, no matter how vigorously and far it has traveled into the world of object.<sup>20</sup>*

But for Adorno, nothing even remotely resembling such a scenario could be heard or sensed in *The Rite of Spring* and other works of Stravinsky's Russian period. Instead of a thorough-going development of themes and their motives, such development coming by way of changes in key, mode, interval, harmony, and/or instrumentation, there were "primitivistic patterns" that repeated relentlessly and often quite literally as well.<sup>21</sup> These "patterns" were not transposed, elaborated or even tossed about from one instrument to the next in a sympathetic (or "humanistic") dialogue (as they are, typically, in a string-quartet movement of Haydn's, for example). Especially in Stravinsky's layered or stratified textures, where the superimposed fragments and chords repeat according to varying spans or cycles, pitch, instrumentation, dynamics, and articulation are fixed from start to finish. A case in point is the stratified texture stretching from Rehearsal no. 64 in the "Ritual of the Rival Tribes" to the end of "The Procession of the Sage" at Rehearsal no.71. Missing altogether here is a sense of forward motion from one bar or even section to the next; the entire stretch is virtually immobile from a harmonic standpoint. A sense of climax is achieved by the composer not by harmonic change but by piling on more layers of reiterating fragments as the "Procession of the Sage" draws to a close. (At Rehearsal no.71, about fifteen such layers are superimposed. In *The Rite of Spring*, the block and layered or stratified textures typical of Stravinsky's music are *maximized*, to use a term introduced by Richard Taruskin

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<sup>20</sup> Rose Rosengard Subotnik. 1991. *Developing Variations*. Minneapolis: University of Minnesota Press: 20-21.

<sup>21</sup> Adorno 1973: 150.

some time ago.<sup>22</sup> These structures recur again and again in subsequent Stravinsky works, but never to the extent of their length or complexity in *The Rite*.)

Stravinsky writes “music against music” in the sense that his music denies what is musically inherent, namely, succession;<sup>23</sup> to quote again from Adorno, Stravinsky’s music is bereft of the idea of an “afterwards, now, and a before”:

*As a temporal art, music is bound to the fact of succession and is hence as irreversible as time itself. By starting it commits itself to carrying on, to becoming something new, to developing. What we may conceive of as a musical transcendence, namely the fact that at any given moment it has become something and something other than what it was, that it points beyond itself—all that is no mere metaphysical imperative dictated by some external authority. It lies in the nature of music and will not be denied<sup>24</sup> ...*

The force of Adorno’s critical and aesthetic argument about *The Rite of Spring* and Stravinsky’s music more generally is undeniable. Whatever the response to his ideas, positive, negative, or possibly mixed, there is no denying the weight or explanatory yield of his account, the grand design that can accommodate a vast assortment of musical features, qualities, styles, and chronologies. Enthusiasts of Stravinsky’s music, even while rejecting Adorno’s critical verdict, can gain much by pulling the argument through the Classical style and into the twentieth century. The musical characterizations and large-scale stylistic distinctions drawn in one way or another can be appreciated on their own, quite apart from the negative light in which they are couched.

However, much of the point of Stravinsky’s music can still seem to have been missed by the critic-philosopher. Adorno’s insistence on the validity of a single musical style and tradition can still seem to have blinded him to the pluralism at the outset of the past century. In many of the dance movements in *The Rite of Spring*, the ostinatos and ostinato-like repetition can make for a hyper-static landscape, to be sure. Yet, in accord with an internal logic no less robust than the one imagined by Adorno, that landscape serves a purpose. The immobility of pitch, harmony, instrumentation, and articulation highlights the shifts that occur in the vertical alignment of the superimposed, reiterating fragments and chords. The irregular spans and accents brought about by displacement (by the shifting of alignment) set off a chain reaction in the mind of the listen-

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<sup>22</sup> See Richard Taruskin. 2005. *Oxford History of Western Music*. Oxford: Oxford University Press. Vol. IV, Chapter 47.

