

Stravinsky's "Spring Rounds": Primer for a Twentieth-Century Musical Aesthetic¹

BY JENA ROOT

When first assigned to teach an undergraduate twentieth-century theory course in the early 2000s, I decided to begin the semester with an informal, anonymous survey: I gave each student an index card and asked them to write a few words that would describe their notions about twentieth-century music. Many of the responses were discouraging, though hardly surprising: "ugly," "chaotic," "can't be analyzed," and "no rules" were among the most common. Some students went so far as to express fearfulness, while others conveyed a more positive--though still unhelpful--attitude: "Now we can write whatever we want and call it 'music!'"

Even with the perspective of a full century, the dissonant musical language of the early 1900s can prove difficult to the undergraduate music theory class. Biases and preconceptions may afflict even the most open-minded of students, followed closely by trepidation in the face of music they may perceive as ungoverned by any established syntax. After several semesters immersed in the conventions of the common-practice period, many will find themselves perplexed when the harmony and voice leading principles they have worked so hard to learn have seemingly vanished and they are left with few guidelines to explain a baffling new language. The fact that core music theory is in essence taught chronologically further contributes to the problem. In even the best scenario, the twentieth century falls in the final semester of theory where it is subject to the tonally-biased ears we have worked so hard to create in the preceding courses. At worst, it is condensed into a few weeks and relegated to the end of a semester of nineteenth-century chromatic harmony.² In either case, it is a key challenge for the teacher to find

¹ An earlier version of this paper was presented at the annual conference of the College Music Society in Portland, Oregon on 22 October 2009. The author wishes to thank Prof. Steve Laitz for his guidance through the review and editorial process, and also Prof. David Morgan, who, from his unique perspective as both an accomplished jazz musician and Stravinsky scholar, provided valuable insights to this article.

² In a 2002 survey conducted by the College Music Society, 55% of respondents reported that one term of twentieth-century music was

musical examples that provide an aesthetically pleasing entry point while exemplifying some of the basic techniques that characterize the musical language.

No study of twentieth-century theory, however brief, can easily overlook Igor Stravinsky's *The Rite of Spring*. And while a meaningful study of the entire ballet is not likely to be undertaken within the time constraints of an undergraduate theory course, the hauntingly lyrical "Spring Rounds" movement is an ideal primer for students' understanding and acceptance of a dissonant musical language:

- The movement has a clear formal structure consisting of two principal sections bracketed by an introduction and coda.
- Its brevity allows for meaningful exploration within one or two class periods.
- Its textural and rhythmic unity make it easy for less-experienced score readers to follow, and Stravinsky's own piano four-hand version is readily available.³
- Perhaps most importantly, the movement incorporates aspects of diatonic language and is for the most part centered on E $\flat$. In fact it is one of only three passages in the entire ballet to use key signatures.⁴

The Rite of Spring may be the most examined work of the twentieth century, despite the composer's own assertion that he "was guided by no system" in its construction.⁵ In 1963 Arthur Berger brought attention to "the fact that no significant body of theoretical writing

required at their institutions; 27% reported between zero and one term, and 13% reported zero terms required. Richard B. Nelson, "The College Music Society Music Theory Undergraduate Core Curriculum Survey," *College Music Symposium* 42 (2002), 69.

³ http://www.cdsheetmusic.com/products/disk_contents.cfm?product=27, accessed September 30, 2009.

⁴ The other two passages are: "The Augurs of Spring" 13-31 (three flats), and "Mystic Circle of the Young Girls," 91-93, in the solo violas only (five sharps).

⁵ Stravinsky and Craft, *Expositions and Developments*, 147.

has emerged to deal with the nature of twentieth-century music that is centric (i.e., organized in terms of tone center) but not tonally functional" and went on to call for "a new branch of theory... starting from what this music itself is, rather than dwelling upon its deviation from what music was previously."⁶ Nearly fifty years on, the scholarly community remains deeply divided about how best to deal with the musical language of Stravinsky's early period.⁷ Various studies have been predicated on octatonicism⁸ (and by extension, interval cycles⁹), pitch class sets,¹⁰ polarities,¹¹ pattern-completion,¹² and more recently, modal rotation of non-diatonic (i.e., harmonic and melodic) minor scales.¹³

That scholars have yet to come to a consensus for analyzing this music will prove all the more troubling to the theory teacher in search of a sound pedagogy suitable for undergraduates who are at best unfamiliar with the concepts listed above, and at worst, still on shaky ground with common-practice syntax. This article will suggest a lesson plan that introduces "Spring Rounds" as a vehicle wherein students may begin to explore Stravinsky's musical aesthetic intuitively and aurally, before confronting more

⁶ Berger, "Problems of Pitch Organization in Stravinsky," *Perspectives of New Music* 2 (1963), 11.

⁷ Straus and Tymoczko both summarize this very complex debate rather concisely, albeit each with an eye toward his own reading. Straus, "Stravinsky's Tonal Axis," *Journal of Music Theory* 26 (1982), 261-264; Tymoczko, "Stravinsky and the Octatonic: A Reconsideration," *Music Theory Spectrum* 24 (2002), 69-70.

⁸ A wealth of examples may be cited; perhaps the most representative (and most specific to *The Rite*) is Van den Toorn, *Stravinsky and the Rite of Spring: The Beginnings of a Musical Language*, 115-213.

⁹ Antokoletz, "Interval Cycles in Stravinsky's Early Ballets," *Journal of the American Musicological Society* 39 (1986), 578-614.

¹⁰ Forte, *The Harmonic Organization of "The Rite of Spring"*. New Haven and London: Yale University Press, 1978.