<sup>23</sup> Theodor W. Adorno. 1998. Stravinsky: A Dialectical Portrait. In Theodor W. Adorno. *Quasi una Fantasia: Essays on Modern Music*. Trans. Rodney Livingstone. London: Verso: 151-52.

<sup>24</sup> *Ibid.* 151.

er, one in which displacement, hinging for its apprehension on meter, is pitted against the forces of metrical parallelism. These two forces of displacement and parallelism are irreconcilable; listeners can be aware of one while attending to the other, but they cannot attend to both simultaneously. Hence the metrical disturbance to which they are apt to lead.

Thus, too, contrary to another of Adorno's complaints, many of the irregular accents in *The Rite* are likely to be felt as such by the listener. Even where the notation features rapidly changing bar lines, the suggestion of a meter can be powerful enough to allow for a sense of syncopation, and for the conflicting forces of displacement and parallelism to make themselves felt. Listeners may become actively engaged participants in the play of these countering forces, something other than the hapless "victims" imagined by Adorno.<sup>25</sup>

But what larger meaning or significance attaches itself to Stravinsky's invention? Why should listeners of his music turn excitedly to passages that disrupt their metrical bearings? Why should the disruption prove aesthetically appealing? And what point can there be in immobilizing features of harmony and instrumentation only to expose a displacement in the repetition of various fragments and chords? In Stravinsky's music, what is the aesthetic attraction of metrically displacing a repeated theme or chord?

Answers to these questions may well have to await future study in the fields of music perception, cognitive psychology, and/or neuroscience. It would be helpful to learn more about the *entrainment* of meter, for example, how, spontaneously, a metrical grid is made physically a part of the listener. The implication here is not that aesthetic experience can be reduced to electro-chemical activity, or that, in effect, the mind can be reduced to the brain and its functions. Only a future study in the above-noted fields is likely to shape future questions about aesthetic experience, belief, and immediacy.

## I.

The various features and qualities identified above with Stravinsky's musical style are integrally a part of the Allegro section of the Finale of *The Firebird*. Shown in Example 1a is the Russian folk song on which the Finale is based, as transcribed in Rimsky-Korsakov's 100 Russian National Songs. Directly below in Examples 1b-d are Stravinsky's three arrangements of this song in the Lento, Allegro, and Maestoso sections of the Finale. Apart from the song's division

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<sup>25</sup> See Adorno 1973: 156-57. Stravinsky's irregular accents are viewed as "arbitrary" by Adorno. Pursued as ends in themselves, these accents are incapable of being anticipated and hence assimilated by the listener; they are apt to be experienced as "convulsive blows and shocks". "The musical subject makes no attempt to assert itself and contents itself with the reflexive absorption of the blows. The subject behaves literally like a critically injured victim of an accident which he cannot absorb and which, therefore, he repeats in the hopeless tension of dreams".

into two phrases (labeled A and B in Examples 1a-d), none of these settings bears much of a resemblance to Rimsky-Korsakov's harmonization. Yet there are several outside contexts with a specific bearing on the configuration of the Allegro section. These are shown in Examples 2a-d, starting with a passage from Mussorgsky's song cycle *Without Sun* (Example 2a), which is known to have served as the source of the opening of Debussy's *Nuages* (Example 2b), and from which the opening of Stravinsky's opera *The Nightingale* is likely to have been derived (Example 2c). In turn, the Introduction to *The Nightingale* may also have had an effect on the configuration of the Allegro section in the finale.<sup>26</sup> Noteworthy in Examples 1a-d and 2a-d is the two-phrase division, and in Examples 1c-d and 2b-d, the octave doublings, open fifths, and back-and-forth motions. The intersection of these four contexts carries historical as well as analytical implications; the comparison allows for a close reading of Stravinsky's Allegro arrangement, one with a sharpened sense of the particular of the composer's idiom.