¹¹ Straus, "Stravinsky's Tonal Axis," 261-290.

¹² Straus, "A Principle of Voice Leading in the Music of Stravinsky," *Music Theory Spectrum* 4 (1982), 106-124.

¹³ Tymoczko, "Stravinsky and the Octatonic: A Reconsideration," 68-102.

challenging conceptual issues.¹⁴ The discussion presumes that students have a foundational understanding of common-practice tonality and are familiar with the seven diatonic modes; no further knowledge of twentieth-century techniques is assumed. As such, it is suitable for the early sessions--perhaps even the first class meeting--of an undergraduate twentieth-century theory course.¹⁵ In the spirit of this first-day encounter, the concept of octatonicism is largely avoided, and set theory referenced only casually.¹⁶ (One would of course assume that these topics are to be covered later in the course, either revisiting this piece or using a different one.) Rather, the piece will be presented in a way that "warms" students to a new aesthetic while at the same time providing an opportunity for the consideration of new terminology ("collection" vs. "scale," "tone center" vs. "tonic", etc.).

Finally, it should be noted that for all the scrutiny that the rest of the ballet has undergone, "Spring Rounds" seems to provoke only cursory discussion among theorists,¹⁷ and in some cases is barely mentioned at all in the standard literature. Perhaps this lack of attention is attributable to the very same traits that make the movement such an appealing choice for undergraduate study in the first place. To scholars interested in decoding the complex web

¹⁴ John Rahn does this beautifully with an even more "aesthetically challenging" work, Webern's *Symphonie, Op. 21*. Rahn, *Basic Atonal Theory*, 4-18.

¹⁵ The movement is also an ideal starting point (in contrast to the more complex Introduction and "Augurs of Spring") for upper-division and graduate seminars focusing on the *Rite of Spring* as a whole.

¹⁶ Craig Cummings makes the excellent point that basic integer notation may be introduced very informally without disrupting the flow of the lesson. Cummings, "Three Introductory Miniatures for an Undergraduate Twentieth-Century Analysis Course," *Journal of Music Theory Pedagogy* 8 (1994), 168.

¹⁷ Forte's analysis, true to its title, focuses almost exclusively on the dissonant vertical sonorities beginning at m. 32, and its language is a bit advanced for beginning undergraduates. Forte, *The Harmonic Organization of the "Rite of Spring"*, 52-55. Turek, by contrast, provides only four discussion questions, addressing mode, orchestration, and texture in a very general way. Turek, *Accompaniment to the Analytical Anthology of Music*, 211-218. Taruskin and Van den Toorn both discuss the folk song sources for the movement, but the latter's technical analysis skips the movement altogether. Taruskin, *Stravinsky and the Russian Traditions*, 890, 895, 900, 906-911; Van den Toorn, *Stravinsky and the Rite of Spring*, 10, 12-13; Van den Toorn, *The Music of Igor Stravinsky*, 121.

STRAVINSKY'S "SPRING ROUNDS": PRIMER FOR A MUSICAL AESTHETIC

mm	Section	What did you hear?	Ear-Training Questions
1-6	Intro	• Melody in double octaves accompanied by trill (winds)*	1. What is the interval of the trill? (M2) 2. What is the interval between the first and last notes of the melody? (m7) 3. What solfege/scale degrees do you hear for the first five notes? (Ambiguous, but probably $\hat{1}-\hat{6}-\hat{1}-\hat{6}-\hat{5}$ or $\hat{5}-\hat{3}-\hat{5}-\hat{3}-\hat{2}$) 4. Based on the phrasing you hear, sketch a rhythmic/metric scheme for the section. (See score)
7-31	A1	• Syncopated ostinato (low pizzicato strings). • Repeated chords (strings). • Melody #1: 5-note "interruption" (winds). • Melody #2: 4-note melody (horns trading with soli violins). • Melody #3: oscillating melody embellished with trills (high winds).	5. What is the interval between the lowest note of the ostinato and the top note of the repeated chords? (M2 or M9) 6. What is the harmonic interval created by the moving pizzicato line of ostinato? (Parallel perfect fifths [!]) 7. What is the intervallic range of each melody you hear? (Melody #1: P5; Melody #2: P4; Melody #3: P4)
32-42	A2	• A-section melody re-harmonized with dissonant chords, expanded register (orchestral <i>tutti</i>; brass and percussion predominate).	8. What is the interval between soprano and bass in the last chord of the section? (m2 or m9) 9. Based on the phrasing you hear, sketch a rhythmic/metric scheme for the section.
43-54	B	• Pedal point accompanied by "arcing" figures (strings and winds). Punctuating chords (orchestral <i>tutti</i>).	10. Listen to the uppermost voice of the pairs of punctuating chords. What is the melodic interval? (M3)
55-62	CODA	• Similar to the introduction. (The most astute listeners may hear a change in orchestration.)	11. What is the interval between the first and last notes of the melody? (m6)
*The instrumentation indicated in this chart is not meant to constitute a full analysis of the orchestral forces of the movement. These are simply the instruments that students listening without a score are likely to pick out of the overall texture.			

Example 1: Form Chart with ear-training questions. Leftmost column to be filled in last.

of sounds that characterize most of the *Rite*, “Spring Rounds” is so comparatively transparent as to warrant little or no comment. Richard Taruskin goes so far as to describe the opening music of the movement as “one of the tamest pages in the *Rite*.”¹⁸

Students will benefit first from listening to the work several times without the score and tracking the form aurally. (If computer projection is available and the piece is played in iTunes or a similar media player, they might even make note of the elapsed time at the beginning of each section they hear.) Sub-groups of the class may be assigned different tasks: Group 1 might listen for changes in orchestration while Group 2 tracks the entrance of new melodies, etc. As the formal structure is established, students can then be called upon to answer specific ear-training questions for each section (see Example 1, right-hand column). Once the movement has settled into students’ ears and minds, locating formal markers in the score should be a simple matter. The class might fill out a form chart such as the one in Example 1, with the leftmost column of measure numbers to be added *last*, once the score is consulted.

The opening measures of “Spring Rounds,” coupled with the preceding bars that conclude the “Ritual of Abduction,” provide the opportunity for a foundational discussion of relative dissonance and resolution, as the half-step tremolo $E\flat / E\sharp$ ([48] - 4) gives way to the more consonant whole step $E\flat / F$ at [48].¹⁹ The students who were previously charged with finding the interval between the starting and ending pitches of the introduction will likely be the first to realize that mm. 1-6 simply represent a “composing downward” of the trill, inverting the major second ($E\flat$ - F) to a minor seventh and filling in the space with a simple folk melody. $E\flat$ and F thus emerge as “significant” pitches in the absence of a clear tone center.

At this point it will be important to distinguish (both to readers and their students) between the terms “tone center” and “tonic,” as the latter implies a functional tonality with traditional hierarchical relationships.²⁰ Hence the terms “tone center (tc),” “pitch center,” or

¹⁸ Taruskin, *Stravinsky and the Russian Traditions*, 2:999.

¹⁹ Hereafter, [48] will be designated as m. 1, and remaining measures numbered sequentially (1-62) throughout the movement.

²⁰ Berger, as noted earlier, refers to music “organized in terms of tone center but not tonally functional.” He later adopts “priority” as a “more noncommittal term.” Berger, “Problems of Pitch Organization in Stravinsky,” 11-12. Straus’s analyses, which are predicated on tonal axes, naturally embrace the term “tone center.” Straus, “Stravinsky’s Tonal

"centric pitch" will be used throughout. Since avoidance of "tonic" necessarily excludes terms such as "supertonic," "mediant," etc., the relative positions of tones within a scale will be designated by scale-degree numerals, or as "second degree," "third degree," and so on.

To fully grasp the ambiguity of the introduction, E_b and F (as well as other pitches), may be vetted as potential tone centers: Dividing the class in half, Group 1 will sustain the E_b , calling it $\hat{1}$,²¹ while Group 2 sings the melody with E_b as $\hat{1}$. At first, E_b will make aural sense as a tc, with F acting as an upper neighbor. But by m. 3, they will begin to find the numbers awkward to sing--which is exactly the point (Example 2).

The image shows a musical score for two staves, labeled 1 and 2, in a key signature of three flats (B-flat, E-flat, A-flat). The time signature is 4/4. The score is divided into two systems of three measures each. Above the first system, a box contains the number 48. The notes are as follows: Staff 1 (treble clef) has a whole note E_b in m. 1, a half note F in m. 2, and a half note G in m. 3. Staff 2 (treble clef) has a quarter note E_b in m. 1, an eighth note F in m. 1, a quarter note G in m. 1, a quarter note A in m. 2, a quarter note B in m. 2, a quarter note C in m. 2, a quarter note D in m. 3, a quarter note E in m. 3, and a quarter note F in m. 3. Solfège numbers are written below the notes: Staff 1 has $\hat{1}$ in m. 1, $\hat{2}$ in m. 2, and $\hat{3}$ in m. 3. Staff 2 has $\hat{1}$ in m. 1, $\hat{2}$ in m. 2, and $\hat{3}$ in m. 3. The word "ok" is written below the first measure of each system, with an arrow pointing to the right. The word "ok" is also written below the first measure of the second system, with an arrow pointing to the right.

Example 2. mm. 1-6 sung with E_b as tone center.

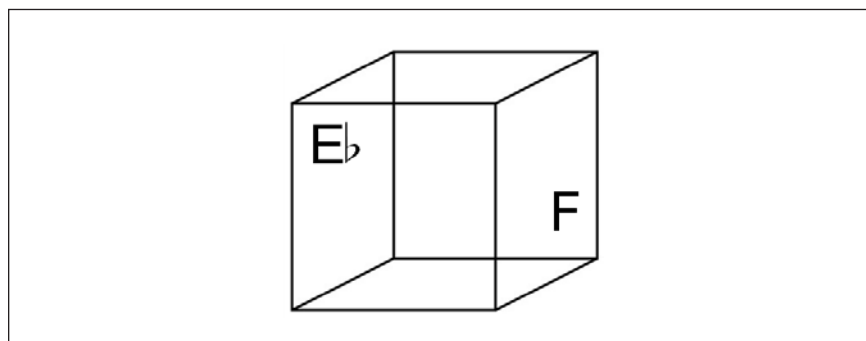
The activity may then be repeated with Group 2 sustaining the F and Group 1 singing the melody with F as $\hat{1}$ (Example 3). This

Axis," 261-266; "A Principle of Voice Leading in the Music of Stravinsky," 106, 124. In a more recent and more pedagogical context, Clendinning and Marvin distinguish between "centric" music (where a hierarchy of relationships is established around a single pitch class in nontonal music) and music with a "focal point" (where a pitch class "is emphasized through repetition or motivic use but [does] not...imply any hierarchy among the remaining pitches of the collection.") The authors take great care to communicate that the terms "tonal" and "tonic" are subject to the norms of common-practice conventions. Jane Piper Clendinning and Elizabeth West Marvin, *The Musician's Guide to Theory and Analysis*, 617-618.