Example 1: *The Firebird*, Finale: Russian folksong; Stravinsky's arrangements

a) *100 Russian National Songs*, op. 24, no. 21, ed. Nicolai Rimsky-Korsakov

The image displays four musical examples (a, b, c, d) of a Russian folksong, each showing two phrases, A and B, separated by a vertical dashed line. Example a) is a single-staff melody in 3/4 time, marked 'Lento' with a tempo of 54. Example b) is a single-staff melody in 3/4 time, marked 'Lento' with a tempo of 54, and includes 'gliss.' markings. Example c) is a two-staff piano arrangement in 3/4 time, marked 'Allegro' with a tempo of 208, and includes 'ff' markings. Example d) is a two-staff piano arrangement in 3/4 time, marked 'Doppio valore, Maestoso' with a tempo of 104, and includes 'etc.' at the end.

<sup>26</sup> Act I of *The Nightingale* was completed by the end of summer, 1909, and hence before Stravinsky commenced work on *The Firebird*.

Example 2: Possible sources of *The Firebird*, Finale, Allegro section

a) Mussorgsky, *Without Sun*, III, mm. 16-18

b) Debussy, *Nocturnes (Nages)*, mm. 1-3

c) Stravinsky, *The Nightingale*, Introduction

d) *The Firebird*, Finale: opening bars of Allegro section

The entirety of the Allegro section of the Finale is reproduced in Example 3. Eventful here is the *block* structure of this section, as vivid an illustration of such a structure as any in the two ballets that were to follow, *Petrushka* and *The Rite of Spring*. At Rehearsal No.18, the A+B formation that serves as a point of departure is split into two with the two phrases (or *blocks*) A and B repeated out of order, independently of one another. (See Example 3; the number directly above each bracket represents the total number of half-note beats encompassed by each block restatement; in parentheses, half-note beats are converted into quarter-note beats.)

The reader will note, however, that, as outlined by the brackets in Example 3, block A of Stravinsky's arrangement is made to begin on the *second* rather than on the first quarter-note beat of Stravinsky's 7/4 bar. The downbeat is shifted forward by a quarter-note beat. This analytical rebarring of the Allegro allows the listener to continue with the alignments introduced in the previous Lento section, that is, with the glissando and timpani punctuation heard as syncopated upbeats to phrase A. The rebarring also relieves the listener of the necessity of switching to the difficult quarter-note beat at Rehearsal No.17 (with Stravinsky's metronome count of 208 beats per minute), allowing him/her to continue instead with the half-note beat as the tactus; the notated sevens may be avoided altogether.

Example 3: Allegro section, block restatements; alternate barring

The image displays a musical score for an Allegro section, consisting of four systems of piano music. Each system shows two staves (treble and bass clef) with chords and rhythmic markings. The score is divided into measures, with brackets and vertical lines indicating different barring options (A and B) for groups of notes. The tempo is marked as  $\text{♩} = 208$ . The key signature has three sharps (F#, C#, G#). The systems are numbered 17, 18, and 19. System 19 includes the instruction "Doppio valore".

System 17: Measures 1-4. Bar 1: 3 (6) A. Bar 2: 4 (8) B. Bar 3: 3 (6) A. Bar 4: 4 (8) B.

System 18: Measures 1-3. Bar 1: 3½ (7) A. Bar 2: 3½ (7) A. Bar 3: 3 (6) A.

System 18 (continued): Measures 4-6. Bar 4: 3½ (7) B. Bar 5: 4 (8) B. Bar 6: 3½ (7) A.

System 19: Measures 1-3. Bar 1: 3 (6) A. Bar 2: 4 (8) B. Bar 3: A etc.

Marked off by brackets and vertical lines in Example 3, the revised barring is the *preferred* reading of the Allegro, it being the one listeners are most likely to adopt, and for the reasons cited above. This is not to suggest that Stravinsky's notated barring is "wrong", but only that other and possibly more compelling options are likely to suggest themselves to the listener. From the standpoint of meter and rhythm, the music at Rehearsal nos. 17 and 18 is likely to strike the listener as a good deal more lively (and conflicted) than Stravinsky's 7/4 measures with irregular subdivisions imply.