²¹ Moveable-do solmization is equally appropriate for this piece. If it is used, the examples in this movement are best-suited to do-based minor.

will necessitate a rather clumsy start on $\hat{7}$, giving way to a more pleasant situation as the F minor triad emerges in m. 3. Once again, the “uncomfortable” spots only serve to highlight the difficulty of pinning down a single tc. Other pitches may be attempted as well: $A\flat$ ($\hat{5}-\hat{3}-\hat{5}-\hat{3}-\hat{2}$) might seem plausible, especially given the key signature of the passage, but it never quite assumes the role as $\hat{1}$ in the passage—all three of its appearances are as the third of an F-minor triad. Students might also try C ($\hat{3}-\hat{1}-\hat{3}-\hat{1}-\hat{7}$) or even $B\flat$ ($\hat{4}-\hat{2}-\hat{4}-\hat{2}-\hat{1}$), but none of these is quite as satisfying to the ear as $E\flat$ or F, both of which originate from the trill.

Example 3. mm. 1-6 sung with F as tone center.



Example 4. Necker Cube

A visual analog may be found in the structure of the Necker Cube (Example 4), where the mind may reverse the figure by “willing” one or the other square face of the structure into the front-most position. In this case the faces are represented aurally by $E\flat$ and F.

It would be inaccurate to call this a "bitonal"²² or even "bi-centric" phenomenon; E $\flat$ and F cannot be perceived as simultaneous tone centers, just as we cannot focus on both faces of the cube at the same time. (If we attempt this, the figure "flattens" into a hexagon and the illusion of a third dimension vanishes. This is quite difficult, if not impossible, to accomplish.) Instead, E $\flat$ and F alternate as pitch centers. Further discussion questions will help students examine the passage to find support for each pitch:

- *How are local hierarchical relationships established in support of each pitch?*
In mm. 1, 2, and 4, E $\flat$ ($\hat{1}$) is supported by B $\flat$ ($\hat{5}$), while mm. 3, 5, and 6 clearly outline an F minor triad ($\hat{5}$ - $\hat{3}$ - $\hat{1}$).
- *What are the boundary pitches of the melody, with and without grace notes?*
With grace notes, its boundaries are an octave, F to F. Without them it spans a minor seventh, F to E $\flat$.
- *How do the grace notes contribute to the tone-center ambiguity of the introduction?*
In an elegant melodic paradox, the grace note F appears as the highest tone in the bars that support E $\flat$ (mm. 1, 2, and 4). Conversely, E $\flat$ grace notes embellish the F minor triads in mm. 5 and 6.
- *A pitch inventory of the introduction will show that the notes in use come just short of a complete diatonic collection.²³ What pitch is missing, and how does its absence affect our perception of the tonic?*
G (or possibly G $\flat$) is the missing pitch. Rotating the collection to begin on E $\flat$ results in an absent third degree (E $\flat$ -F-[?]-A $\flat$ -B $\flat$ -C-D), and foreshadows a

²² Tymoczko discusses "polytonality" at some length as a term burdened by "much undeserved abuse," questioning the notion that humans are incapable of hearing two key areas simultaneously. Tymoczko, "Stravinsky and the Octatonic," 84-85.

²³ It should be pointed out to students that "collection" is used in favor of "scale" or "mode" in this case, because a tone is missing and because the tone center is unknown. This particular *collection* forms the basis for the Dorian *scale* in the following section.

modal ambiguity that will pervade the following section ($G\sharp$ versus $G\flat$). Beginning on F simply results in a collection without a second degree ($F-[?] - A\flat - B\flat - C - D\flat - E\flat$); its absence is hardly noteworthy in that case. Incidentally, when the melody is restated in its transposed form in the coda, G then appears as the final pitch of the movement.

The matter of a tone center seems to be settled at m. 7, where $E\flat$ asserts itself as the lower boundary tone in the Dorian ostinato that will pervade most of the movement. Here, the whole step previously established in the introduction's trill is expanded to a major ninth and softened by the intervening tones of the $E\flat$ minor add-9 chord.²⁴ (The same ninth is expressed melodically on beats one and two of the bass ostinato.) Additionally, $G\flat$ dispels any modal questions by taking its place in the key signature as the mode's rightful third degree.²⁵ The movement's main section (*Sostenuto e pesante*) includes three principal melodic ideas, hereafter Melodies 1, 2, and 3 (Example 5, also see the form chart in Example 1):

Example 5. Melodic materials in use for *Sostenuto e pesante* (mm. 7-42).

The interjection of Melody 1 at m. 10, along with its elaboration in mm. 13-15, immediately undermine the established Dorian mode by introducing the movement's first $G\sharp$. The shift from Dorian to Mixolydian provides an opportunity to discuss the parallel nature of the two modes, identical except for their third degrees. Here it is important to point out that $G\flat$ and $G\sharp$ create a *linear* dissonance;

²⁴ Instructors are reminded not to call this chord " $E\flat$ minor 9," which would imply that a minor seventh ($D\flat$) is present, when it is not.

²⁵ A related class activity might involve a drill where key signatures are combined with non-traditional tone centers to yield a mode. For example: "The diatonic scale starting on A with two sharps is...?" (Mixolydian). "The Phrygian scale with four flats begins on...?" (C).

that is, they are used in tandem, but for the time being are never heard simultaneously. It is as though Stravinsky is "auditioning" both inflections of $\hat{3}$, in order to prime our ears for their simultaneous deployment in the passage beginning at m. 32.