More specifically, the notated 7/4 bars conflict with the listener's natural inclination (or instinct) to infer and impose a steady metrical framework from and on the successive series of seven, largely undifferentiated quarter-note beats. Stravinsky's notation is a form of *anti-meter* in this regard. Above all, it is the *conflict* between these different interpretations of the bar line that distinguishes the rhythmic-metric invention in the Allegro, not one interpretation taken singly and in isolation from the other(s).

At Rehearsal No.18, block A is followed by another block A rather than by block B, the effect of which is to lengthen block A to 3 ½ half-note beats, and to force the listener (finally!) to accept the sevens of Stravinsky's notation. (The listener may continue with the half-note beat at this point, adding an "extra" quarter-note beat at the end of each repeat of the A segment.) The changes in length and ultimately in alignment are highlighted by what does *not* change throughout these sections of music, namely, *everything else*.

In other words, the Allegro consists of ten repetitions of blocks A and B, six of block A and four of block B. In pitch, instrumentation, and articulation, these repetitions, first at Rehearsal No. 17 and then, following a semitonal transposition, at Rehearsal No. 18, are *exact*. And they are so in order that the length, order, and alignment of the two phrases might be highlighted.

And the development that may be inferred by way of this interaction between fixed and non-fixed elements is largely metrical. As rebarred in Example 3, the (A+B) + (A+B) formation at Rehearsal No.17 may be read with the half-note beat as the tactus. At the level of the bar line, this formation spells (3+4) + (3+4) half-note beats, with the second block B the recipient of an extra beat. At Rehearsal no.18, the extra half-note beat becomes an extra quarter-note beat; although the listener is likely to read through the repetitions of phrase A in a parallel fashion, a threat is posed all the same. The drama of this invention, in which, however briefly, a tactus or meter is implied and then threatened or disrupted altogether, would be enacted again and again in Stravinsky's music over the next fifty or so years.

## II.

Identifying *The Firebird* as a "fecund" score, Stravinsky cited the 7/4 measures and their irregular subdivisions in the Finale as "the first appearance in my music of metrical irregularity".<sup>27</sup> And so they are, even if, as we have noted just above, the notated irregularity may represent only part of the story as far as the listener's metrical involvement with this music is concerned. Notation is by definition partial, of course, typically an approximation of what the composer may envision in listening and in performance. Often in Stravinsky's scores, the notated bar lines conceal as much as they reveal.

In the revised barring in Example 3, the vertical bars coincide with restatements of blocks A and B. Parallelism rules, as bar lines and block repeats are synchronized. And the expectation is that the listener will respond accordingly. In the revised barring at Rehearsal no.18, the extra quarter-note beat in the first of the successive block A repeats will mean that the half-note beat will be interrupted at some point; on the other side of the bar line, listeners must

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<sup>27</sup> Stravinsky and Craft 1962: 151.

scramble to reestablish the half-note beat as the tactus. This is the sort of experience that both implies and is implied by the analytical rebarring bracketed in Example 3.

Elsewhere in recent years I have labelled barrings such as the notated and revised ones traced in Example 3 as *radical*;<sup>28</sup> in parallel fashion, measure-lengths coincide with the lengths of motives or blocks and their subsequent repeats. When repeats are spaced irregularly, measure-lengths will reflect that irregularity.

In the Introduction to Part II of *The Rite*, the repetition of the configuration shown in Example 4a is again radical. Closely resembling the treatment of blocks A and B in *The Firebird* Finale, the configuration bracketed as block A5 is immediately followed by a repeat. The repeat stretches the configuration by a quarter-note beat, which is acknowledged by the 6/4 signature. In parallel fashion again, blocks and their repeats, whether literal or modified in some fashion, correspond to the bar lines.

At Rehearsal nos. 87-89, block A becomes a separate layer in a large-scale stratification (see Example 4b). The harmony is octatonic, as is often the case with the dance movements of *The Rite*. Typical of the dissonance in *The Rite* is the 0-5, 11 interval span, reading down;<sup>29</sup> the chord Db-Ab, D in the strings unites with (Bb-F) in the first part of block A to implicate Collection I, one of the three transpositions of the octatonic set (see the left-hand side of the vertical dotted line in Example 4b). The latter alternates with Eb-Bb, E in the strings and (C E G) in the second violins, implicating Collection III. Although the separation between these two alternating octatonic transpositions is blurred in time by the sustained chords in the flutes and lower strings, alternations of this kind between octatonic transpositions are rare in Stravinsky's music. Indeed, they are present on a consistent basis only in the fourth tableau in *Les Noces*.

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<sup>28</sup> For further discussion of Stravinsky's *radical* notations, see van den Toorn and McGinness 2012, especially 18-28. The distinction between *radical* and *conservative* responses, between allowing the meter to be interrupted and allowing it to be sustained, respectively, was first made in Andrew Imbrie. 1973. Extra Measures and Metrical Ambiguity in Beethoven. In *Beethoven Studies*. Ed. Alan Tyson. New York: W. W. Norton: 45-66. The distinction was then introduced in Lerdahl and Jackendoff. 1983: 23-25, as a means of classifying alternative readings of hypermeter at the opening of Mozart's G minor symphony, K.550. It has since been applied to various types of reactions to metrical displacement in *The Rite of Spring*; see van den Toorn 1987: 67. See also Gretchen Horlacher. 1995. Metric Irregularity in *Les Noces*: The Problem of Periodicity. *Journal of Music Theory* 39, no.2(1995): 285-310.

<sup>29</sup> See van den Toorn 1987: 131-52, for an account of the octatonically conceived 0-5, 11 interval span as it manifests itself throughout *The Rite*.

Example 4: *The Rite of Spring*; Part II, Introduction

a)

86 ♩ = 48

tps.  $p$   $A_5$   $A_6$

b)

87 + 2

cls.  $mp$  Flag.

strings

octatonic collection I collection III

Harmony and melody (pitch relations, more generally) have been slighted in this inquiry, in large part because of the considerable attention they have received elsewhere in the past half century.<sup>30</sup> Relevant here, however, is the static, deadlocked quality of the octatonic configurations shown in Example 4b, a quality traceable ultimately to the symmetries of the octatonic set itself, and one very much in keeping with the immobility sensed earlier on the part of the repetition, stratification, and block textures in *The Rite* and in Stravinsky's music more generally.

Thus, too, the fixed, immobile features of the instrumentation, registration, articulation and now octatonic harmony serve to highlight the shifts that occur in the alignment of the reiterating fragments and chords. The internal logic of *The Rite* and other Stravinsky works is again brought to the fore, as rhythm and meter take on a dynamic character, in relation to which the domains of melody, harmony, and form tend to fall into place.

### III.

No less radical than the barrings cited in Examples 3 and 4a and b are the bar lines accompanying the melodic repeat structure that opens the "Glorification of the Chosen one" at Rehearsal no. 104 in Part II of *The Rite of Spring*. Parallelism rules here as well, with the successive 5/8 measures at the start of this movement a reflection of block A5 and its immediate (near) repeat (see the brackets above the staves in Example 5a; the numbers indicate the number of eighth-note beats encompassed by each block and its subsequent repeat). The contrasting block B9 that follows consists entirely of repetitions of the tiny motive a2, derived in turn from block A5 (see the brackets below the staff in Example 5a). Much of the rhythmic play of this movement may be traced to changes that occur in the number of successive repetitions of motive a2. Left uncertain of that number, listeners are left guessing, as it were, with their anticipation of a return to the more reliable block A5 and its a2+b3 motivic succession heightened as a result.