All four instances of Melody 1 (mm. 10, 13-15, 28-29, and 30-31) recall the tc ambiguity set forth in the introduction: As before, students may be instructed to sing the motive with $E\flat$, then F as $\hat{1}$, and discuss which version "sounds right" in context. Once again the answer is inconclusive: On one hand, the relentless downbeats of the surrounding ostinato naturally guide the ear toward $E\flat$, and the melody's highest note ($B\flat$) provides further support for this hearing. On the other, F is never far from our consciousness, coloring the $E\flat$ texture as the uppermost note in the add-9 chord. Furthermore, all four iterations of Melody 1 begin on F. (Jazz musicians in the class may be quick to point out that the F minor triad is an upper extension for chords based on $E\flat$ in the jazz syntax.)

The following class-discussion questions refer to the melodic structure of this passage. In order to achieve consensus for the purposes of the discussion, let us assume for now that $E\flat$ is the predominating tc ($\hat{1}$) with F acting as the second degree ($\hat{2}$).

- *How does the melody's interaction with the ostinato support $E\flat$ as a tc?*

All four melodic statements begin with F on the "and" of beat 1, preceded immediately by the bass pitch $E\flat$ on the downbeat. This metric positioning guides us to hear $E\flat$ -F-G- $B\flat$, etc. In statements 2 and 3, the melody's ending pitch F is sounded at the same time as the $E\flat$ bass note, creating a harmonic major ninth on the downbeat, likely to be interpreted as $\hat{1}$ in the bass and $\hat{2}$ above.

- *Examine the end-point of each statement of the melody.*
Which statements seem conclusive (“closed”) and which are inconclusive (“open”)?

In this case, the first and fourth iterations of the melody convey a sense of closure by ending on E $\flat$, while the inner statements ending on F are left open (See Example 6).

- *What classical structure is brought to mind by the four iterations of this melody?*

Although a common-practice syntax is not at work here, the melodic structure resembles that of a double period (closed-open-open-closed).

m. 4 Closed

mm. 13-15 Open

mm. 28-29 Open

mm. 30-31 Closed

Example 6. Four iterations of Melody 1 as analogous to a double-period structure.

The relentless E $\flat$ minor add-9 chord that begins in m. 7 will be a familiar sound to most students, due to any number of examples to be found in jazz and popular music. It is doubtful that the sound of the major ninth that outlines the chord, nor the slightly more dissonant major seventh (G $\flat$ /F) contained therein will bother them. Indeed, they will probably not even hear the sonority as a “discord” at all. In this case, the principal impediment to a meaningful

harmonic analysis is the fact that the chord *doesn't go anywhere*. Too often, in teaching tonal music we inadvertently predispose students to equate "analysis" with "chord-labeling" as determined by pitch content. In this passage, pitch content is a static canvas--all seven diatonic pitches are present in each measure of the ostinato. In the absence of any functional harmony, momentum must be created through other, more subtle means, namely boundary tones and degrees of dissonance. The lower boundary, E $\flat$, is of course unchanging until just before the *Vivo* section beginning at m. 43. Using the four-hand piano score, students may easily track upper boundary tones throughout the movement (see Example 11).

The mild dissonance created by the E $\flat$ /F boundaries of the foundational add-9 chord is neutralized almost immediately by the upward reach of Melody 1 to the fifth degree, B $\flat$ (m. 10 and m. 13). As if taking a cue from the melody, the chord structure shifts at m. 15 so that B $\flat$ now assumes the top position in the sonority. With boundary tones now temporarily stabilized at the perfect fifth (E $\flat$ /B $\flat$), a new degree of dissonance appears within the chord: G $\flat$ and F, initially expressed as a major seventh, now share more intimate quarters as a minor second.²⁶ Melody 2 follows, accompanied by a series of parallel diatonic seconds that provide another excellent ear training opportunity: With three lines in parallel motion (beginning on F, G $\flat$, and B $\flat$), the class may be divided into groups and called upon to sing (1) any one of the three lines by itself; (2) any two lines together (creating either parallel seconds, thirds, or fourths); (3) all three lines together. (Notice that when the octave doublings are removed, the pitch-class span of the melody is F to E $\flat$ --the same as that of the introduction (See Example 7)).

The limited pitch materials in this passage allow virtually any voice range to be accommodated. Stronger classes should be able to sing the lines unaccompanied; weaker students may have trouble with the parallel seconds, but will still benefit by singing along as the parts are played, or even singing with the recording. In either case, students are encouraged to listen for dissonant seconds softened by the thirds above.

Even as it is accompanied by parallel seconds, Melody 2 simultaneously establishes the most consonant boundary tone yet: that of the upper E $\flat$. It is, however, immediately supplanted by F

²⁶ This is also the horns' first significant entrance in the movement. If class time allows, the orchestration of this passage is a worthwhile topic of discussion.

in a new melodic figure (Melody 3) at m. 22. Oscillating between F and C, this very simple line is a fertile source for class discussion:

- *How does Melody 3 introduce tension into the existing texture?*

The melody's boundaries, F and C, create mild dissonance (whole steps, to be precise) against the recently established stable boundary tones E $\flat$ and B $\flat$.

- *How many distinct layers of sound are present at this moment? What similarities are shared among the layers, and how do they interact?*

There are three layers present; let us number them 1, 2, and 3 from the top downward. Layers 2 and 3 are both characterized by parallel motion. If the bass-note downbeat is removed from Layer 3 the remaining "tenor" line shares the same pitch-class span (F to E $\flat$) with Layer 2, and with the melody of the introduction. Layer 1 might be considered a remnant of the alternate F tc of the introduction, with F and C acting as $\hat{1}$ and $\hat{5}$ in their own right. If scale-degree numbers are applied to both Layer 1 and the topmost voice of Layer 2, the contrary motion between the voices recalls that of a classical voice exchange, with the top voice a whole step "too high"²⁷ (See Example 7).