Clearly at work in our apprehension of this music, however, are forces other than those of parallelism. The repetitions of motive a2 in block B9 are likely to instill in the listener a sense of the quarter-note beat and possibly even of the half-note beat as well- the quarter-note beat as the tactus at 104 beats per minute, the half-note beat as a possible bar line. In Example 5b, the opening of the "Glorification" is rebarred accordingly. (Although at a somewhat slower

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<sup>30</sup> See, for example, Arthur Berger. 1972. Problems of Pitch Organization in Stravinsky. In *Perspectives on Schoenberg and Stravinsky*. Ed. Benjamin Boretz and Edward T. Cone. New York: Norton: 123-154; Pieter C. van den Toorn. 1983. *The Music of Igor Stravinsky*. New Haven: Yale; and Richard Taruskin. 1996. *Stravinsky and The Russian Traditions: A Biography of the Works Through "Mavra"*. Berkeley: University of California Press. Two vols.

pace, the hammer-like action of the quarter-note beat in the notorious 11/4 bar that directly precedes the “Glorification” could also act as a form of support for the quarter-note beat.)

Example 5: *The Rite of Spring*; “Glorification,” opening bars

a)

104 ♩ = 144

A<sub>5</sub> A<sub>5</sub> B<sub>9</sub> A<sub>5</sub> A<sub>7</sub>

a<sub>2</sub> b<sub>3</sub> a<sub>2</sub> b<sub>3</sub> a<sub>2</sub> etc.

b)

104 ♩ = 144

In this *metrical* interpretation of the opening of the “Glorification” (Example 5b), the character of block A5 and its immediate repeat changes dramatically. Quite simply, the repeat is heard as a displacement of the original. Block A5 falls first on and then off quarter-note beat, with the (near) repeat assuming a *syncopated* character. A bit more complex is the return of block A5 followed by A7 at mm. 4-5. By way of the extra eighth-note beat of block B9, block A will enter first off and then on the quarter-note beat, a reversal of the initial sequence; the syncopated version comes first, with the original sequence displaced.

Of course, listeners sensitive to the metrical implications of the opening bars of the “Glorification” could well experience a disruption of the meter at the return of block A5 at m. 4. The forces of parallelism could well overwhelm those of the meter at this point, with the listener switching in midstream from one mode of interpretation to another.

Yet the larger point at this juncture concerns (once again) the multiple forces that are apt to engage the listener in his/her hearing and understanding of this music, along with the fact that not all of these forces may be represented by the notation. And there are different kinds of listeners as well, listeners who might respond differently to a given stimulus. Above all, however, it is often the *conflict* between the various forces examined above that characterizes Stravinsky's music from a rhythmic-metric standpoint, the fact that there is often insufficient evidence for an easy, automatic determination by the listener in favor of one force over another.

The metrical rebarring traced in Example 5b could be described as *conservative*,<sup>31</sup> given that the listener is imagined as *conserving* the meter (or at least the quarter-note beat) through the irregularly spaced repeats of blocks A5 and B9 and their embedded motivic successions. In turn, Stravinsky's radical barring in Example 5a could be judged *anti-metrical*, in that the parallelism underlying the notation runs counter to the metrical implications of mm. 1-5. In his radical interpretation of this music, Stravinsky bars against the suggestion of a meter for which, nonetheless, he provides evidence not only at the opening of the "Glorification," but later as well.

In fact, it is as if, on a simultaneous basis, the composer had actually wanted it *both ways*. Somewhat sadistically, it can seem, conservatively inclined listeners are drawn into the comfort of a meter only to be confronted post haste with a challenge or a form of disruption. Here again, the aesthetic matter is likely to beckon, the question as to why maneuvers of this kind in Stravinsky's music should prove aesthetically exciting to the listener. And again, unfortunately, while the logic of these maneuvers can be traced, their physical and psychological effect weighed, little can be said of the pleasure that is gained, the passion that may well intervene. The lack of a rationale in this regard is owing at least in some measure to the closed-off character of the whole, of course, the latter being something other than the mere sum of its parts, to paraphrase from the cliché of Gestalt psychology. Analysis deals with parts and more or less used parts at that, even if, like a hovering ghost, the sensed whole may yet guide the analyst, theorist, critic or historian in his/her calculations.

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<sup>31</sup> See note 27. Analytical rearrangements of Stravinsky's music, designed for the most part to reveal the hidden periodicity behind the notated irregularity, were first introduced by Leonard Meyer in his discussion of the opening "Soldier's March" in *The Soldier's Tale*; see Leonard B. Meyer. 1956. *Emotion and Meaning in Music*. University of Chicago Press: 120. They have since been applied for roughly the same reasons in van den Toorn. 1987: 71; and van den Toorn and McGinness 2012, especially 18-28. The term *anti-metrical* has been used to designate "dissonant" layers of metrical pulsation in the music of Schumann; see Harald Krebs. 1999. *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann*. Oxford: Oxford University Press, Chapter 2. It has been used more specifically in relation to Stravinsky in David Huron. 2006. *Sweet Anticipation: Music and the Psychology of Expectation*. Cambridge: MIT Press.

IV.

It should not be concluded from the preceding illustrations that Stravinsky's interpretations of the bar line are invariably radical. I would guess that there are as many conservative as there are radical interpretations in his scores. The stratification at Rehearsal nos. 28-30 in the "Augurs of Spring" in Part I of *The Rite* features multiple displacements in the repetition of the flute fragment (see Example 6). Because of the conservative treatment - a 2/4 meter is sustained throughout - the displacements lie exposed to the eye. In a radical approach to this music, changing bar lines would have marked off the repeats, with the displacements obscured as a result.

Example 6: *The Rite of Spring*; "Augurs of Spring," second flute

The concluding dance movement of *The Rite*, the "Sacrificial Dance", may be the most challenging, rhythmic-metrically speaking. Although the barring is for the most part radical, there is no mistaking the syncopation that, in the opening configuration of this movement, owes its felt presence to the sort of metrical scheme bracketed in Example 7. The configuration is the first part of another repeat structure, in which the repeat is literal and without any form of displacement. In other words, the repeat at Rehearsal no. 143 is not displaced relative to the continuing  $\frac{3}{4}$  meter.

Where the performance of *The Rite* and other Stravinsky works is concerned, the composer's lifelong insistence on a strict, metronomic approach will come as no particular surprise to readers of this inquiry.<sup>32</sup> If the play of meter, dis-

<sup>32</sup> Statements by Stravinsky about the necessity of keeping to a strict beat when performing his music may be found in Igor Stravinsky. *Some Ideas About My Octuor*, reprinted in Eric Walter White. 1966. *Stravinsky: The Composer and his Works*. Berkeley: University of California Press: 529; Igor Stravinsky. 1956. *Poetics of Music in the Form of Six Lessons*. Trans. Arthur Knodel and Ingolf Dahl. New York: Vintage, chapter 6; and Igor Stravinsky and Robert Craft. 1956. *Conversations with Stravinsky*. New York: Doubleday: 133-35. For a chronicle of these and related comments by the composer on performance matters, see van den Toorn and McGinness 2012: 258-61.

placement, and parallelism is to make itself felt, then the beat has to be maintained at an even pace, and hence with a minimum of expressive timing or *rubato*. (The issue concerns a *minimum of rubato*, given the difficulty posed by the deadpan performance, the idea of an execution entirely without expressive timing or nuance being very nearly impossible for most performers.<sup>33</sup> The impulse to dramatize a musical structure by way of nuance is evidently too fundamentally a part of the impulse to perform itself.)

Example 7: *The Rite of Spring*; “Sacrificial Dance,” opening

Much of the criticism of Stravinsky’s music in the past century may be traced to the necessity of adhering to a steady beat, as advertised by the composer and supplemented by his own performances as a pianist or conductor. Among the many critics and performers who complained about the strict performance style, Adorno ridiculed the idea of a performance lacking any “expressive fluctuation of the beat”.<sup>34</sup> But while the strict style limits somewhat the mediating role of the performer, the expressive qualities of Stravinsky’s music are not thereby diminished. On the contrary, as we have indicated already, those qualities are enhanced. As long as the listener or performer is able to sense the style as an outgrowth of the internal logic to which our attention has been directed in this inquiry, then there should be little difficulty in keeping to an even beat. Such a beat can be maintained sympathetically, in other words, not mechanically or submissively.

<sup>33</sup> See van den Toorn and McGinness 2012: 257.

<sup>34</sup> Adorno 1973: 154.

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