²⁷ Once again, Tymoczko's "polytonality" discussion might be invoked and summarized as a discussion point (see note 22): "Do we hear this passage in two "keys" at once? Is this even possible? In what contexts *could* it be possible? Or do we hear F and C as $\hat{2}$ and $\hat{6}$, respectively, of the Dorian scale?"

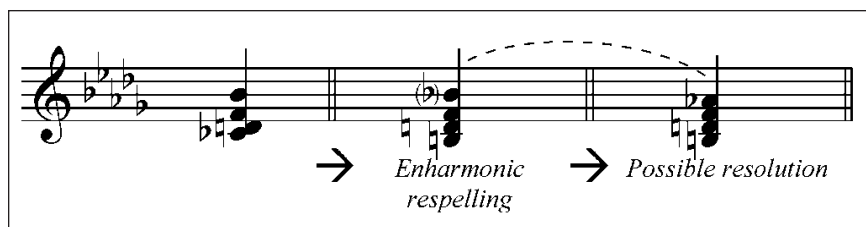
Example 7. mm. 22-25. Layers 1 & 2 move in contrary motion, analogous to a voice exchange; Layers 2 and 3 share the same pc span (shown in boxes).

Example 7. mm. 22-25. Layers 1 & 2 move in contrary motion, analogous to a voice exchange; Layers 2 and 3 share the same pc span (shown in boxes).

As Melody 3 asserts F as the new upper boundary, the chord structure at m. 26 follows suit by reverting to its original form, also with F in the uppermost voice. The boundary is subsequently raised to B $\flat$ once again with the final appearance of Melody 1 just before m. 32.

The students exemplified in our hypothetical first-day survey might well point to m. 32 as support for their negative responses. Even those with the best of intentions may feel confounded in their attempts to understand this suddenly dissonant--one might even say ferocious--passage. First, the "offending" sonority should be discussed on its own terms: Taruskin describes it as a diminished triad with an added diminished octave derived from an unresolved

appoggiatura to a would-be diminished seventh chord²⁸ (Example 8). Tonally-oriented undergraduate students might more readily see it as a major triad with an added half step against the root. (In this example, B $\sharp$ is added against a B $\flat$ major triad.) But divorced from any common-practice context, as a sonority in itself, the chords accompanying the melody are all comprised of the same pitch set class (0,1,4,7). To reiterate, this article presumes that students have no prior experience with pitch-class set theory, but at this point, the set-class name might be casually introduced so that the sonority is easily referenced later (See note 16).



Example 8. The (0,1,4,7) sonority as unresolved diminished seventh.

To call the sonority “0,1,4,7” is fine—even encouraged—but to make sense of it *sonically*, students should be directed to consider its context. Up to this point, Stravinsky has gone to great lengths to create a sound canvas that is almost entirely diatonic, and to present new dissonance in an orderly fashion. Assuming the listener is now inured to any dissonance occurring among pitches of the diatonic scale, this passage (mm. 32-42) simply continues on the same trajectory, adding chromatic half steps on either side of the first and fifth degrees (Example 9). Pierre Boulez elegantly explains this phenomenon as a “horizontal diatonicism [in opposition] to a vertical chromaticism.”²⁹ Students may discover this for themselves by charting the chromatic tones within the measures that contain only a single sonority (Example 9):

²⁸ Taruskin, *Stravinsky and the Russian Traditions*, 2:944.

²⁹ Boulez, *Notes of an Apprenticeship*, 74.

The image shows two musical staves. The first staff, labeled 'mm. 32-33', contains two measures of music. Above the staff, two arrows point to specific chords with the label 'Diatonic pitches'. Below the staff, four arrows point to notes with labels: 'UN to 5̂', 'LN to 1̂', 'LN to 5̂', and 'UN to 1̂'. The second staff, labeled 'mm. 36-37', contains two measures of music. Above the staff, an arrow points to a chord with the label 'Diatonic pitches'. Below the staff, an arrow points to a note with the label 'Alternate 3̂'.

Example 9. Diatonic and chromatic pitches in mm. 32-33, and 36.

Having undermined the first and fifth scale degrees in the first two measures of the passage, Stravinsky proceeds to do likewise with the third, $G\flat$, by pitting it against $G\sharp$ in mm. 36-37. (Students will recall that $G\sharp$ was first introduced in Melody 1 as an alternate mediant to $G\flat$.) Here, the two modal inflections are simply verticalized into a split-third triad. As students begin to discover just how carefully Stravinsky chose his “discordant” notes, Stephen Walsh’s observation on the composer’s chordal language rings especially true: “We cannot argue, in the presence of so beautifully constructed a dissonance, that any old crash would have done just as well.”³⁰

Lest we overlook the horizontal aspects of this passage, let us again consider three layers, numbered from the top (Example 10):

- *What do all three layers have in common?*
They all consist of some type of sonority moving in parallel motion: Parallel thirds in Layer 1, parallel (0,1,4,7) chords in Layer 2, and parallel perfect fifths in Layer 3.
- *What is the relationship of the “outer” layers, 1 and 3?*
Both layers are diatonic (with the exception of $C\flat$ in m. 38, and $F\flat$ in m. 42; these are addressed later.) Both are similar to their counterparts in the previous passage, except for orchestration.
- *Compare the linear motion of Layer 2 with that of Layers 1 and 3.*
In Layer 2, the (0,1,4,7) chords are connected by chromatic planing, moving in contrary motion to Layers 1 and 3.

³⁰ Walsh, *The Music of Stravinsky*, 49. (This quote refers specifically to the “Augurs of Spring” chord.)

- *How does this relationship recall the previous passage?*
It echoes the “voice exchange” idea heard in mm. 22-25. In m. 35 specifically, the outer voices of Layers 2 and 3 form cross-related exchanges: B $\flat$ to F/F $\flat$ (see Example 10).

Example 10. Cross-related voice exchanges in m. 35.

When discussing the questions above, it is likely that a student will say--incorrectly--that each line is “harmonized” with thirds, fifths, etc. This particular wrong answer is desirable if it presents the opportunity for a further clarification of the terminology. “Harmony,” in its narrowest sense, refers to the functional, goal-oriented process of chord ordering that underlies tonal music. In a broader sense, it may connote any progression of chords that functions within a composer’s self-defined syntax. (e.g., there is harmonic function in Prokofiev’s music, even though it is not in the strictest sense “tonal” music.) But neither of these conditions exists in this passage (nor, for that matter, in the entire movement). There is no harmony here, only three lines of counterpoint, each thickened by planing--diatonic on the outside and chromatic in the middle. Again, this is the time when good habits should be forged: The terms “sonority,” “chord,”³¹ or even the popular (if unwieldy) “simultaneity” should be encouraged, but the treatment of this

³¹ While it can be argued that “chord” implies common-practice harmony, it also prepares the class for the subsequent introduction of “trichord,” “tetrachord,” etc.

passage is most definitely *not* a "harmonization."³²

Before leaving this passage, a final set of discussion questions may be explored:

- *What are the only two chromatic pitches present in the outer layers and how do they relate to the E $\flat$ Dorian scale?*

They are C $\flat$ in m. 38 and F $\flat$ in m. 42. These pitches are half steps above scale degrees $\hat{1}$ and $\hat{5}$, respectively. The C $\flat$ may be heard as a chromatic passing tone connecting the diatonic pitches B $\flat$ and C $\natural$. In the culminating chord of the passage (m. 42), the lower boundary tone E $\flat$ is superseded by F $\flat$.³³

- *How is the presence of these two pitches (F $\flat$ and C $\flat$) foreshadowed in the previous section?*

Their diatonic counterparts, F $\natural$ and C $\natural$, are the boundary tones of Melody 2. (See Example 7). The mild whole-step dissonance against scale degrees $\hat{1}$ and $\hat{5}$ in the previous passage is now replaced with half-steps against the same scale degrees.

At this point the entire *pesante* may be summarized as a metaphorical tug-of-war between boundary tones and structural dissonance. Where dissonance appears, boundary tones respond by reaching to the tonic or dominant, offering the listener a temporary sense of harmonic stability. The counter-maneuver at m. 32 is emphatic: Chromatic neighbors in the orchestral *tutti* provide even sharper dissonance against $\hat{1}$, $\hat{5}$, and $\hat{3}$. Here the melody again reaches for the first and fifth degrees, this time in a higher register. At the same time, the overall diatonic structure begins to fail, first in the melody (C $\flat$ at m. 38), then in the bass (F $\flat$ at m. 42), causing the impasse that ends the section.³⁴

³² To muddy the terminology a bit further, "harmonic" is perfectly acceptable (as evidenced by Forte's book title) to describe two or more tones sounding together (e.g., a harmonic interval versus a melodic one).

³³ In the context of a course on the entire *Rite of Spring*, the relationship of this sonority to the F $\flat$ /E $\flat$ "Augurs of Spring" polychord cannot be overlooked.

³⁴ Hill, *Stravinsky: The Rite of Spring*, 67.

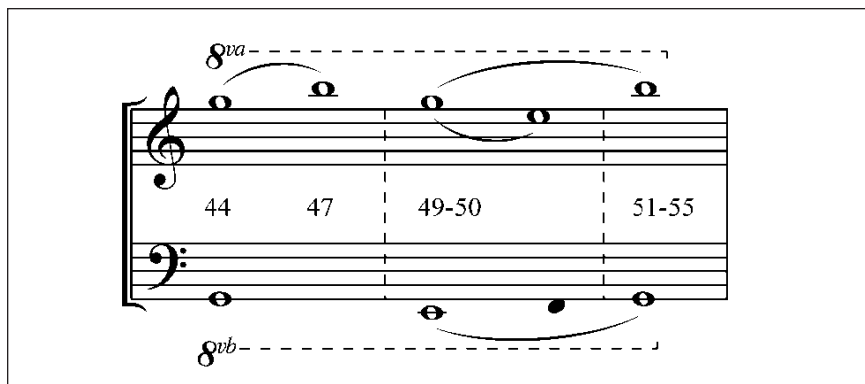
● = Structural dissonance ○ = Consonant boundary tone

Example 11. Overview of boundary tones and structural dissonance in the *pesante* section (mm. 7-42).

The *Vivo* section (mm. 43-54) is quite short in proportion to the rest of the movement (depending on the recording one uses, it accounts for about seven percent of the total time), and my remarks about it will be correspondingly brief. The section is characterized by a G pedal tone, embellished by arcing figures in the strings and high winds. If students are using the orchestral score, they will easily see two layers, recalling the same technique that has been at work throughout the movement. There is a diatonic line (in this case, all “white notes”) in the flute, second violin, and cello, and a chromatic line divided among the remaining instruments in motion. (In the piano-four-hand score, these two “lines” are, for the most part, divided between the hands of the *secondo* player.) The orchestral *tutti* chords that punctuate the section might well serve as a foundation for the further exploration of set theory: The entire chordal collection yields two (0,1,3,4) sets: C-D $\flat$ -E $\flat$ -E and G-A $\flat$ -B $\flat$ -B. Once students encounter this tetrachord, ubiquitous in Stravinsky’s early work, the path is clear to introduce octatonicism, as well as Stravinsky’s technique of diatonic/octatonic superimposition.³⁵ Of course, no serious discussion of the *Rite* is well-served by overlooking the octatonic scale, but it is doubtful that the instructor will have sufficient time to get there in a single class period. A carefully written homework assignment will get students thinking about these concepts--and presumably prepared to discuss them in the subsequent class meetings.

To conclude our first-day analysis let us examine the most prominent pitches of the *Vivo*. The boundary tones of the punctuating chords reveal a focus on G, reaching outward to B above and E below (Example 12):

³⁵ Two (0,1,3,4) tetrachords separated by a whole step will yield a Dorian scale (e.g., C-D-E $\flat$ -F / G-A-B $\flat$ -C). If the upper tetrachord is shifted down a half step, the result is an octatonic collection (C-D-E $\flat$ -F / F $\sharp$ -G $\sharp$ -A-B). A beautifully clear example of this technique may be found in Bartók’s “Song of the Harvest,” No. 33 of *Forty-Four Violin Duets*.



Example 12. mm. 44-55 Boundary tones in the *Vivo* section.

The resulting E minor triad, articulated over the duration of the passage, recalls the three principal chromatic interpolations of the previous section:

E (F $\flat$) - The lower boundary of the closing chord of the *pesante* section (m. 42)

G - The alternate third scale degree to G $\flat$

B (C $\flat$) - The only chromatic pitch to infiltrate Melody 2 (m. 38)

Another inroad to octatonic language may be found in the bass motives for each section: The ostinato of the *pesante* begins with E $\flat$ -F-G $\flat$ (0,2,3), while the principal bass pitches of the *Vivo* are E-F-G (0,1,3). Either of these trichords (whole-half or half-whole) may form the basis for an octatonic collection. The overall transformation from the first trichord to the second is echoed in the movement's coda: The last four bars of the melody are transposed up a whole step from the introduction so that the melody now ends on G instead of F.

By beginning in familiar territory and proceeding logically and incrementally through increasing layers of dissonant color, Stravinsky's "Spring Rounds" has the power to gain students' aesthetic trust as it equips them with a basic frame of mind for confronting the twentieth-century canon. As each new level of dissonance is introduced, it is mitigated by a consonant boundary tone, in a system of musical checks and balances. Moreover, the movement is a clear example of Stravinsky's contrapuntal techniques, specifically the interaction of the diatonic and the chromatic (representing the human and supernatural realms³⁶) that defines the composer's Russian period. Arguably the most accessible movement of the *Rite*, "Spring Rounds" is an ideal

³⁶ Hill, *Stravinsky: The Rite of Spring*, 45.

gateway for further study of twentieth-century musical language. Granted, as long as there are music theory classes, there will be students who remain unconvinced that this or any other analysis can make aesthetic sense of dissonant sounds. But for many, it can be the first step toward understanding and appreciating the works of the twentieth century.

BIBLIOGRAPHY

- Antokoletz, Elliott. "Interval Cycles in Stravinsky's Early Ballets." *Journal of the American Musicological Society* 39/3 (1986): 578-614.
- Berger, Arthur. "Problems of Pitch Organization in Stravinsky." *Perspectives of New Music* 2/1 (1963): 11-42.
- Boulez, Pierre. *Notes of an Apprenticeship*. New York: Knopf, 1968.
- Clendinning, Jane Piper, and Elizabeth West Marvin. *The Musician's Guide to Theory and Analysis*. New York: W. W. Norton and Company, 2005.
- Cummings, Craig. "Three Introductory Miniatures for an Undergraduate Twentieth-Century Analysis Course." *Journal of Music Theory Pedagogy* 8 (1994): 159-178.
- Forte, Allen. *The Harmonic Organization of "The Rite of Spring"*. New Haven and London: Yale University Press, 1978.
- Hill, Peter. *Stravinsky: The Rite of Spring*. Cambridge; New York: Cambridge University Press, 2000.
- Nelson, Richard B. "The College Music Society Music Theory Undergraduate Core Curriculum Survey." *College Music Symposium* 42 (2002): 60-75.
- Rahn, John. *Basic Atonal Theory*. New York: Schirmer, 1980.
- Straus, Joseph. "Stravinsky's Tonal Axis." *Journal of Music Theory* 26/2 (1982): 261-290.
- Stravinsky, Igor, and Robert Craft. *Expositions and Developments*. Berkeley, CA: University of California Press, 1962.
- Taruskin, Richard. *Stravinsky and the Russian Traditions: a biography of the works through "Mavra"*. Berkely, CA: University of California Press, 1996.
- Turek, Ralph. *Accompaniment to the "Analytical Anthology of Music"*. New York: Knopf, 1984.
- Tymoczko, Dimitri. "Stravinsky and the Octatonic: A Reconsideration." *Music Theory Spectrum* 24/1 (2002): 68-102.
- Van den Toorn, Pieter C. *Stravinsky and the "Rite of Spring"*. Berkeley: University of California Press, 1987.
- . *The Music of Igor Stravinsky*. New Haven and London: Yale University Press, 1983.
- Walsh, Stephen. *The Music of Stravinsky*. Oxford: Clarendon Press, 1988.